



ESSENTIALS OF
**PSYCHIATRIC MENTAL
HEALTH NURSING**
THIRD EDITION

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Jump in, or read through this introduction to orient yourself before you begin.

How do I get started? Click the “Contents” box in the lower right-hand corner of the page and choose a chapter.

How do I navigate around my screen? Use the cursor or “hand” icon to move around the screen.

What does the “index finger” mean? When the hand icon changes to an “index finger,” you can get more information about the topic by clicking your mouse once.

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How do I go back to the Table of Contents? Click the “Contents” box in the lower left-hand corner of your screen.

Is there any way to tell where I am on the disk? Yes. You can access the “bookmarks,” which shows you graphically where you are both in the chapter and on the page, by clicking on the **</>** icon in the bottom far left-hand corner of the toolbar. A partial screen will appear on the left. Use your cursor to move around the screen.

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Learning Activities

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EGO DEFENSE MECHANISMS—DEFINITIONS

In the box below, circle the names of the ego defense mechanisms defined as follows. The names may be identified in either direction vertically, horizontally, or diagonally. Number one is completed as an example.

1. Feelings are transferred from one target to another that is considered less threatening or neutral.
2. A mechanism that is used to symbolically negate or cancel out a previous action or experience that one finds intolerable.
3. The separation of a thought or a memory from the feeling, tone, or emotions associated with it.
4. Refusal to acknowledge the existence of a real situation or the feelings associated with it.
5. The beliefs and values of another individual are internalized and symbolically become a part of the self, to the extent that the feeling of separateness or distinctness is lost.
6. An attempt to increase self-worth by acquiring certain attributes and characteristics of an individual one admires.
7. A retreat to an earlier level of development and the comfort measures associated with that level of functioning.
8. Covering up a real or perceived weakness by emphasizing a trait one considers more desirable.
9. The involuntary blocking of unpleasant feelings and experiences from one's awareness.
10. Feelings or impulses unacceptable to one's self are attributed to another person.
11. The voluntary blocking of unpleasant feelings and experiences from one's awareness.
12. Attempting to make excuses or formulate logical reasons to justify unacceptable feelings or behaviors.

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Z	U	P	N	R	A	A	S	T	R	O	E	A	N	T	
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THE GRIEF RESPONSE

Kubler-Ross identified five stages of the grief response: denial, anger, bargaining, depression, and acceptance. Fill in the blank with the appropriate stage that describes the verbal or behavioral response.

1. "I never want to see you again!" _____
2. "Cancer. It can't be! You must have made a mistake!" _____
3. "At last I feel at peace with myself." _____
4. "I'll go to church every Sunday if I can just live till my daughter grows up." _____
5. "I wish I had been a better mother." _____
6. "Why me? I don't deserve this!" _____
7. "I'm feeling much better today. I think I should get a second opinion." _____
8. "I feel as though I'm betraying my family. They depend on me so." _____
9. "If God will only let me live till Christmas. I swear I won't ask for another thing."

10. "My family is ready, and so I can rest easy now." _____

CLINICAL EXERCISE

Have students keep a record of ego defense mechanisms they observe being used. These may be identified in the clinical setting, with their classmates, or with families or friends. Have them share these observations in their student group.

ID, EGO, AND SUPEREGO

Identify whether each of the behaviors described below is being directed by the id, ego, or superego components of the personality.

- _____ 1. Mary stole some makeup off the shelf at the department store.
- _____ 2. Mary began to feel very guilty for taking the makeup after she got home with it.
- _____ 3. Mary took the makeup back to the store and apologized to the clerk for taking it.
- _____ 4. Two-year-old Sandy has a temper tantrum when her Mother takes a dangerous toy away from her.
- _____ 5. Sandy sucks on her thumb for comfort.
- _____ 6. Frankie wants to do well on the algebra test and stays home to study instead of going out with his friends.
- _____ 7. Frankie does not do as well on the algebra test as he had hoped. He becomes despondent and refuses to come out of his room for days.
- _____ 8. Jack joins his friends when they invite him to drink beer and smoke marijuana with them.
- _____ 9. After having a few beers, Jack decides not to drive his car home.
- _____ 10. Jack tells his parents he is sorry for drinking beer and smoking marijuana.

BEHAVIORS IDENTIFIED BY ERIKSON'S STAGES OF DEVELOPMENT

Match the behaviors or statements described on the right with Erikson's stages of development listed on the left. Both achievement and non-achievement are reflected in the choices.

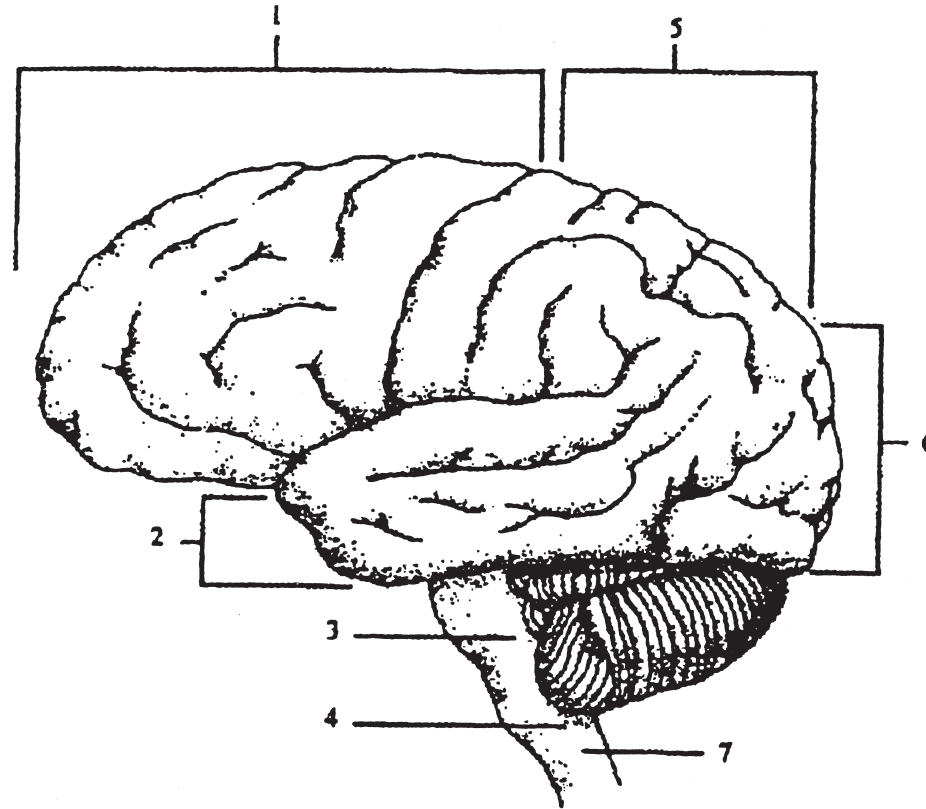
- | | |
|--------------------------|---|
| _____ 1. Trust | a. "I don't like people. I'd rather be alone." |
| _____ 2. Mistrust | b. "Get away from me with that medicine. I know you are trying to poison me!" |
| _____ 3. Autonomy | c. "I feel good about my life. I have a lot to be thankful for." |
| _____ 4. Shame and Doubt | d. Five-year-old girl believes she is the cause of her parents' divorce. |

Continued on the following page

- _____ 5. Initiative
- _____ 6. Guilt
- _____ 7. Industry
- _____ 8. Inferiority
- _____ 9. Identity
- _____ 10. Role Confusion
- _____ 11. Intimacy
- _____ 12. Isolation
- _____ 13. Generativity
- _____ 14. Stagnation
- _____ 15. Ego Integrity
- _____ 16. Despair
- e. "Sure, I'll loan you \$10 till your next payday."
- f. "I don't know what I want to do with my life. College? Work? What kind of job would I get anyway?"
- g. "Mommy! Mommy! I made all A's on my report card!"
- h. "I'll have to ask my husband. He's the decision maker in our family."
- i. "When I graduate from college I want to work with handicapped children."
- j. "I plan to work as hard as necessary to help women achieve equality. I plan to see this happens before I die."
- k. "I hate this place. No one cares what I do anyway. It's just a way to bring home a pay-check."
- l. "Look, Mom! I ironed this blouse all by myself!"
- m. "If only I could live my life over again. I'd do things so much differently. I feel like a nothing."
- n. "I could never be a nurse. I'm not smart enough."
- o. "Yes, I will be the chairperson for the cancer drive."
- p. "I have been the Girl Scout leader for Troop 259 for 7 years now."

PARTS OF THE BRAIN

Label the parts indicated.

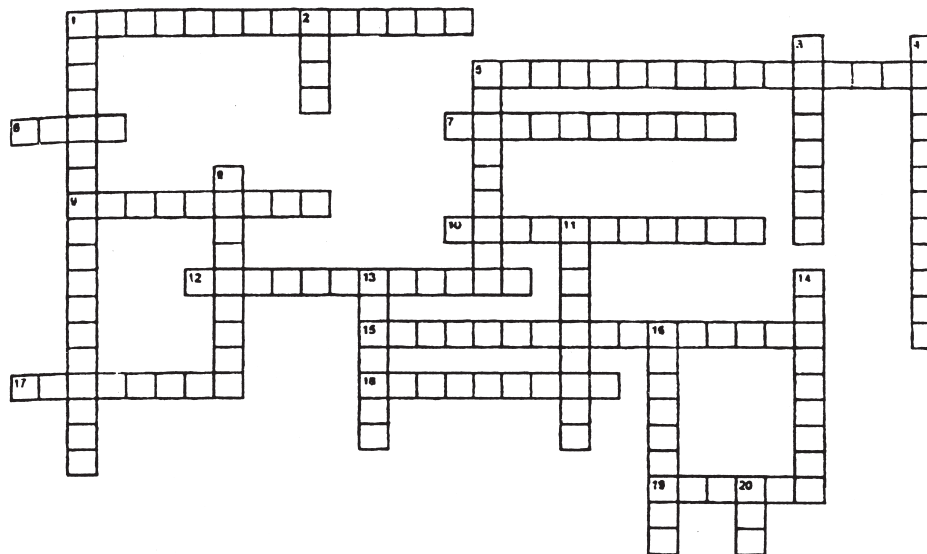


- _____ Frontal lobe
- _____ Parietal lobe
- _____ Temporal lobe
- _____ Occipital lobe

- _____ Medulla
- _____ Cerebellum
- _____ Pons

Continued on the following page

CROSSWORD PUZZLE



ACROSS

1. Neurotransmitter released in response to stress
5. Study of the implications of the immune system in psychiatry
6. Part of the neuron that carries impulses away from the cell body
7. Structure of the brain associated with muscular coordination and posture
9. Part of the neuron that carries impulses toward the cell body
10. Cells of the immune system
12. Sometimes called the “emotional brain” (two words)
15. Chemical stored in the axon terminals neurons
17. Part of the neuron that contains the nucleus (two words)
18. Hormone that stimulates breast milk production and may play a role in depression
19. A nerve cell

DOWN

1. The study of hormones functioning within the neurological system
2. Structure of the brain associated with regulation of respiration
3. Increased levels of this neurotransmitter are implicated in schizophrenia
4. Structure of the brain that controls pituitary function
5. The physical characteristics of a particular genotype
8. Sometimes called the “master gland”
11. Neurotransmitter that mediates allergic and inflammatory reactions
13. The junction between two neurons
14. Neurotransmitter thought to induce sleep and is decreased in depression
16. Hormone secreted by the pineal gland; implicated in the etiology of depression
20. Rapid eye movement; dream cycle sleep

ETHICAL AND LEGAL ISSUES IN PSYCHIATRIC/MENTAL HEALTH NURSING

Identify the following key terms associated with ethical and legal issues in psychiatric/mental health nursing with the descriptions or definitions listed below.

- | | |
|-----------------------|-------------------|
| a. assault | j. Kantianism |
| b. battery | k. malpractice |
| c. beneficence | l. natural law |
| d. Christian ethics | m. nonmaleficence |
| e. torts | n. slander |
| f. common law | o. statutory law |
| g. libel | p. utilitarianism |
| h. ethical egoism | q. civil law |
| i. false imprisonment | r. criminal law |

- ____ 1. Ethical theory by which decisions are based on a sense of duty
- ____ 2. Writing false and malicious information about a person
- ____ 3. The touching of another person without consent
- ____ 4. Provides protection from conduct deemed injurious to the public welfare
- ____ 5. Abstaining from negative acts toward another, including acting carefully to avoid harm
- ____ 6. An act resulting in a person's genuine fear and apprehension that he or she will be touched without consent
- ____ 7. The theory on which decisions are based in which evil acts are never condoned, even if they are intended to advance the noblest of ends
- ____ 8. A violation of a civil law in which an individual has been wronged

Continued on the following page

- ___ 9. The ethical theory on which decisions are based that ensure the greatest happiness to the greatest number of people.
- ___ 10. The deliberate and unauthorized confinement of a person within fixed limits by the use of threat or force
- ___ 11. The failure of a professional to perform, or refrain from performing, in the manner, which a reputable member within the profession would be expected to perform
- ___ 12. An ethical principle that refers to one's duty to benefit or promote the good of others
- ___ 13. Law that has been enacted by legislative bodies
- ___ 14. Verbalizing false and malicious information about a person
- ___ 15. An ethical theory that espouses making decisions based on what is most advantageous for the person making the decision
- ___ 16. Law that is derived from decisions made in previous cases
- ___ 17. Law that protects the private and property rights of individuals and businesses
- ___ 18. The ethical theory that espouses "Do unto others as you would have others do unto you."

I. CONDITIONS ESSENTIAL TO DEVELOPMENT OF A THERAPEUTIC RELATIONSHIP

Situation: Pam comes to the psychiatric clinic for assistance with more adaptive coping. Nurse Jones will be her therapist. Match the behaviors described on the right with the essential condition for therapeutic relationship development listed on the left.

- | | |
|---------------------|--|
| ____ 1. Rapport | a. Nurse Jones does not approve of Pam's gay lifestyle but accepts her unconditionally nonetheless. |
| ____ 2. Trust | b. Nurse Jones and Pam develop an immediate mutual regard for each other. |
| ____ 3. Respect | c. Pam knows that Nurse Jones is always honest with her and will tell her the truth even if it is sometimes painful. |
| ____ 4. Genuineness | d. Pam knows that Nurse Jones will not tell anyone else about what they discuss in therapy. |
| ____ 5. Empathy | e. When Pam talks about her problems, Nurse Jones listens objectively and encourages Pam to reflect on her feelings about the situation. |

II. PHASES OF RELATIONSHIP DEVELOPMENT

Identify the appropriate phase of relationship development for each of the following tasks. The four phases include:

- a. Preinteraction phase
 - b. Orientation (introductory) phase
 - c. Working phase
 - d. Termination phase
- ____ 1. Pam and Nurse Jones set goals for their time together.
- ____ 2. Nurse Jones reads Pam's previous medical records.
- ____ 3. Having identified Pam's problem, they discuss aspects for possible change and ways to accomplish them.
- ____ 4. They establish a mutual contract for intervention.
- ____ 5. The established goals have been met.

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- _____ 6. Nurse Jones explores her feelings about working with a gay person.
- _____ 7. Pam weighs the benefits and consequences of various alternatives for change.
- _____ 8. Pam and Nurse Jones discuss a plan of action for Pam to employ in the advent of stressful situations following therapy.
- _____ 9. Pam cries and says she cannot stop coming to therapy.
- _____ 10. Nurse Jones gives Pam positive feedback for attempting to make adaptive changes in her life.

III. INTERPERSONAL COMMUNICATION TECHNIQUES

After reading the communication on the left, indicate what technique the nurse has used, and whether the technique is therapeutic or nontherapeutic. Selections may be made from the list below. (Client [Ct], Nurse [Ns])

Giving recognition	Indicating an external source of power	Giving advice
Focusing	Voicing doubt	Belittling feelings
Giving reassurance	Exploring	Reflecting
Giving broad openings	Requesting an explanation	Rejecting
Verbalizing the implied	Restating	Defending

1. Ct: "The FBI wants to kill me."
Ns: "I find that hard to believe." _____ T N
2. Ns Asst: "Mr. J. always calls me sweetie pie. I get so angry when he does that."
Ns: "Perhaps you should consider how *he* is feeling." _____ T N
3. Ct: "My daddy always tucked me into bed at night."
Ns: "I'd like to talk more about your relationship with your father." _____ T N
4. Ns to Ct: "Good morning, Sue. I see you are wearing the hair bow you made in OT." _____ T N
5. Ct: "I didn't really mean it when I said I wanted to die."
Ns: "What makes you say those kinds of things?" _____ T N

Continued on the following page

6. Ct: "Do you think I should get a divorce?"
Ns: "What do you think would be best for you?" _____ T N
7. Ct: "Whenever I ask for a different therapy, my doctor just ignores me!"
Ns: "I'm sure he knows what's best for you." _____ T N
8. Ct: "We always had such fun on holidays when I was growing up."
Ns: "Tell me more about what it was like when you were a little girl." _____ T N
9. Ct: (Mute. Refusing to talk.)
Ns: "It must have been a horrible experience for you being the only survivor of the automobile accident." _____ T N
10. Ct: "I don't think my life will ever be the same again."
Ns: "Cheer up. Everything's going to be okay." _____ T N
11. Ct: "I feel like such a failure in the eyes of my family."
Ns: "You feel as though you have let your family down." _____ T N
12. Ct: "Do you think I should leave home and get an apartment of my own?"
Ns: "I think you would be much better off away from your parents." _____ T N
13. Ct: "Good morning, nurse."
Ns: "Good morning, Patricia. What would you like to talk about today?" _____ T N
14. Ct: "I'd like to talk about my relationship with my boyfriend, Jack."
Ns: "Oh, let's don't talk about that. You talk about that too much." _____ T N
15. Ct: "I want to call my husband."
Ns: "Why do you want to talk to him after the way he treated you?" _____ T N

THE NURSING PROCESS: A CASE STUDY

Read the following case study and follow the directions given below for application of the nursing process.

Situation: Sam is presented through the emergency department to the psychiatric unit of a major medical center. He was taken to the hospital by local police, who were called by department store security when Sam frightened shoppers by yelling loudly to “imaginary” people and threatened to harm anyone who came close to him.

On the psychiatric unit, Sam keeps to himself, and walks away when anyone approaches him. He talks and laughs to himself, and tilts his head to the side, as if listening. When the nurse attempts to talk to him, he shouts, “Get away from me. I know you are one of them!” He picks up a chair, as if to use it for protection.

Sam’s appearance is unkempt. His clothes are dirty and wrinkled, his hair is oily and uncombed, and there is an obvious body odor about him. The physician admits Sam with a diagnosis of paranoid schizophrenia, and orders chlorpromazine (Thorazine) and benztropine (Cogentin) on both a scheduled and p.r.n. basis.

1. Identify four segments of information from the assessment data that would be significant to nursing.

- a. _____
- b. _____
- c. _____
- d. _____

2. List appropriate nursing diagnoses from analysis of the data described in question 1.

- a. _____
- b. _____
- c. _____
- d. _____

3. Provide outcome criteria for the four nursing diagnoses.

- a. _____
- b. _____
- c. _____
- d. _____

4. Select appropriate nursing interventions to achieve the outcome criteria.

THE INTERDISCIPLINARY TEAM

Identify the appropriate member of the interdisciplinary team for the activity listed. Choices may be made from the following list:

Psychiatrist
 clinical psychologist
 mental health technician
 psychiatric social worker
 psychiatric clinical nurse specialist

psychiatric staff nurse
 occupational therapist
 psychodramatist
 recreational therapist

Art therapist
 dietitian
 chaplain
 music therapist

1. Accompanies clients to see a movie. _____
2. Helps clients identify unconscious feelings through their drawings. _____
3. Conducts psychological testing to assist the psychiatrist to determine a correct diagnosis. _____
4. Serves the spiritual needs of psychiatric clients. _____
5. Monitors nutritional needs for client with special requirements. _____
6. Teaches relaxation techniques through the use of music. _____
7. Conducts assertiveness training. _____
8. Prescribes electroconvulsive therapy for a depressed client. _____
9. Administers medication. _____
10. Locates appropriate placement for the client following hospital discharge. _____
11. Assists clients to increase self-esteem by providing small craft items for completion and display. _____
12. Assists a group of clients to perform in a safe environment a situation that otherwise would be too painful in real life. _____
13. Works 1:1 with clients and assists the psychiatric nurse in running the day-to-day activities of the milieu unit. _____

Continued on the following page

II. THE SEVEN BASIC ASSUMPTIONS OF A THERAPEUTIC COMMUNITY

There are seven basic assumptions upon which a therapeutic community is based. Identify the assumption (from the column on the right) that is the foundation for each of the situations listed on the left.

- | | |
|--|--|
| _____ 1. John came into the TV room and changed the channel in the middle of a program that several others were watching. The group reprimanded him loudly and returned the TV to the channel they had been watching. They told him they would not tolerate that kind of behavior. | a. The health in each individual is to be realized and encouraged to grow. |
| _____ 2. Even though she seemed unable to change, Nancy had a great deal of insight into her own behavior. She knew it was maladaptive, and she knew it had psychological implications. The nurse focused on Nancy's insight and knowledge to help her find more adaptive ways of coping. | b. Every interaction is an opportunity for therapeutic intervention. |
| _____ 3. George always started an argument in group therapy. Each time, the group calmed him down with their discussion. When he became violent, however, he was placed in isolation for the safety of himself and others. | c. The client owns his/her own environment. |
| _____ 4. Fred becomes angry whenever anyone in the group disagrees with him. Members of the group examine Fred's defensiveness and help him to see how he is coming across to others. They help him to practice more appropriate ways of responding. | d. Each client owns his or her behavior. |
| _____ 5. Lloyd had always been unable to interact on a personal level with other people. In the milieu environment, he learned new communication skills and had the opportunity to practice relationship development that helped him when he left the hospital. | e. Peer pressure is a useful and powerful tool. |
| _____ 6. Kevin told the nurse of being arrested for driving the getaway car in an armed robbery. He stated, "I don't know why they grabbed me. Jack did the stealing! He made me drive the car." The nurse responded, "Kevin, no one made you drive the car. You made that choice yourself. Now you must own up to that decision." | f. Inappropriate behavior is dealt with as it occurs. |
| _____ 7. Carol was elected unit president at the community meeting. She assigns chores for the week, and calls for a vote concerning late privileges for clients on Saturday night. | g. Restrictions and punishment are to be avoided. |



Learning Activities: *Chapter 8*

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Due to the nature of the material in Chapter 8 there is no Learning Activity.

I. TYPES OF CRISES

Match the situation on the left with the type of crisis listed on the right.

- | | |
|--|---|
| _____ 1. Twenty-four-year-old Harriet was informed that her husband was killed in an industrial accident at the plant where he works. An hour later, she was found walking down a busy high-way saying, "I'm looking for my lucky rabbit's foot. Everything will be okay if I can just find my lucky rabbit's foot." | a. Dispositional crisis |
| _____ 2. Ted was transferred on his job to a distant city. His wife, Jane, had never lived away from her family before. She became despondent, living only for daily phone calls to her relatives back in their hometown. | b. Crisis of anticipated life transition |
| _____ 3. Carrie knew when she married Matt that he had a drinking problem, but she believed he would change. Last night, after becoming intoxicated, Matt beat Carrie into unconsciousness. When she regained consciousness, he was gone. She took a taxi to the emergency department of the local hospital. | c. Crisis resulting from traumatic stress |
| _____ 4. Linda had a history of obsessive-compulsive disorder. She was phobic about germs, and washed her hands many times every day. Last night, after a party, she had sex with a fellow college student she barely knew. Today, she is extremely anxious, and keeps repeating that she knows she has AIDS. Her roommate cannot get her to come out of the shower. | d. Maturational or developmental crisis |
| _____ 5. At age 13, Sue was raped by her uncle. The abuse continued for several years. He threatened to kill her mother if she told. Sue is 23-years-old now and recently became engaged. She has never had an intimate relationship and experiences panic attacks at the thought of her wedding night. | e. Crisis reflecting psychopathology |
| _____ 6. Frank was very proud of his home. He had saved for many years to build it and had virtually built it from the ground up by himself. Last night, while he and his wife were visiting in a nearby town, a tornado ripped through his neighborhood and totally destroyed his home. Frank is devastated and for more than a week has sat and stared into space, barely eating, and rarely speaking. | f. Psychiatric emergency |

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II. CRISIS INTERVENTION: PROBLEM-SOLVING PROCESS

You are a nurse in the mental health clinic in the town to which Ted and Jane (Situation #2 in the previous activity) have moved. Ted brings Jane to your clinic and explains that she has become nonfunctional since their move. Use the steps of the problem-solving process with the objective of assisting Jane to overcome her despondency.

1. Confront the problem.
2. Identify realistic changes.
3. Explore coping strategies for aspects about her situation that cannot be changed.
4. Identify various alternatives for coping with the situation.
5. Weigh the benefits and consequences of each alternative.
6. Select the most appropriate alternative.

PSYCHOTROPIC MEDICATION QUIZ

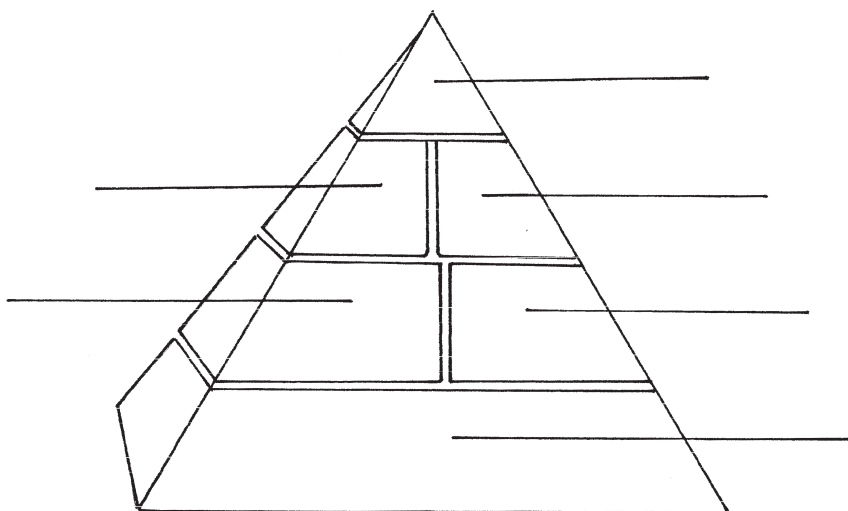
Please fill in the blanks and answer the questions in the space provided:

1. What is the mechanism of action by which antidepressant medications achieve the desired effect (different regardless of the physiological processes by which this action is accomplished)?
2. For what must the nurse be on the alert with the client who is receiving antidepressant medication?
3. As the nurse, when would you expect the client to begin showing signs of symptomatic relief after the initiation of antidepressant therapy?
4. Name an example of a tricyclic antidepressant. _____
Name an example of an MAOI. _____
Name an example of an SSRI. _____
5. Describe some common side effects and nursing implications for tricyclic antidepressants.
6. _____ is the most potentially life-threatening adverse effect of MAO inhibitors. Symptoms for which the nurse and client must be on the alert include: _____. What must be done to prevent these symptoms from occurring? (Your answer must include some examples.)
7. Lithium carbonate is the drug of choice for _____. Many times when these individuals are started on lithium therapy, the physician also orders an antipsychotic medication. Why might he or she do so?
8. There is a narrow margin between the therapeutic and toxic serum levels of lithium carbonate. What is the therapeutic range, and list the initial signs and symptoms of lithium toxicity.
9. Describe some nursing implications for the client on lithium therapy.
10. What is the mechanism of action for antianxiety medications?
11. What is the most commonly used group of antianxiety drugs? Give two examples.
12. What are the most common side effects of antianxiety drugs?
13. What must the client on long-term antianxiety therapy be instructed in order to prevent a potentially life-threatening situation?

Continued on the following page

14. What is the mechanism of action that produces the desired effect with antipsychotic medications (regardless of the physiological process by which this action is accomplished)?
15. Phenothiazines are a commonly used antipsychotic group. Give two examples of phenothiazines.
16. Describe potential adverse hormonal effects associated with antipsychotic therapy.
17. Agranulocytosis is a potential and very serious side effect of antipsychotic therapy. The nurse and client should be on the alert for symptoms of _____, _____, and _____.
18. Neuroleptic malignant syndrome (NMS) is a rare, but potentially fatal, side effect of antipsychotic drugs. List symptoms for which the nurse must be on the alert when assessing for NMS.
19. Describe the symptoms of extrapyramidal side effects associated with antipsychotic therapy.
20. What is the classification of medication that is commonly prescribed for drug-induced extrapyramidal reactions? Give two examples of these medications.
21. Describe a potentially life-threatening situation that could occur in the client who abruptly withdraws from long-term use of CNS stimulants.

Fill in the food pyramid with the appropriate food groups for each level and the number of servings suggested for each group.



Match the explanation of the therapeutic technique described on the left to the type of psychosocial therapy listed on the right.

- | | |
|---|--------------------------------|
| ___ 1. The therapist teaches Nancy to inhale deeply through her nose, hold her breath for a few seconds, then exhale slowly through her mouth with pursed lips. | a. Cognitive therapy |
| ___ 2. The therapist teaches Nancy to be truthful and assume responsibility for her own statements. | b. Relaxation therapy |
| ___ 3. The therapist hypnotizes Nancy to help her gain insight into problems she may be experiencing in her current life. | c. Reality therapy |
| ___ 4. Nancy sees the therapist for help with her depression. They meet for 10 sessions and focus on improving Nancy's ability in interpersonal relationships. | d. Assertiveness training |
| ___ 5. The therapist helps Nancy to identify behaviors that are interfering with the achievement of a satisfying life, and to choose more effective behaviors. | e. Psychoanalysis |
| ___ 6. The therapist helps Nancy to identify and change negative patterns of thinking | f. Interpersonal psychotherapy |

DELIRIUM, DEMENTIA, AND AMNESTIC DISORDERS

Check whether the behaviors described on the left are characteristic of delirium, dementia, or amnesic disorder (may apply to more than one condition).

	Delirium	Dementia	Amnesic Disorder
1. Duration of the disorder is commonly brief.	___	___	___
2. Client uses confabulation to hide cognitive deficits.	___	___	___
3. Symptoms may be confused with depression	___	___	___
4. Can be caused by a series of small strokes.	___	___	___
5. Is commonly reversible	___	___	___
6. Denial that a problem exists is common.	___	___	___
7. Level of consciousness is affected	___	___	___
8. Reversibility occurs in only a small percentage of cases.	___	___	___
9. Severe migraine headache can cause transient symptoms.	___	___	___
10. Personality change is common.	___	___	___
11. Illusions and hallucinations are common symptoms.	___	___	___
12. Symptoms can occur as a result of cocaine intoxication.	___	___	___
13. Symptoms can occur as a result of alcohol withdrawal.	___	___	___
14. High concentrations of aluminum in the brain have been implicated in the etiology of this disorder.	___	___	___
15. Transient symptoms of this disorder can occur following electroconvulsive therapy.	___	___	___

SYMPTOMS ASSOCIATED WITH PSYCHOACTIVE SUBSTANCES

Fill in the spaces provided with the most common examples and symptoms of substance-related disorders of which the nurse should be aware.

Drugs	Symptoms of Use	Symptoms of Intoxication	Symptoms of Withdrawal
CNS Depressants Examples:			
CNS Stimulants Examples:			
Opioids Examples:			
Hallucinogens Examples:			
Cannabinols Examples:			
Inhalants Examples:			

I. BEHAVIORS ASSOCIATED WITH SCHIZOPHRENIA

- | | |
|---|---|
| <p>___ 1. Autism</p> <p>___ 2. Mutism</p> <p>___ 3. Hallucination</p> <p>___ 4. Persecutory delusion</p> <p>___ 5. Word salad</p> <p>___ 6. Religiosity</p> <p>___ 7. Associative looseness</p> <p>___ 8. Inappropriate affect</p> <p>___ 9. Paranoia</p> <p>___ 10. Magical thinking</p> <p>___ 11. Neologism</p> <p>___ 12. Clang association</p> <p>___ 13. Waxy flexibility</p> <p>___ 14. Regression</p> <p>___ 15. Delusion of grandeur</p> | <p>a. Kneels to pray in front of water fountain; prays during group therapy and during other group activities.</p> <p>b. Refuses to eat food that comes on tray, stating, "They are trying to poison me."</p> <p>c. "When I get out of the hospital I'm going to buy me a sprongle."</p> <p>d. Does not talk.</p> <p>e. Keeps arm in position nurse left it after taking blood pressure. Assumed this position for hours.</p> <p>f. "When I speak, presidents and kings listen."</p> <p>g. A withdrawal inward into one's own fantasy world.</p> <p>h. "I'm going to the circus. Jesus is God. The police are playing for keeps."</p> <p>i. "We can't close the drapes, for if we do, the sun won't shine."</p> <p>j. "Test, test, this is a test. I do not jest; we get no rest."</p> <p>k. Laughs when told that his or her mother has just died.</p> <p>l. In response to stressful situation, begins to suck thumb and soils clothing.</p> <p>m. "Get by for anyone just to answer fortune cookies."</p> <p>n. "If the FBI finds me here, I'll n ever get out alive."</p> <p>o. Stops talking in mid-sentence, tilts head to side, and listens.</p> |
|---|---|

II. CASE STUDY

Read the following case study and fill in the blanks with the description of the information that is underlined and numbered in the text. The first is completed as an example.

Continued on the following page

Situation: Sandra is a 37-year-old woman who was picked up by the police after she ran away from her parents' home. Sandra has a history of paranoid schizophrenia for 17 years. She has had numerous hospitalizations.

Police were called when Sandra began wandering through a local park and screaming at everyone, "I know you are possessed by the devil!" During her initial interview, she is very guarded and suspicious of the nurse (1).

(1) _____paranoia_____

"I can read your mind, you know." (2)

(2) _____

Sandra is assigned to a room and oriented to the unit. At 5:00 p.m., the nurse says to Sandra, "Sandra, it's time for dinner." Sandra responds, "time for dinner; time for dinner; time for dinner."(3)

(3) _____

The nurse notices that each time she wipes her mouth with her napkin at dinner, Sandra does the same.(4)

(4) _____

Sandra's mother reports that Sandra stopped taking her medicine about a month ago, stating, "When you don't have a brain, (5) you don't need brain medicine." Shortly afterward, she became totally despondent, taking no pleasure in activities she had always found enjoyable.(6) She stayed in her room, sitting on her bed moving back and forth in a slow, rhythmic fashion.(7) Sometimes she would not even get up to go to the bathroom, instead soiling herself in an infantile manner.(8)

(5) _____

(6) _____

(7) _____

(8) _____

She seemed to experience a total lack of energy for usual activities of daily living.(9) On the unit, Sandra appears disinterested in everything around her.(10) She sits alone, talking and laughing to herself.(11) At one point she hears a laugh track on TV and states, "They're laughing at me. I know they are." (12)

(9) _____

(10) _____

(11) _____

(12) _____

Sandra's anxiety level starts to rise. She begins to pace the floor. Her agitation increases and she finally picks up a chair and hurls it toward the nurses' station, yelling, "The devil says all blonds must be annihilated!"

- a. What would be Sandra's priority nursing diagnosis?
- b. What medication would you expect the physician to order for Sandra?
- c. For what adverse effects would you be on the alert with this drug?
- d. In what developmental stage (Erikson) would you place Sandra? Why?
- e. Theoretically, in what developmental stage *should* she be?

SYMPTOMS OF MOOD DISORDERS

Beside each of the behaviors listed below, write the letter that identifies the disorder in which the behavior is most prevalent. The first one is completed as an example.

- | | |
|------------------------------|-----------------------------|
| a. Dysthymic Disorder | d. Cyclothymic Disorder |
| b. Major Depressive Disorder | e. Bipolar Disorder (Mania) |
| c. Transient depression | f. Delirious mania |

- c 1. Feeling of the “blues” in response to everyday disappointments.
___ 2. A clouding of consciousness occurs.
___ 3. Outlook is gloomy and pessimistic.
___ 4. Characterized by mood swings between hypomania and mild depression.
___ 5. Feelings of total despair and hopelessness.
___ 6. Physical movement may come to a standstill.
___ 7. Paranoid and grandiose delusions are common.
___ 8. Feels at their best early in the morning and continually feels worse as the day progresses.
___ 9. Excessive interest in sexual activity.
___ 10. Able to carry out thoughts of self-destructive behavior.
___ 11. Feels at their worst early in the morning and somewhat better as the day progresses.
___ 12. Accelerated, pressured speech.
___ 13. Frenzied motor activity characterized by agitated, purposeless movements.

BEHAVIORS ASSOCIATED WITH ANXIETY DISORDERS

Identify with which anxiety disorder the behaviors listed are associated. The first one is completed as an example.

- a. Panic disorder b. Agoraphobia c. Post-traumatic stress disorder d. Specific phobia
e. Generalized anxiety disorder f. Social phobia g. Obsessive-compulsive disorder

- d 1. Janet becomes panicky when she gets near a dog.
___ 2. Patricia weighs and measures her food. Long after everyone else has finished eating, she is still calculating the caloric value and remeasuring the amount.
___ 3. Frances will not leave her home unless a friend or relative goes with her.
___ 4. Harold has intrusive thoughts and sometimes visual illusions of his platoon's invasion of a village in Vietnam.
___ 5. Sonja refuses to eat in a restaurant. She is afraid others will laugh at the way she eats.
___ 6. About once a week, without warning, Stanley's heart begins to pound, he becomes short of breath and sometimes he experiences chest pain. The doctor has ruled out physical problems.
___ 7. Janie wants desperately to visit a foreign country with her friends, but because of her fear of needles, she has not been able to receive the required immunizations.
___ 8. Helen is a very restless person. She is always nervous and keyed up. She worries about many things over which she has no control.
___ 9. Timmie's family recently survived a tornado by taking refuge in the basement of their home. The home and all of its contents were destroyed. Timmie has nightmares about the event.
___ 10. George never volunteers to speak in class. He is afraid his classmates will laugh at what he says.
___ 11. Carl will go to church, but only if he can sit right near the door.
___ 12. When Sally sees a spider on the floor, she screams and runs out of the room.
___ 13. Every day when Wanda goes home from work, she cleans her house. She has told her friends not to call her during this time, and if anything interferes with her cleaning, she becomes very upset, and starts over from the beginning.
___ 14. Don has always been an excellent student and was valedictorian of his high school graduating class. Since starting college, he has been unusually worried about his academic performance. Lately, he has been unable to sleep, is irritable, has difficulty concentrating, and has begun experiencing nausea and vomiting due to worry that he will not do well academically.
___ 15. Last month, on her way out of the hospital after working the evening shift, Amanda was abducted by a man with a gun, taken to a remote area, and raped. Since that time, she has become detached and estranged from her friends; she has difficulty sleeping, and has had problems concentrating at work.

EXERCISE I. BEHAVIORS ASSOCIATED WITH SOMATOFORM DISORDERS

Identify with which somatoform disorder the behaviors listed are associated. List the primary nursing diagnosis for each.

- a. Somatization disorder
- b. Pain Disorder
- c. Hypochondriasis
- d. Conversion Disorder
- e. Body Dysmorphic Disorder

____ 1. Nancy fell on the ice last winter and injured her elbow. She complains that she has had pain ever since, even though x-rays reveal the elbow has healed appropriately.

Nursing diagnosis: _____

____ 2. Virginia has some freckles across her nose and cheeks. She visits dermatologists regularly trying to find one who will “get rid of these huge spots on my skin.”

Nursing diagnosis: _____

____ 3. Franklin is assigned to secure a contract for his company. The boss tells Franklin, “If we don’t get this contract, the company may have to fold.” When Franklin wakes up on the morning of the negotiations, he is unable to see. The doctor has ruled out organic pathology.

Nursing diagnosis: _____

____ 4. Sarah has had what she calls a “delicate stomach” for years. She has sought out many physicians with complaints of nausea and vomiting, abdominal pain, bloating, and diarrhea. No organic pathology can be detected.

Nursing diagnosis: _____

____ 5. John’s father died of a massive myocardial infarction when John (now aged 34) was 15-years old. The two of them were playing basketball at the time. Since then, John becomes panicky when he feels his heart beating faster than usual. He takes his pulse several times a day, and seeks out a physical exam from his physician several times a year.

Nursing diagnosis: _____

Continued on the following page

EXERCISE II. BEHAVIORS ASSOCIATED WITH DISSOCIATIVE DISORDERS

Identify with which dissociative disorder the behaviors listed are associated.

- a. Localized amnesia b. Selective amnesia c. Generalized amnesia d. Continuous amnesia
e. Dissociative Fugue f. Dissociative Identity Disorder g. Depersonalization Disorder

- ____ 1. A young man is brought into the emergency department by the police. He does not know who he is or anything at all about his life.
- ____ 2. A young man is brought into the emergency department by the police. He gives his identity and home address (which is several hundred miles away) to the admissions clerk. He tells the nurse he is very frightened, for he doesn't know when or how he came to be in this place.
- ____ 3. Sandra is a clerk in an all-night convenience store. Three nights ago, the store was robbed at gunpoint, and Sandra was locked in a storage compartment for several hours until the manager was contacted by passersby who reported the robbery. She has been unable to recall the incident until just today, when details began to emerge. She is now able to report the entire event to the authorities.
- ____ 4. Sam is a salesman for a leading manufacturing company. His job requires that he make presentations for large corporations who are considering his company's product. Sam is up for promotion, and realizes that the outcomes of these presentations will weigh heavily on whether he gets the promotion. Lately, he has been worried that he is going insane. Each time he is about to make a presentation, his thinking becomes "foggy," his body feels without life, and he describes the feeling as being somewhat "anesthetized." These episodes sometimes last for hours, and are beginning to interfere with his performance.
- ____ 5. Melody's husband complained of severe chest pain. Melody called the ambulance and accompanied her husband to the hospital. He died of a massive myocardial infarction in the emergency department. With the help of family and friends, Melody made arrangements for the memorial service and the burial. Now that it is all over, Melody is able to remember only certain aspects about the time since her husband first experienced the severe pain. She remembers the doctor telling her that her husband was dead, but she cannot remember attending the funeral service.
- ____ 6. Margaret explains to the nurse that during the last year, she has had periods of time for which she cannot account. She has been attending college, and she finds pages of notes in her notebook that she cannot recall writing. Her roommate recently recounted an incident that took place when they were supposedly out together, for which Margaret has no recall. Most recently, she has been hospitalized when her roommate found her unconscious in their room with an empty bottle of sleeping pills beside her. She tells the nurse she has no memory of taking the pills.
- ____ 7. Kelly was involved in an automobile accident in which her best friend was killed. Kelly remembers nothing about the accident, nor does she remember anything that has occurred since the accident.

VALUES CLARIFICATION

Answer the following questions. Move into small groups, analyze, and discuss your answers.

1. As a child, when was the first time you discussed sex? With whom?
2. As an adolescent, when was the first time you began to notice a change in your body? Were you proud of it? Did you want to change it in any way?
3. Did your parents talk to you outright about sex? If not, what was the underlying message?
4. Did you make an active decision to become sexually active, or did it happen spontaneously? Has “safe sex” become an important consideration?
5. What are your feelings about sex between elderly individuals?
6. Describe your tolerance of homosexuality as a variation in sexual orientation.
7. Describe your tolerance of a homosexual man as your fifth grade son’s teacher.
8. You discover your 10-year-old sister and her two playmates playing “doctor” in the garage. What is your response?
In your opinion:
9. Should a married woman, who has a satisfactory sexual relationship with her husband, masturbate with a vibrator?
10. Do most parents give their daughters as much sexual freedom as they do their sons? Should they?
11. Do parents who give contraceptives to their adolescents present a message that having sex is okay?
12. Are individuals who have sex change operations freaks?
13. Does pornography lead to sexual crimes?
14. Are oral and anal sex deviant behaviors?
15. Do you ever have the right to refuse treatment to an AIDS client?

Learning Activities: Chapter 19

Check the eating disorder to which the symptoms in the left-hand column apply. Some may apply to more than one disorder. The first is completed as an example.

Symptoms	Anorexia Nervosa	Bulimia Nervosa	Obesity
1. Depression	X	X	
2. Amenorrhea			
3. Risk of diabetes mellitus			
4. Erosion of tooth enamel			
5. Preoccupation with food			
6. Self-induced vomiting			
7. Fixed in oral stage of development			
8. Is markedly underweight			
9. Weight is close to normal			
10. Is markedly overweight			
11. Abuse of substances is not uncommon			
12. May be related to hypothyroidism			
13. May be related to issues of control			
14. Genetics may play a role in the cause			
15. Takes in enormous amounts of food without gaining weight			

Match the personality disorder listed on the left that is most commonly associated with the behaviors described on the right.

- | | |
|--|--|
| _____ 1. Paranoid personality disorder | a. Shows no remorse for exploitation and manipulation of others. |
| _____ 2. Schizoid personality disorder | b. Accepts a job he does not want to do, then does a poor job and delays past the deadline. |
| _____ 3. Schizotypal personality disorder | c. Believes she is entitled to special privileges others do not deserve. |
| _____ 4. Antisocial personality disorder | d. They are suspicious of all others with whom they come in contact. |
| _____ 5. Borderline personality disorder | e. Swallows a bottle of pills after therapist leaves on vacation. |
| _____ 6. Histrionic personality disorder | f. Believes he has a “sixth sense,” and knows what others are thinking. |
| _____ 7. Narcissistic personality disorder | g. Allows others to make all her important decisions for her. |
| _____ 8. Avoidant personality disorder | h. Refuses to enter into a relationship due to fear of rejection |
| _____ 9. Dependent personality disorder | i. Demonstrates highly emotional and overly dramatic behaviors |
| _____ 10. Obsessive-compulsiv personality disorder | j. Has a lifelong pattern of social withdrawal |
| _____ 11. Passive-aggressive personality disorder | k. Believes everyone must follow the rules and that the rules can be “bent” for no one...ever. |

DISORDERS OF INFANCY, CHILDHOOD, OR ADOLESCENCE

Match the disorders listed on the left to the behaviors associated with each on the right.

- | | |
|---|---|
| _____ 1. Mild Mental Retardation | a. No capacity for independent functioning. IQ below 20. |
| _____ 2. Autistic Disorder | b. Violates the rights of others and societal norms and rules. Physical aggression and inability to control anger. |
| _____ 3. Moderate Mental Retardation | c. Negativistic and defiant behavior, including obstinacy, procrastination, disobedience, resistance to change and authority. |
| _____ 4. Conduct Disorder | d. May be trained in elementary hygiene skills. Requires complete supervision. IQ 20 to 34. |
| _____ 5. Severe Mental Retardation | e. Withdrawal of the child into the self and into a fantasy world of his or her own creation. |
| _____ 6. Separation Anxiety Disorder | f. Developmentally inappropriate degrees of inattention, impulsiveness, and hyperactivity. |
| _____ 7. Attention-Deficit/Hyperactivity Disorder | g. Screams and throws temper tantrums at anticipated separation from mother. Fear of harm to self or mother. |
| _____ 8. Tourette's Disorder | h. Capable of developing social skills and independent living, with assistance. IQ 50 to 70. |
| _____ 9. Oppositional Defiant Disorder | i. Presence of multiple motor tics and one or more vocal tics. |
| _____ 10. Profound Mental Retardation | j. Capable of academic skill to second grade level. IQ 35 to 49. |

BEHAVIORS OF ABUSE OR NEGLECT

Match the terms on the right to the situations they describe on the left.

- | | |
|---|--|
| <p>_____ 1. John likes to brag of his sexual conquests to his friends. When Alice rejected his sexual advances on their first date, he became angry and forced intercourse with her.</p> <p>_____ 2. Alice tells no one about the encounter with John. She suppresses her anxiety and tries to pretend it didn't happen.</p> <p>_____ 3. Harry is 28-years old. He is very flattered when 15-year-old Lisa pays attention to him at a party. After the party, he takes her to his home, where she agrees to have sex with him.</p> <p>_____ 4. At 9 P.M., Jack comes home intoxicated from the bar where he had gone after work with his friends. When he finds his dinner cold, he slaps his wife across the face, knocks her down, and kicks her.</p> <p>_____ 5. Jack pulls his wife to their bed, and against her protests, forces intercourse with her, yelling, "You can't say no to me! You're my wife!"</p> <p>_____ 6. Janie is 6-years old. Her father left home a year ago and has never returned. Her mother frequently says to Janie, "See what you did! If you had been a better little girl, Daddy wouldn't have left us!"</p> <p>_____ 7. Janie attempts to establish a relationship with her mother, but whenever Janie approaches her mother for interaction, her mother yells, "Get away from me! I don't want to have anything to do with bad little girls!"</p> <p>_____ 8. Janie has open sores on her buttocks. She tells the babysitter, "My mommy made them with her cigarette."</p> <p>_____ 9. Janie comes to school in the snow without a coat. When asked where her coat is, Janie replies, "I don't have one."</p> <p>_____ 10. Scarlet is 15-years old. She is sent to the school nurse by her homeroom teacher. She is obviously having symptoms of a panic attack. Upon becoming calmer, Scarlet explains to the nurse that Frank just asked her for her first date. With much encouragement, the nurse learns that Scarlet's father has been coming into her bed at night for 5 years now. At first he just touched and fondled her, but last year he began having intercourse with her.</p> <p>_____ 11. After being raped by a man in the deserted laundry room of her apartment building, Carol is taken to the hospital by her roommate. Carol is sobbing and yelling, "He had no right to do that to me!" She is tense, and is fearful of any man who comes near her.</p> <p>_____ 12. Carol's physical wounds heal, but in subsequent weeks, she becomes increasingly fearful. He is overcome with despair and talks of taking her life. She drinks a great deal of alcohol to help her get through each day.</p> | <p>a. Physical injury</p> <p>b. Compounded rape reaction</p> <p>c. Intimate partner abuse</p> <p>d. Date rape</p> <p>e. Expressed response pattern</p> <p>f. Incest</p> <p>g. Marital rape</p> <p>h. Statutory rape</p> <p>i. Silent rape reaction</p> <p>j. Emotional injury</p> <p>k. Emotional neglect</p> <p>l. Physical neglect</p> |
|---|--|

CASE STUDY

Read the following case study and answer the questions that follow.

Seventy-seven year old Angie had been a widow for 20 years. She was fiercely independent and had run her small farm with minimal assistance since her husband died. In the last few years, her children had noticed that Angie had become increasingly forgetful. First, she began forgetting the birthdays of her children and grandchildren, which was highly unlike her. Recently, she forgot that she was supposed to visit her son and his family and failed to show up at the designated time. Last week when her daughter visited, she found a teakettle on the stove that had burned dry when Angie forgot she had started it. Yesterday, her daughter received a call from Angie's nearest neighbor who found Angie wandering around in his field unprotected from the cold. At her children's request, the family physician admits Angie to the hospital, where she is placed on the geropsychiatric unit.

1. Identify relevant assessment data from the information given.
2. What are the two priority nursing diagnoses for Angie?
3. Describe some nursing interventions for assisting Angie with the two nursing diagnoses identified.
4. Describe relevant outcome criteria for evaluating nursing care for Angie.

CONCEPTS AND TERMS ASSOCIATED WITH COMMUNITY MENTAL HEALTH NURSING

Fill in the blanks of the statements below with the following terms and concepts associated with community mental health nursing.

deinstitutionalization

case management

DRGs

mobile outreach units

primary prevention

day treatment programs

secondary prevention

community

tertiary prevention

homelessness

1. In _____, volunteers and paid professionals form teams to drive or walk around and seek out homeless persons who are in need of assistance.
2. Nurse Jones visits Sam, who has chronic schizophrenia, in his home to give him his monthly injection of antipsychotic medication. This is an example of _____.
3. The release of thousands of chronically mentally ill individuals from state hospitals into the community setting is called _____.
4. The concept defined in Question 3 has been identified as a contributing factor to _____ among the mentally ill.
5. The term _____ refers to a group of people living in proximity and having some dependency on each other.
6. The American Nurses Association has endorsed _____ as an effective method of providing care for clients in the community who require long-term assistance.
7. _____ are designed to ease the transition from hospitalization to community living.
8. _____, directed at control of Medicare costs, have reduced the length of hospital stays for psychiatric clients and increased the importance of aftercare.
9. Teaching a class in prepared childbirth education is an example of _____.
10. Caring for a widow who has been hospitalized for major depression is an example of _____.

I. NORMAL GRIEF VERSUS CLINICAL DEPRESSION

Identify whether the following behaviors are attributable to normal grieving or clinical depression.

a. Normal grieving

b. Clinical depression

- ___ 1. The individual openly expresses anger.
- ___ 2. Anhedonia is prevalent.
- ___ 3. A persistent state of dysphoria exists.
- ___ 4. Feels more depressed on some days than others.
- ___ 5. Self-esteem seems unaffected.
- ___ 6. Expresses chronic physical complaints.
- ___ 7. Feelings of depression are related to a specific loss.
- ___ 8. Holds anger inside.
- ___ 9. Generalized feelings of guilt.
- ___ 10. Able to experience some moments of pleasure.

II. CASE STUDY

Sandy and Bill, both aged 65, had been married for 46 years. They had been high school sweethearts and were married shortly after graduation. They had two daughters who were married and lived out of state.

Bill had been a cigarette smoker for almost 50 years. Over the years, he had increased his usage up to three packages a day. He had suffered a heart attack at age 49, at which time he was 50 pounds overweight. At that time, he was also diagnosed with type II diabetes mellitus and prescribed a daily antidiabetic agent. His doctor told him at that time to quit smoking and lose weight. Bill dieted and lost about 25 pounds. He tried to quit smoking, but was extremely nervous and irritable, to the point of having difficulty sleeping at night. He experienced bouts of depression.

Bill soon began smoking again. Sandy tried to talk him into abstaining, but he would become angry and tell her to quit “nagging.” He refused to watch his diet, and although he continued to take his medication, he ate food that he was told to avoid and soon had regained the weight he had previously lost.

Continued on the following page

Over the years, the diabetes, heavy smoking, and state of obesity took their toll on Bill's health, and at age 65, Bill suffered a massive, fatal myocardial infarction. Sandy was devastated. With the help of her daughters, she made it through the initial days and weeks following Bill's death. She refused their offer to live with one of them. But, she is having difficulty getting past her anger. When she goes to her physician for her routine physical examination, she says to the nurse, "I told him to stop smoking, but he wouldn't listen to me! He accused me of being a "nag." But he would still be here if he had just listened to me! It just makes me so angry when I think about it!" The nurse refers Sandy to a clinical nurse specialist in grief counseling. Answer the following questions related to Sandy's case:

1. Is Sandy's anger appropriate?
2. What would be the nursing diagnosis for Sandy?
3. Describe some nursing interventions to assist Sandy at this time.

- | | | |
|-----------------------------------|-----------------|-----------------|
| alprazolam | flurazepam | pemoline |
| amitriptyline | fluvoxamine | perphenazine |
| benztropine | gabapentin | phentermine |
| bupropion | haloperidol | quetiapine |
| bupirone | aripiprazole | risperidone |
| carbamazepine | atomoxetine | sertraline |
| chlordiazepoxide | escitalopram | sibutramine |
| chlorpromazine | imipramine | temazepam |
| citalopram | lamotrigine | thioridazine |
| clomipramine | lithium | thiothixene |
| clonazepam | lorazepam | topiramate |
| clozapine | methylphenidate | trazodone |
| dextroamphetamine | mirtazapine | triazolam |
| dextroamphetamine/
amphetamine | molindone | trihexyphenidyl |
| diazepam | mao inhibitors | valproates |
| doxepin | nefazodone | venlafaxine |
| fluoxetine | olanzapine | ziprasidone |
| fluphenazine | oxazepam | zolpidem |
| | paroxetine | |

alprazolam

(al-pray-zoe-lam)

Apo-Alpraz, Novo-Alprazol, Nu-Alpraz, Xanax, Xanax XR

CLASSIFICATION(S):

Therapeutic: *antianxiety agents*

Pharmacologic: *benzodiazepines*

Schedule IV

Pregnancy Category D

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INDICATIONS

- Treatment of anxiety.
- Management of panic attacks.
- Unlabelled Uses:
 - Management of symptoms of premenstrual syndrome (PMS).

ACTION

- Acts at many levels in the CNS to produce anxiolytic effect
- May produce CNS depression
- Effects may be mediated by GABA, an inhibitory neurotransmitter.
- **Therapeutic Effects:**
 - Relief of anxiety.

PHARMACOKINETICS

Absorption: Well absorbed (90%) from the GI tract; absorption is slower with extended-release tablets.

Distribution: Widely distributed, crosses blood-brain barrier. Probably crosses the placenta and enters breast milk. Accumulation is minimal.

Metabolism and Excretion: Metabolized by the liver (CYP3A4 enzyme system) to an active compound that is subsequently rapidly metabolized.

Half-life: 12–15 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Cross-sensitivity with other benzodiazepines may exist
- Patients with pre-existing CNS depression
- Severe uncontrolled pain
- Narrow-angle glaucoma
- Pregnancy and lactation
- Concurrent itraconazole or ketoconazole.

Use Cautiously in:

- Hepatic dysfunction (↓ dose required)
- Concurrent use of nefazodone, fluvoxamine, cimetidine (↓ dose recommended)

Continued on the following page

- Concurrent use with fluoxetine, hormonal contraceptives, propoxyphene, diltiazem, isoniazid, erythromycin, clarithromycin, grapefruit juice (↓ dose may be necessary)
- History of suicide attempt or drug dependence
- Elderly or debilitated patients (↓ dose required).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, drowsiness, lethargy, confusion, hangover, headache, mental depression, paradoxical excitation.

EENT: blurred vision.

GI: constipation, diarrhea, nausea, vomiting.

Derm: rashes.

Misc: physical dependence, psychological dependence, tolerance.

INTERACTIONS

Drug–Drug:

- Alcohol, antidepressants, other benzodiazepines, antihistamines, and opioid analgesics—concurrent use results in ↑ CNS depression
- Hormonal contraceptives, disulfiram, fluoxetine, isoniazid, metoprolol, propoxyphene, propranolol, valproic acid, CYP3A4 inhibitors (erythromycin, ketoconazole, itraconazole, fluvoxamine, cimetidine, nefazodone) ↓ metabolism of alprazolam, ↑ blood levels and ↑ its actions (dosage adjustments may be necessary)
- May ↓ efficacy of levodopa
- CYP3A4 inducers (rifampin, carbamazepine, or barbiturates) ↑ metabolism and ↓ effects of alprazolam
- Sedative effects may be ↓ by theophylline
- Cigarette smoking ↓ blood levels and effects.

Drug–Natural:

- Kava, valerian, chamomile, or hops can ↑ CNS depression.

Drug–Food:

- Concurrent ingestion of grapefruit juice ↑ blood levels.

ROUTE AND DOSAGE

Anxiety

- PO (Adults): 0.25–0.5 mg 2–3 times daily (not >4 mg/day; begin with 0.25 mg 2–3 times daily in geriatric/debilitated patients).

Panic Attacks

- PO (Adults): 0.5 mg 3 times daily; may be increased as needed (not >10 mg/day). *Extended–release tablets (Xanax XR)*—0.5–1 mg once daily in the morning, may be increased every 3–4 days by not more than 1 mg/day; up to 10 mg/day (usual range 3–6 mg/day).

AVAILABILITY

- *Tablets:* 0.25 mg^{Rx}, 0.5 mg^{Rx}, 1 mg^{Rx}, 2 mg^{Rx}
- **Cost:** 0.25 mg \$98.21/100, 0.5 mg \$122.35/100, 1 mg \$163.25/100, 2 mg \$277.56/100.
- *Extended-release tablets:* 0.5 mg^{Rx}, 1 mg^{Rx}, 2 mg^{Rx}, 3 mg^{Rx}

TIME/ACTION PROFILE (sedation)

	ONSET	PEAK	DURATION
PO	1–2 hr	1–2 hr	up to 24 hr

Continued on the following page

NURSING IMPLICATIONS

ASSESSMENT

- Assess degree and manifestations of anxiety and mental status prior to and periodically during therapy.
- Assess patient for drowsiness, light-headedness, and dizziness. These symptoms usually disappear as therapy progresses. Dose should be reduced if these symptoms persist.
- Prolonged high-dose therapy may lead to psychological or physical dependence. Risk is greater in patients taking >4 mg/day. Restrict the amount of drug available to patient.
- **Lab Test Considerations:** Monitor CBC and liver and renal function periodically during long-term therapy. May cause ↓ hematocrit and neutropenia.

POTENTIAL NURSING DIAGNOSES

- Anxiety (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse Xanax (alprazolam) with Zantac (ranitidine).
 - If early morning anxiety or anxiety between doses occurs, the same total daily dose should be divided into more frequent intervals.
- **PO:** May be administered with food if GI upset occurs.
 - Tablets may be crushed and taken with food or fluids if patient has difficulty swallowing. Do not crush, break, or chew extended-release tablets.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed; do not skip or double up on missed doses. If a dose is missed, take within 1 hr; otherwise, skip the dose and return to regular schedule. If medication is less effective after a few weeks, check with health care professional; do not increase dose. Abrupt withdrawal may cause sweating, vomiting, muscle cramps, tremors, and seizures.
- May cause drowsiness or dizziness. Caution patient to avoid driving and other activities requiring alertness until response to the medication is known.
- Advise patient to avoid the use of alcohol or other CNS depressants concurrently with alprazolam. Instruct patient to consult health care professional before taking OTC medications or natural/herbal products concurrently with this medication.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decreased sense of anxiety
 - Increased ability to cope
- Decreased frequency and severity of panic attacks. Treatment with this medication should not exceed 4 mo without re-evaluation of the patient's need for the drug
- Decreased symptoms of premenstrual syndrome.

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amitriptyline

(a-mee-**trip**-ti-leen)

Apo-Amitriptyline, Elavil, Endep, Levate, Novotriptyn

CLASSIFICATION(S):

Therapeutic: antidepressants

Pharmacologic: tricyclic antidepressants

Pregnancy Category D

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INDICATIONS

- Treatment of depression, often in conjunction with psychotherapy.
- **Unlabelled Uses:**
 - Chronic pain syndromes.

ACTION

- Potentiates the effect of serotonin and norepinephrine in the CNS
- Has significant anticholinergic properties.
- **Therapeutic Effects:**
 - Antidepressant action.

PHARMACOKINETICS

Absorption: Well absorbed from the GI tract.

Distribution: Widely distributed.

Protein Binding: 95% bound to plasma proteins.

Metabolism and Excretion: Extensively metabolized by the liver. Some metabolites have antidepressant activity. Undergoes enterohepatic recirculation and secretion into gastric juices. Probably crosses the placenta and enters breast milk.

Half-life: 10–50 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Narrow-angle glaucoma
- Pregnancy and lactation.

Use Cautiously in:

- Geriatric patients (increased risk of adverse reactions)
- Patients with pre-existing cardiovascular disease
- Prostatic hypertrophy (increased risk of urinary retention)
- History of seizures (threshold may be lowered).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: lethargy, sedation.

EENT: blurred vision, dry eyes, dry mouth.

CV: **ARRHYTHMIAS**, hypotension, ECG changes.

GI: constipation, hepatitis, paralytic ileus.

GU: urinary retention.

Derm: photosensitivity.

Continued on the following page

Endo: changes in blood glucose, gynecomastia.

Hemat: blood dyscrasias.

Misc: increased appetite, weight gain.

INTERACTIONS

Drug–Drug:

- Amitriptyline is metabolized in the liver by the cytochrome P450 2D6 enzyme, and its action may be affected by drugs that compete for metabolism by this enzyme, including other antidepressants, phenothiazines, carbamazepine, class 1C antiarrhythmics including propafenone, and flecainide; when these drugs are used concurrently with amitriptyline, dosage reduction of one or the other or both may be necessary. Concurrent use of other drugs that inhibit the activity of the enzyme, including cimetidine, quinidine, amiodarone, and ritonavir, may result in increased effects of amitriptyline.
- May cause hypotension, tachycardia, and potentially fatal reactions when used with MAO inhibitors (avoid concurrent use—discontinue 2 wk before starting amitriptyline)
- Concurrent use with SSRI antidepressants may result in increased toxicity and should be avoided (fluoxetine should be stopped 5 wk before starting amitriptyline)
- May prevent the therapeutic response to guanethidine
- Concurrent use with clonidine may result in hypertensive crisis and should be avoided
- Concurrent use with levodopa may result in delayed or decreased absorption of levodopa or hypertension
- Blood levels and effects may be decreased by rifamycins (rifampin, rifapentine, and rifabutin)
- Concurrent use with moxifloxacin or sparfloxacin increases the risk of adverse cardiovascular reactions
- Additive CNS depression with other CNS depressants

including alcohol, antihistamines, clonidine, opioids, and sedative/hypnotics

- Barbiturates may alter blood levels and effects
- Adrenergic and anticholinergic side effects may be additive with other agents having anticholinergic properties
- Phenothiazines or oral contraceptives increase levels and may cause toxicity
- Nicotine may increase metabolism and alter effects.

Drug–Natural:

- St. John's wort may decrease serum concentrations and efficacy
- Concomitant use of kava, valerian, skullcap, chamomile, or hops can increase CNS depression
- Increased anticholinergic effects with angel's trumpet, jimson weed, and scopolia.

ROUTE AND DOSAGE

- PO (Adults): 75 mg/day in divided doses; may be increased up to 150 mg/day or 50–100 mg at bedtime, may increase by 25–50 mg up to 150 mg (in hospitalized patients, may initiate with 100 mg/day, increasing total daily dose up to 300 mg).
- PO (Geriatric Patients and Adolescents): 10 mg tid and 20 mg at bedtime or 25 mg at bedtime initially, slowly increased to 100 mg/day as a single bedtime dose or divided doses.
- IM (Adults): 20–30 mg 4 times daily.

AVAILABILITY

- **Tablets:** 10 mg^{Rx}, 25 mg^{Rx}, 50 mg^{Rx}, 75 mg^{Rx}, 100 mg^{Rx}, 150 mg^{Rx}
- **Cost:** 10 mg \$17.90/100, 25 mg \$35.75/100, 75 mg \$85.25/100, 100 mg \$108.00/100, 150 mg \$108.86/100
- **Syrup:** 10 mg/5 ml^{Rx}
- **Injection:** 10 mg/ml^{Rx}.

Continued on the following page

TIME/ACTION PROFILE (antidepressant effect)

	ONSET	PEAK	DURATION
PO	2–3 wk (up to 30 days)	2–6 wk	days–wks
IM	2–3 wk	2–6 wk	days–wks

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Monitor blood pressure and pulse before and during initial therapy. Notify physician or other health care professional of decreases in blood pressure (10–20 mmHg) or sudden increase in pulse rate. **Patients taking high doses or with a history of cardiovascular disease should have ECG monitored before and periodically throughout therapy.**
- Geriatric patients started on amitriptyline may be at an increased risk for falls; start with low dose and monitor closely.
- **Depression:** Monitor mental status and affect. Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- **Pain:** Assess intensity, quality, and location of pain periodically during therapy. May require several weeks for effects to be seen.
- **Lab Test Considerations:** Assess leukocyte and differential blood counts, liver function, and serum glucose before and periodically during therapy. May cause an elevated serum bilirubin and alkaline phosphatase. May cause bone marrow depression. Serum glucose may be increased or decreased.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** **Do not confuse Elavil (amitriptyline) with Oruvail (ketoprofen).**
 - Dose increases should be made at bedtime because of sedation. Dose titration is a slow process; may take weeks to months. May give entire dose at bedtime. Sedative effect may be apparent before antidepressant effect is noted.
- **PO:** Administer medication with or immediately after a meal to minimize gastric upset. Tablet may be crushed and given with food or fluids.
- **IM:** For short-term IM administration only. Do not administer IV.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed. If a dose is missed, take as soon as possible unless almost time for next dose; if regimen is a single dose at bedtime, do not take in the morning because of side effects. Advise patient that drug effects may not be noticed for at least 2 wk. Abrupt discontinuation may cause nausea, vomiting, diarrhea, headache, trouble sleeping with vivid dreams, and irritability.
- May cause drowsiness and blurred vision. Caution patient to avoid driving and other activities requiring alertness until response to drug is known.
- Orthostatic hypotension, sedation, and confusion are common during early therapy, especially in geriatric patients. Protect patient from falls and advise patient to make position changes slowly.
- Advise patient to avoid alcohol or other CNS depressant drugs during and for 3–7 days after therapy has been discontinued.

Continued on the following page

- Instruct patient to notify health care professional if urinary retention occurs or if dry mouth or constipation persists. Sugarless candy or gum may diminish dry mouth, and an increase in fluid intake or bulk may prevent constipation. If symptoms persist, dose reduction or discontinuation may be necessary. Consult health care professional if dry mouth persists for more than 2 wk.
- Caution patient to use sunscreen and protective clothing to prevent photosensitivity reactions.
- Inform patient of need to monitor dietary intake. Increase in appetite may lead to undesired weight gain.
- Advise patient to notify health care professional if pregnancy is planned or suspected or if breastfeeding.
- Advise patient to notify health care professional of medication regimen before treatment or surgery. Medication should be discontinued as long as possible before surgery.

- Therapy for depression is usually prolonged and should be continued for at least 3 months to prevent relapse. Emphasize the importance of follow-up exams to monitor effectiveness and side effects.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Increased sense of well-being
 - Renewed interest in surroundings
 - Increased appetite
 - Improved energy level
 - Improved sleep
- Decrease in chronic pain symptoms
- Full therapeutic effects may be seen 2–6 wk after initiating therapy.

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benztropine

(benz-troe-peen)

Apo-Benztropine, Cogentin

CLASSIFICATION(S):

Therapeutic: antiparkinson agents

Pharmacologic: anticholinergics

Pregnancy Category C

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INDICATIONS

- Adjunctive treatment of all forms of Parkinson's disease, including drug-induced extrapyramidal effects and acute dystonic reactions.

ACTION

- Blocks cholinergic activity in the CNS, which is partially responsible for the symptoms of Parkinson's disease
- Restores the natural balance of neurotransmitters in the CNS.
- **Therapeutic Effects:**
 - Reduction of rigidity and tremors.

PHARMACOKINETICS

Absorption: Well absorbed following PO and IM administration.

Distribution: Unknown.

Metabolism and Excretion: Unknown.

Half-life: Unknown.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Children <3 yr

- Narrow-angle glaucoma
- Tardive dyskinesia.

Use Cautiously in:

- Geriatric patients (increased risk of adverse reactions)
- Prostatic hypertension
- Seizure disorders
- Cardiac arrhythmias
- Pregnancy and lactation (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: confusion, depression, dizziness, hallucinations, headache, sedation, weakness.

EENT: blurred vision, dry eyes, mydriasis.

CV: arrhythmias, hypotension, palpitations, tachycardia.

GI: constipation, dry mouth, ileus, nausea.

GU: hesitancy, urinary retention.

Misc: decreased sweating.

Continued on the following page

INTERACTIONS

Drug–Drug:

- Additive anticholinergic effects with **drugs sharing anticholinergic properties**, such as **antihistamines, phenothiazines, quinidine, disopyramide, and tricyclic antidepressants**
- Counteracts the cholinergic effects of **bethanechol**
- Antacids and **antidiarrheals** may decrease absorption.

Drug–Natural:

- Increased anticholinergic effect with **angel’s trumpet, jimson weed, and scopolia**.

ROUTE AND DOSAGE

Parkinsonism

- PO (Adults): 1–2 mg/day in 1–2 divided doses (range 0.5–6 mg/day).

Acute Dystonic Reactions

- IM, IV (Adults): 1–2 mg, then 1–2 mg PO twice daily.

Drug-Induced Extrapyrimal Reactions

- PO, IM, IV (Adults): 1–4 mg given once or twice daily (1–2 mg 2–3 times daily may also be used PO).

AVAILABILITY

- **Tablets:** 0.5 mg^{Rx}, 1 mg^{Rx}, 2 mg^{Rx}
- **Cost:** 0.5 mg \$3.92/30, 1 mg \$5.24/30, 2 mg \$5.36/30
- **Injection:** 1 mg/ml^{Rx}.

TIME/ACTION PROFILE (antidyskinetic activity)

	ONSET	PEAK	DURATION
PO	1–2 hr	several days	24 hr
IM, IV	within min	unknown	24 hr

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Assess parkinsonian and extrapyramidal symptoms (restlessness or desire to keep moving, rigidity, tremors, pill rolling, mask-like face, shuffling gait, muscle spasms, twisting motions, difficulty speaking or swallowing, loss of balance control) before and throughout therapy.
 - Assess bowel function daily. Monitor for constipation, abdominal pain, distention, or absence of bowel sounds.
 - Monitor intake and output ratios and assess patient for urinary retention (dysuria, distended abdomen, infrequent voiding of small amounts, overflow incontinence).
- Patients with mental illness are at risk of developing exaggerated symptoms of their disorder during early therapy with benztropine. Withhold drug and notify physician or other health care professional if significant behavioral changes occur.
- IM/IV: Monitor pulse and blood pressure closely and maintain bedrest for 1 hr after administration. Advise patients to change positions slowly to minimize orthostatic hypotension.

POTENTIAL NURSING DIAGNOSES

- Mobility, impaired physical (Indications).
- Injury, risk for (Indications).

IMPLEMENTATION

- PO: Administer with food or immediately after meals to minimize gastric irritation. May be crushed and administered with food if patient has difficulty swallowing.
- IM: Parenteral route is used only for dystonic reactions.
- Direct IV: IV route is rarely used because onset is same as with IM route.
- **Rate:** Administer at a rate of 1 mg over 1 min.
- **Syringe Compatibility:** ♦ metoclopramide.
- **Y-Site Compatibility:** ♦ fluconazole ♦ tacrolimus.

Continued on the following page

PATIENT/FAMILY TEACHING

- Encourage patient to take benztropine as directed. Missed doses should be taken as soon as possible, up to 2 hr before the next dose. Taper gradually when discontinuing or a withdrawal reaction may occur (anxiety, tachycardia, insomnia, return of parkinsonian or extrapyramidal symptoms).
- May cause drowsiness or dizziness. Advise patient to avoid driving or other activities that require alertness until response to the drug is known.
- Instruct patient that frequent rinsing of mouth, good oral hygiene, and sugarless gum or candy may decrease dry mouth. Patient should notify health care professional if dryness persists (saliva substitutes may be used). Also, notify the dentist if dryness interferes with use of dentures.
- Caution patient to change positions slowly to minimize orthostatic hypotension.
- Instruct patient to notify health care professional if difficulty with urination, constipation, abdominal discomfort, rapid or pounding heartbeat, confusion, eye pain, or rash occurs.

- Advise patient to confer with health care professional before taking OTC medications, especially cold remedies, or drinking alcoholic beverages.
- Caution patient that this medication decreases perspiration. Overheating may occur during hot weather. Patient should notify health care professional if unable to remain indoors in an air-conditioned environment during hot weather.
- Advise patient to avoid taking antacids or antidiarrheals within 1–2 hr of this medication.
- Emphasize the importance of routine follow-up exams.

EVALUATION**Effectiveness of therapy can be demonstrated by:**

- Decrease in tremors and rigidity and an improvement in gait and balance. Therapeutic effects are usually seen 2–3 days after the initiation of therapy.

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bupropion

(byoo-proe-pee-on)

Wellbutrin, Wellbutrin SR, Wellbutrin XL, Zyban

CLASSIFICATION(S):

Therapeutic: antidepressants, smoking deterrents

Pregnancy Category B

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INDICATIONS

- Treatment of depression (with psychotherapy)
- Smoking cessation (Zyban only).
- Unlabelled Uses:
 - Treatment of ADHD in adults (SR only)
 - To increase sexual desire in women

ACTION

- Decreases neuronal reuptake of dopamine in the CNS
- Diminished neuronal uptake of serotonin and norepinephrine (less than tricyclic antidepressants).
- **Therapeutic Effects:**
 - Diminished depression
 - Decreased craving for cigarettes.

PHARMACOKINETICS

Absorption: Although well absorbed, rapidly and extensively metabolized by the liver.

Distribution: Unknown.

Metabolism and Excretion: Extensively metabolized by the liver. Some conversion to active metabolites.

Half-life: 14 hr (active metabolites may have longer half-lives).

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- History of seizures, bulimia, and anorexia nervosa
- Concurrent MAO inhibitor or ritonavir therapy.

Use Cautiously in:

- History of cranial trauma
- Renal or hepatic impairment (dosage reduction recommended)
- Recent history of MI
- Geriatric patients (increased risk of drug accumulation; increased sensitivity to effects)
- Unstable cardiovascular status
- Pregnancy, lactation, or children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

Continued on the following page

CNS: **SEIZURES**, agitation, headache, insomnia, mania, psychoses.

GI: dry mouth, nausea, vomiting, change in appetite, weight gain, weight loss.

Derm: photosensitivity.

Endo: hyperglycemia, hypoglycemia, syndrome of inappropriate ADH secretion.

Neuro: tremor.

INTERACTIONS

Drug-Drug:

- ↑ risk of adverse reactions when used with **amantadine**, **levodopa** or **MAO inhibitors** (concurrent use of MAO inhibitors is contraindicated)
- ↑ risk of seizures with **phenothiazines**, **antidepressants**, **theophylline**, **corticosteroids**, **OTC stimulants/anorectics**, or cessation of alcohol or **benzodiazepines** (avoid or minimize alcohol use)
- Blood levels ↑ by **ritonavir** (avoid concurrent use)
- **Carbamazepine** may decrease ↓ blood levels and effectiveness
- Concurrent use with **nicotine** replacement may cause hypertension
- ↑ risk of bleeding with **warfarin**
- Bupropion and one of its metabolites inhibit the CYP 2D6 enzyme system and may ↑ levels and risk of toxicity from **antidepressants** (SSRIs and tricyclic), some **beta blockers**, **antiarrhythmics**, and **antipsychotics**.

ROUTE AND DOSAGE

Depression

- PO (Adults): *Immediate-release*—100 mg twice daily initially; after 3 days may increase to 100 mg 3 times daily; after at least 4 wk of therapy, may increase up to 450 mg/day in divided doses (not to exceed 150 mg/dose; wait at least 6 hr

between doses at the 300 mg/day dose or at least 4 hr between doses at the 450 mg/day dose). *Sustained-release*—150 mg once daily in the morning; after 3 days, may increase to 150 mg twice daily with at least 8 hr between doses; after at least 4 wk of therapy, may increase to a maximum daily dose of 400 mg given as 200 mg twice daily. *Extended-release* 150 mg once daily in the morning, may be increased after 4 days to 300 mg once daily; some patients may require up to 450 mg/day as a single daily dose.

Smoking cessation

- PO (Adults): *Zyban*—150 mg once daily for 3 days, then 150 mg twice daily for 7–12 wk (doses should be at least 8 hr apart).

AVAILABILITY

- *Tablets*: 75 mg^{Rx}, 100 mg^{Rx}
- *Cost*: 75 mg \$84.10/100, 100 mg \$112.19/100
- *Sustained-release tablets*: 100 mg^{Rx}, 150 mg^{Rx}, 200 mg^{Rx}
- *Cost*: 100 mg \$94.27/60, 150 mg \$101.94/60.
- *Extended-release tablets*: 150 mg^{Rx}, 300 mg^{Rx}
- *Cost*: 150 mg \$91.63/30, 300 mg \$121.03/30.

TIME/ACTION PROFILE (antidepressant effect)

	ONSET	PEAK	DURATION
PO	1–3 wk	unknown	unknown

NURSING IMPLICATIONS

ASSESSMENT

- Monitor mood changes. Inform physician or other health care professional if patient demonstrates significant increase in anxiety, nervousness, or insomnia.

Continued on the following page

Psychotropic Drugs: *bupropion* (Cont'd)

- Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- **Lab Test Considerations:** Monitor hepatic and renal function closely in patients with kidney or liver impairment to prevent elevated serum and tissue bupropion concentrations.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).

IMPLEMENTATION

- **General:** Do not confuse bupropion with buspirone. Do not confuse Zyban (bupropion) with Zagam (Sparfloxacin).
 - Administer doses in equally spaced time increments throughout day to minimize the risk of seizures.
 - May be initially administered concurrently with sedatives to minimize agitation. This is not usually required after the 1st wk of therapy.
 - Insomnia may be decreased by avoiding bedtime doses. May require treatment during first week of therapy.
 - May be administered with food to lessen GI irritation.
 - Nicotine patches, gum, inhalers, and spray may be used concurrently with bupropion.
- **PO:** Sustained-release (SR or XL) tablets should be swallowed whole; do not break, crush, or chew.

PATIENT/FAMILY TEACHING

- Instruct patient to take bupropion exactly as directed. If a dose taken for depression is missed, take as soon as possible and space day's remaining doses evenly at not less than 4-hr intervals. Missed doses for smoking cessation should be omitted. Do not double doses or take more than prescribed. May require 4 wk or longer for full effects. Do not discontinue without consulting health care professional. May require gradual reduction before discontinuation.

- Bupropion may impair judgment or motor and cognitive skills. Caution patient to avoid driving and other activities requiring alertness until response to medication is known.
- Advise patient to avoid alcohol during therapy and to consult with health care professional before taking other medications with bupropion.
- Inform patient that frequent mouth rinses, good oral hygiene, and sugarless gum or candy may minimize dry mouth. If dry mouth persists for more than 2 wk, consult health care professional regarding use of saliva substitute.
- Advise patient to notify health care professional if rash or other troublesome side effects occur.
- Inform patient that unused shell of XL tablets may appear in stool; this is normal.
- Advise patient to use sunscreen and protective clothing to prevent photosensitivity reactions.
- Instruct female patients to inform health care professional if pregnancy is planned or suspected.
- Advise patient to notify health care professional of medication regimen before treatment or surgery.
- Emphasize the importance of follow-up exams to monitor progress. Encourage patient participation in psychotherapy.
- **Smoking Cessation:** Smoking should be stopped during the 2nd week of therapy to allow for the onset of bupropion and to maximize the chances of quitting.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Increased sense of well-being
 - Renewed interest in surroundings. Acute episodes of depression may require several months of treatment
- Cessation of smoking.

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bupirone

(byoo-spye-rone)

BuSpar

CLASSIFICATION(S):

Therapeutic: *antianxiety agents*

Pregnancy Category B

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INDICATIONS

- Management of anxiety.

ACTION

- Binds to serotonin and dopamine receptors in the brain
- Increases norepinephrine metabolism in the brain.
- **Therapeutic Effects:**
 - Relief of anxiety.

PHARMACOKINETICS

Absorption: Rapidly absorbed.

Distribution: Unknown.

Protein Binding: 95% bound to plasma proteins

Metabolism and Excretion: Extensively metabolized by the liver (CYP 3A4 enzyme system); 20–40% excreted in feces.

Half-life: 2–3 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity.
- Severe hepatic or renal impairment.

- Concurrent use of MAO inhibitors
- Ingestion of large amounts of grapefruit juice.

Use Cautiously in:

- Patients receiving other antianxiety agents (other agents should be slowly withdrawn to prevent withdrawal or rebound phenomenon)
- Patients receiving other psychotropics.
- Pregnancy, lactation, and children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, drowsiness, excitement, fatigue, headache, insomnia, nervousness, weakness, personality changes.

EENT: blurred vision, nasal congestion, sore throat, tinnitus, altered taste or smell, conjunctivitis.

Resp: chest congestion, hyperventilation, shortness of breath.

CV: chest pain, palpitations, tachycardia, hypertension, hypotension, syncope.

Continued on the following page

GI: nausea, abdominal pain, constipation, diarrhea, dry mouth, vomiting.

GU: changes in libido, dysuria, urinary frequency, urinary hesitancy.

Derm: rashes, alopecia, blisters, dry skin, easy bruising, edema, flushing, pruritus.

Endo: irregular menses.

MS: myalgia.

Neuro: incoordination, numbness, paresthesia, tremor.

Misc: clamminess, sweating, fever.

INTERACTIONS

Drug–Drug:

- Use with MAO inhibitors may result in hypertension and is not recommended
- Erythromycin, nefazodone, ketoconazole, itraconazole, ritonavir, and other inhibitors of CYP 3A4 ↑ blood levels and effects of bupirone; dose reduction is recommended (decrease to 2.5 mg twice daily with erythromycin, decrease to 2.5 mg once daily with nefazodone)
- Rifampin, dexamethasone, phenytoin, phenobarbital, carbamazepine, and other inducers of CYP 3A4 ↓ blood levels and effects of bupirone; dose adjustment may be necessary
- Avoid concurrent use with alcohol.

Drug–Natural:

- Concomitant use of kava, valerian, or chamomile can ↑ CNS depression.

Drug–Food:

- Grapefruit juice ↑ serum levels and effect; ingestion of large amounts of grapefruit juice is not recommended.

ROUTE AND DOSAGE

- PO (Adults): 5 mg 3 times daily; increase by 5 mg/day q 2–3 days as needed (not to exceed 60 mg/day). Usual dose is 20–30 mg/day.

AVAILABILITY

- **Tablets:** 5 mg^{Rx}, 10 mg^{Rx}, 15 mg^{Rx}
- **Cost:** 5 mg \$90.71/100, 10 mg \$158.19/100, 15 mg \$141.82/60.

TIME/ACTION PROFILE (relief of anxiety)

	ONSET	PEAK	DURATION
PO	7–10 days	3–4 wk	unknown

NURSING IMPLICATIONS

ASSESSMENT

- Assess degree and manifestations of anxiety before and periodically during therapy.
- Bupirone does not appear to cause physical or psychological dependence or tolerance. However, patients with a history of drug abuse should be assessed for tolerance or dependence. Restrict amount of drug available to these patients.

POTENTIAL NURSING DIAGNOSES

- Anxiety (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse bupirone with bupropion.
 - Patients changing from other antianxiety agents should receive gradually decreasing doses. Bupirone will not prevent withdrawal symptoms.

Continued on the following page

- **PO:** May be administered with food to minimize gastric irritation. Food slows but does not alter extent of absorption.

PATIENT/FAMILY TEACHING

- Instruct patient to take bupirone exactly as directed. Take missed doses as soon as possible if not just before next dose; do not double doses. Do not take more than amount prescribed.
- May cause dizziness or drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to the medication is known.
- Advise patient to avoid concurrent use of alcohol or other CNS depressants.
- Advise patient to consult health care professional before taking OTC medications or herbal products with this drug.
- Instruct patient to notify health care professional if any

chronic abnormal movements occur (dystonia, motor restlessness, involuntary movements of facial or cervical muscles) or if pregnancy is suspected.

- Emphasize the importance of follow-up exams to determine effectiveness of medication.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Increase in sense of well-being
 - Decrease in subjective feelings of anxiety. Some improvement may be seen in 7–10 days. Optimal results take 3–4 wk of therapy. Bupirone is usually used for short-term therapy (3–4 wk). If prescribed for long-term therapy, efficacy should be periodically assessed.

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carbamazepine

(kar-ba-maz-e-peen)

Apo-Carbamazepine , Atretol, Carbatrol, Epitol, Novo-Carbamaz , Tegretol, Tegretol CR, Tegretol-XR, Teril

CLASSIFICATION(S):

Therapeutic: anticonvulsants

Pregnancy Category C

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INDICATIONS

- Prophylaxis of tonic-clonic, mixed, and complex-partial seizures
- Management of pain in trigeminal neuralgia.
- Unlabelled Uses:
 - Other forms of neurogenic pain.
 - Prophylaxis and treatment of bipolar disorder.

ACTION

- Decreases synaptic transmission in the CNS by affecting sodium channels in neurons.
- **Therapeutic Effects:**
 - Prevention of seizures
 - Relief of pain in trigeminal neuralgia.

PHARMACOKINETICS

Absorption: Absorption is slow but complete. Suspension produces earlier, higher peak and lower trough levels.

Distribution: Widely distributed. Crosses the blood-brain barrier. Crosses the placenta rapidly and enters breast milk in high concentrations.

Metabolism and Excretion: Extensively metabolized by the liver; epoxide metabolite has anticonvulsant and antineuralgic activity.

Half-life: *Carbamazepine*—single dose—25–65 hr, chronic dosing—8–29 hr; *epoxide*—5–8 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Bone marrow depression.
- Pregnancy (use only if potential benefits outweigh risks to the fetus; additional vitamin K during last weeks of pregnancy has been recommended)
- Lactation.

Use Cautiously in:

- Cardiac disease
- Hepatic disease
- Older men with prostatic hypertrophy
- Increased intraocular pressure.

Continued on the following page

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: ataxia, drowsiness, fatigue, psychosis, vertigo.

EENT: blurred vision, corneal opacities.

Resp: pneumonitis.

CV: CHF, hypertension, hypotension, syncope.

GI: hepatitis.

GU: hesitancy, urinary retention.

Derm: photosensitivity, rashes, urticaria.

Endo: syndrome of inappropriate antidiuretic hormone (SIADH).

Hemat: **AGRANULOCYTOSIS, APLASTIC ANEMIA, THROMBOCYTOPENIA**, eosinophilia, leukopenia.

Misc: chills, fever, lymphadenopathy.

INTERACTIONS**Drug–Drug:**

- ↓ levels/may ↓ effectiveness of corticosteroids, doxycycline, felbamate, quinidine, warfarin, estrogen-containing contraceptives, barbiturates, cyclosporine, benzodiazepines, theophylline, lamotrigine, valproic acid, bupropion, and haloperidol
- Danazol ↑ blood levels (avoid concurrent use if possible)
- Concurrent use (within 2 wk) of MAO inhibitors may result in hyperpyrexia, hypertension, seizures, and death
- Verapamil, diltiazem, propoxyphene, erythromycin, clarithromycin, SSRIs, antidepressants, or cimetidine ↑ levels; may cause toxicity
- May ↑ risk of hepatotoxicity from isoniazid
- Felbamate ↓ carbamazepine levels but ↑ levels of active metabolite

- May ↓ effectiveness and ↑ risk of toxicity from acetaminophen
- May ↑ risk of CNS toxicity from lithium
- May ↓ duration of action of nondepolarizing neuromuscular blocking agents.

Drug–Food:

- Grapefruit juice ↑ serum levels and effect.

ROUTE AND DOSAGE

- **PO (Adults):** *Anticonvulsant*—200 mg twice daily (tablets) or 100 mg 4 times daily (suspension); increase by 200 mg/day q 7 days until therapeutic levels are achieved (range is 600–1200 mg/day in divided doses q 6–8 hr; not to exceed 1 g/day in 12–15-yr-olds. Extended-release products are given twice daily (XR, CR). *Antineuralgic*—100 mg twice daily or 50 mg 4 times daily (suspension); increase by up to 200 mg/day until pain is relieved, then maintenance dose of 200–1200 mg/day in divided doses (usual range, 400–800 mg/day).
- **PO (Children 6–12 yr):** 100 mg twice daily (tablets) or 50 mg 4 times daily (suspension) increased by 100 mg weekly until therapeutic levels are obtained (usual range 400–800 mg/day; not to exceed 1 g/day). Extended-release products (XR, CR) are given twice.
- **PO (Children <6 yr):** 10–20 mg/kg/day in 2–3 divided doses; may be increased by 100 mg/day at weekly intervals. Usual maintenance dose is 250–350 mg/day (not to exceed 400 mg/day).

AVAILABILITY

- **Tablets:** 200 mg^{Rx}
- **Cost:** 200 mg \$51.24/100
- **Chewable tablets:** 100 mg^{Rx}, 200 mg^{Rx}
- **Extended-release capsules:** 200 mg^{Rx}, 300 mg^{Rx}
- **Extended-release tablets:** 100 mg^{Rx}, 200 mg^{Rx}, 400 mg^{Rx}
- **Oral suspension (citrus/vanilla flavor):** 100 mg/5 ml^{Rx}.

Continued on the following page

TIME/ACTION PROFILE (anticonvulsant activity)

	ONSET	PEAK	DURATION
PO	up to one month [†]	4–5 hr [‡]	6–12 hr
PO-ER	up to one month [†]	2–3–12 hr [‡]	12 hr

[†]Onset of antineuralgic activity is 8–72 hr.

[‡]Listed for tablets; peak level occurs 1.5 hr after a chronic dose of suspension.

NURSING IMPLICATIONS

ASSESSMENT

- **Seizures:** Assess frequency, location, duration, and characteristics of seizure activity.
- **Trigeminal Neuralgia:** Assess for facial pain (location, intensity, duration). Ask patient to identify stimuli that may precipitate facial pain (hot or cold foods, bedclothes, touching face).
- **Lab Test Considerations:** Monitor CBC, including platelet count, reticulocyte count, and serum iron, weekly during the first 2 mo and yearly thereafter for evidence of potentially fatal blood cell abnormalities. Medication should be discontinued if bone marrow depression occurs.
 - Liver function tests, urinalysis, and BUN should be routinely performed. May cause ↑ AST, ALT, serum alkaline phosphatase, bilirubin, BUN, urine protein, and urine glucose levels.
 - Monitor serum ionized calcium levels every 6 mo or if seizure frequency increases. Thyroid function tests and ionized serum calcium concentrations may be ↓; hypocalcemia decreases seizure threshold.
 - Monitor ECG and serum electrolytes before and periodically during therapy. May cause hyponatremia.

- May occasionally cause ↑ serum cholesterol, high-density lipoprotein, and triglyceride concentrations.
- May cause false-negative pregnancy test results with tests that determine human chorionic gonadotropin.

- **Toxicity and Overdose:** Serum blood levels should be routinely monitored during therapy. Therapeutic levels range from 6–12 mcg/ml.

POTENTIAL NURSING DIAGNOSES

- Injury, risk for (Indications, Side Effects).
- Pain, chronic (Indications).

IMPLEMENTATION

- **General:** Implement seizure precautions as indicated.
- **PO:** Administer medication with food to minimize gastric irritation. Tablets may be crushed if patient has difficulty swallowing. **Do not crush or chew extended-release tablets.** Extended-release capsules may be opened and the contents sprinkled on applesauce or other similar foods.
 - Do not administer suspension simultaneously with other liquid medications or diluents; mixture produces an orange rubbery mass.

PATIENT/FAMILY TEACHING

- **General:** Instruct patient to take carbamazepine around the clock, exactly as directed. If a dose is missed, take as soon as possible but not just before next dose; do not double doses. Notify health care professional if more than one dose is missed. Medication should be gradually discontinued to prevent seizures.
 - May cause dizziness or drowsiness. Advise patients to avoid driving or other activities requiring alertness until response to medication is known.
 - **Instruct patients that fever, sore throat, mouth ulcers, easy bruising, petechiae, unusual bleeding, abdominal pain, chills, rash, pale stools, dark urine, or jaundice should be reported to health care professional immediately.**

Continued on the following page

- Inform patient that coating of *Tegretol XR* is not absorbed, but is excreted in feces and may be visible in stool.
- Advise patient not to take alcohol or other CNS depressants concurrently with this medication.
- Caution patients to use sunscreen and protective clothing to prevent photosensitivity reactions.
- Inform patient that frequent mouth rinses, good oral hygiene, and sugarless gum or candy may help reduce dry mouth. Saliva substitute may be used. Consult dentist if dry mouth persists >2 wk.
- Advise female patients to use a nonhormonal form of contraception while taking carbamazepine.

- Instruct patient to notify health care professional of medication regimen before treatment or surgery.
- Emphasize the importance of follow-up lab tests and eye exams to monitor for side effects.
- **Seizures:** Advise patients to carry identification describing disease and medication regimen at all times.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Absence or reduction of seizure activity
- Decrease in trigeminal neuralgia pain. Patients with trigeminal neuralgia who are pain-free should be re-evaluated every 3 mo to determine minimum effective dose.

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chlordiazepoxide

(klor-dye-az-e-pox-ide)

Apo-Chlordiazepoxide, Libritabs, Librium, Novopoxide

CLASSIFICATION(S):

Therapeutic: *antianxiety agents, sedative/hypnotics*

Pharmacologic: *benzodiazepines*

Schedule IV

Pregnancy Category D

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INDICATIONS

- Adjunct management of anxiety
- Treatment of alcohol withdrawal.

ACTION

- Acts at many levels of the CNS to produce anxiolytic effect
- Depresses the CNS, probably by potentiating GABA, an inhibitory neurotransmitter.
- **Therapeutic Effects:**
 - Sedation
 - Relief of anxiety.

PHARMACOKINETICS

Absorption: Well absorbed from the GI tract. IM absorption may be slow and unpredictable.

Distribution: Widely distributed. Crosses the blood-brain barrier. Crosses the placenta; enters breast milk.

Metabolism and Excretion: Highly metabolized by the liver. Some products of metabolism are active as CNS depressants.

Half-life: 5–30 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Some products contain tartrazine and should be avoided in patients with known intolerance
- Cross-sensitivity with other benzodiazepines may occur
- Comatose patients or those with pre-existing CNS depression
- Uncontrolled severe pain
- Narrow-angle glaucoma
- Porphyria
- Pregnancy and lactation
- Children ≤6 yr.

Use Cautiously in:

- Hepatic dysfunction
- Severe renal impairment
- History of suicide attempt or substance abuse
- Geriatric or debilitated patients (initial dosage reduction required).

Continued on the following page

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, drowsiness, hangover, headache, mental depression, paradoxical excitation.

EENT: blurred vision.

GI: constipation, diarrhea, nausea, vomiting.

Derm: rashes.

Local: pain at IM site.

Misc: physical dependence, psychological dependence, tolerance.

INTERACTIONS

Drug-Drug:

- Alcohol, antidepressants, antihistamines, and opioid analgesics—concurrent use results in additive CNS depression
- Cimetidine, oral contraceptives, disulfiram, fluoxetine, isoniazid, ketoconazole, metoprolol, propoxyphene, propranolol, or valproic acid may enhance effects
- May decrease efficacy of levodopa
- Rifampin or barbiturates may decrease effectiveness of chlordiazepoxide
- Sedative effects may be decreased by theophylline.

Drug-Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can increase CNS depression.

ROUTE AND DOSAGE

- PO (Adults): *Alcohol withdrawal*—50–100 mg, repeated until agitation is controlled (up to 400 mg/day). *Anxiety*—5–25 mg 3–4 times daily.
- PO (Geriatric Patients or Debilitated Patients): *Anxiety*—5 mg 2–4 times daily initially, increased as needed.

- PO (Children >6 yr): *Anxiety*—5 mg 2–4 times daily, up to 10 mg 2–3 times daily.
- IM, IV (Adults): *Alcohol withdrawal*—50–100 mg initially; may be repeated in 2–4 hr. *Anxiety*—50–100 mg initially, then 25–50 mg 3–4 times daily as required (25–50 mg initially in geriatric patients). *Preoperative sedation*—50–100 mg 1 hr preop.
- IM, IV (Geriatric Patients or Debilitated Patients): *Anxiety/sedation*—25–50 mg/dose.
- IM, IV (Children >12 yr): *Anxiety/sedation*—25–50 mg/dose.

AVAILABILITY

- **Capsules:** 5 mg^{Rx}, 10 mg^{Rx}, 25 mg^{Rx}
- **Cost:** Librium: 5 mg—\$57.75/100; 10 mg—\$83.95/100; 25 mg—\$143.96/100; generic: 5 mg—\$9.88/100; 10 mg—\$21.00/100; 25 mg—\$22.66/100
- **Tablets:** 5 mg^{Rx}, 10 mg^{Rx}, 25 mg^{Rx}
- **Injection:** 100-mg ampule^{Rx}
- **In combination with:** amitriptyline (Limbitrol DS)^{Rx}, clidinium(Librax)^{Rx}. See Appendix B.

TIME/ACTION PROFILE (sedation)

	ONSET	PEAK	DURATION
PO	1–2 hr	0.5–4 hr	up to 24 hr
IM	15–30 min	unknown	unknown
IV	1–5 min	unknown	0.25–1 hr

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Assess patient for anxiety and level of sedation (ataxia, dizziness, slurred speech) periodically throughout therapy.

Continued on the following page

Psychotropic Drugs: *chlordiazepoxide* (Cont'd)

- Monitor blood pressure, heart rate, and respiratory rate frequently when administering parenterally. Report significant changes immediately.
- Prolonged high-dose therapy may lead to psychological or physical dependence. Restrict the amount of drug available to patient.
- **Alcohol Withdrawal:** Assess patient for tremors, agitation, delirium, and hallucinations. Protect patient from injury.
- **Lab Test Considerations:** Patients on prolonged therapy should have CBC and liver function tests evaluated periodically. May cause an increase in serum bilirubin, AST, and ALT.
 - May alter results of urine 17-ketosteroids and 17-ketogenic steroids. May cause decreased response on metyrapone tests and decreased thyroidal uptake of ^{123}I and ^{131}I .

POTENTIAL NURSING DIAGNOSES

- Anxiety (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse Librium with Librax.
 - IV administration is usually the preferred route for parenteral administration because of the slow, erratic absorption after IM administration.
 - After parenteral administration, have patient remain recumbent and observe for 3–8 hr or longer, depending on patient's response.
 - Equipment to maintain a patent airway should be immediately available when chlordiazepoxide is administered intravenously.
 - Use parenteral solution immediately after reconstitution and discard any unused portion.
- **PO:** Administer after meals or with milk to minimize GI irritation. Tablets may be crushed and taken with food or fluids if patient has difficulty swallowing.
- **IM:** Reconstitute only with 2 ml of diluent provided by manufacturer. Do not use solution if opalescent or hazy. Agitate

gently to minimize bubbling. Administer slowly, deep into a well-developed muscle mass to minimize pain at injection site. Solution reconstituted with IM diluent should not be given IV.

- **Direct IV:** Reconstitute 100 mg in 5 ml of 0.9% NaCl or sterile water for injection. Do not use IM diluent.
- **Rate:** Administer prescribed dose slowly over at least 1 min. Rapid administration may cause apnea, hypotension, bradycardia, or cardiac arrest.
- **Y-Site Compatibility:** ◆ heparin ◆ hydrocortisone sodium succinate ◆ potassium chloride ◆ vitamin B complex with C.

PATIENT/FAMILY TEACHING

- Instruct patient to take chlordiazepoxide exactly as directed. If medication is less effective after a few weeks, check with health care professional; do not increase dose. Medication should be tapered at the completion of long-term therapy. Sudden cessation of medication may lead to withdrawal (insomnia, irritability, nervousness, tremors).
- May cause drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Advise patient to avoid the use of alcohol and other CNS depressants concurrently with this medication.
- Instruct patient to consult health care professional before taking OTC medications.
- Instruct patient to notify health care professional if pregnancy is planned or suspected.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decreased sense of anxiety
 - Increased ability to cope
- Decreased tremulousness and more rational ideation when used for alcohol withdrawal.

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chlorpromazine

(klor-proe-ma-zeen)

Chlorpromanyl, Largactil, Novo-Chlorpromazine, Thorazine, Thor-Prom

CLASSIFICATION(S):

Therapeutic: antiemetics, antipsychotics

Pharmacologic: phenothiazines

Pregnancy Category UK

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INDICATIONS

- Acute and chronic psychoses, particularly when accompanied by increased psychomotor activity
- Nausea and vomiting
- Intractable hiccups
- Preoperative sedation
- Treatment of acute intermittent porphyria.
- Unlabelled Uses:
 - Vascular headache.

ACTION

- Alters the effects of dopamine in the CNS
- Has significant anticholinergic/alpha-adrenergic blocking activity.
- **Therapeutic Effects:**
 - Diminished signs/symptoms of psychosis
 - Relief of nausea/vomiting/intractable hiccups
 - Decreased symptoms of porphyria.

PHARMACOKINETICS

Absorption: Variable absorption from tablets/suppositories; better with oral liquid formulations. Well absorbed following IM administration.

Distribution: Widely distributed; high CNS concentrations. Crosses the placenta; enters breast milk.

Protein Binding: ≥90%.

Metabolism and Excretion: Highly metabolized by the liver and GI mucosa. Some metabolites are active.

Half-life: 30 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Hypersensitivity to sulfites (injectable) or benzyl alcohol (sustained-release capsules)
- Cross-sensitivity with other phenothiazines may occur
- Narrow-angle glaucoma
- Bone marrow depression
- Severe liver/cardiovascular disease.
- Concurrent pimozide use

Use Cautiously in:

- Geriatric/debilitated patients (decrease initial dose)
- Children with acute illnesses infections, gastroenteritis or dehydration (increased risk of extrapyramidal reactions)

Continued on the following page

- Diabetes
- Respiratory disease
- Prostatic hypertrophy
- CNS tumors
- Epilepsy
- Intestinal obstruction
- Pregnancy or lactation (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **NEUROLEPTIC MALIGNANT SYNDROME**, sedation, extrapyramidal reactions, tardive dyskinesia.

EENT: blurred vision, dry eyes, lens opacities.

CV: hypotension(increased with **IM, IV**), tachycardia.

GI: constipation, dry mouth, anorexia, hepatitis, ileus.

GU: urinary retention.

Derm: photosensitivity, pigment changes, rashes.

Endo: galactorrhea.

Hemat: **AGRANULOCYTOSIS**, leukopenia.

Metab: hyperthermia.

Misc: allergic reactions.

INTERACTIONS

Drug–Drug:

- Concurrent use with **pimozide** increases the risk of potentially serious cardiovascular reactions
- May alter serum **phenytoin** levels
- Decreases pressor effect of **norepinephrine** and eliminates bradycardia
- Antagonizes peripheral vasoconstriction from **epinephrine** and may reverse some of its actions

- May decrease elimination and increase effects of **valproic acid**
- May decrease the pharmacologic effects of **amphetamine** and **related compounds**
- May decrease the effectiveness of **bromocriptine**
- May increase blood levels and effects of **tricyclic antidepressants**
- Inhibits the antihypertensive effects of **guanethidine**
- **Antacids** or **adsorbent antidiarrheals** may decrease adsorption; administer 1 hr before or 2 hr after chlorpromazine
- **Activated charcoal** decreases absorption
- Increased risk of anticholinergic effects with **antihistamines**, **tricyclic antidepressants**, **quinidine**, or **disopyramide**
- Premedication with chlorpromazine increases the risk of neuromuscular excitation and hypotension when followed by **barbiturate** anesthesia
- **Barbiturates** may increase metabolism and decrease effectiveness
- Chlorpromazine may decrease **barbiturate** blood levels
- Additive hypotension with **antihypertensives**
- Additive CNS depression with **alcohol**, **antidepressants**, **antihistamines**, **MAO inhibitors**, **opioid analgesics**, **sedative/hypnotics**, or **general anesthetics**
- Concurrent use with **lithium** may produce disorientation, unconsciousness, or extrapyramidal symptoms
- Concurrent use with **meperidine** may produce excessive sedation and hypotension
- May increase the risk of seizures with subarachnoid **metrizamide**
- Concurrent use with **propranolol** increases blood levels of both drugs.

Drug–Natural:

- Concomitant use of **kava**, **valerian**, **skullcap**, **chamomile**, or **hops** can increase CNS depression
- Increased anticholinergic effects with **angel's trumpet** and **jimson weed** and **scopolia**.

Continued on the following page

ROUTE AND DOSAGE

- **PO (Adults):** *Psychoses*—10–25 mg 2–4 times daily; may increase every 3–4 days (usual dose is 200 mg/day; up to 1 g/day) or 30–300 mg 1–3 times daily as extended-release capsules. *Nausea and vomiting*—10–25 mg q 4 hr as needed. *Preoperative sedation*—25–50 mg 2–3 hr before surgery. *Hiccups/porphyria*—25–50 mg 3–4 times daily.
- **PO (Children):** *Psychoses/nausea and vomiting*—0.55 mg/kg (15 mg/m²) q 4–6 hr as needed. *Preoperative sedation*—0.55 mg/kg (15 mg/m²) 2–3 hr before surgery.
- **Rect (Adults):** *Nausea/vomiting*—50–100 mg q 6–8 hr as needed.
- **Rect (Children >6 mo):** 1 mg/kg q 6–8 hr as needed.
- **IM (Adults):** *Severe psychoses*—25–50 mg initially, may be repeated in 1 hr; increase to maximum of 400 mg q 3–12 hr if needed (up to 1 g/day). *Nausea/vomiting*—25 mg initially, may repeat with 25–50 mg q 3–4 hr as needed. *Nausea/vomiting during surgery*—12.5 mg, may be repeated in 30 min as needed. *Preoperative sedation*—12.5–25 mg 1–2 hr prior to surgery. *Hiccups/tetanus*—25–50 mg 3–4 times daily. *Porphyria*—25 mg q 6–8 hr until patient can take PO.
- **IM (Children >6 mo):** *Psychoses/nausea and vomiting*—0.55 mg/kg (15 mg/m²) q 6–8 hr (not to exceed 40 mg/day in children 6 mo–5 yr, or 75 mg/day in children 5–12 yr). *Nausea/vomiting during surgery*—0.275 mg/kg, may repeat in 30 min as needed. *Preoperative sedation*—0.55 mg/kg 1–2 hr prior to surgery. *Tetanus*—0.55 mg/kg q 6–8 hr.
- **IV (Adults):** *Nausea/vomiting during surgery*—up to 25 mg. *Hiccups/tetanus*—25–50 mg. *Porphyria*—25 mg q 8 hr.
- **IV (Children):** *Nausea/vomiting during surgery*—0.275 mg/kg. *Tetanus*—0.55 mg/kg.

AVAILABILITY

- **Tablets:** 10 mg^{Rx}, 25 mg^{Rx}, 50 mg^{Rx}, 100 mg^{Rx}, 200 mg^{Rx}
- **Sustained-release capsules:** 30 mg^{Rx}, 75 mg^{Rx}, 150 mg^{Rx}, 200 mg^{Rx}, 300 mg^{Rx}

- **Syrup (orange custard flavor):** 10 mg/5 ml^{Rx}, 25 mg/5 ml^{Rx}, 100 mg/5 ml^{Rx}
- **Oral concentrate (custard flavor):** 30 mg/ml^{Rx}, 40 mg/ml^{Rx}, 100 mg/ml^{Rx}
- **Suppositories:** 25 mg^{Rx}, 100 mg^{Rx}
- **Injection:** 25 mg/ml^{Rx}.

TIME/ACTION PROFILE (antipsychotic activity, antiemetic activity, sedation)

	ONSET	PEAK	DURATION
PO	30–60 min	unknown	4–6 hr
PO-ER	30–60 min	unknown	10–12 hr
Rectal	1–2 hr	unknown	3–4 hr
IM	unknown	unknown	4–8 hr
IV	rapid	unknown	unknown

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Assess patient's mental status (orientation, mood, behavior) prior to and periodically throughout therapy.
 - Monitor blood pressure (sitting, standing, lying), pulse, and respiratory rate prior to and frequently during the period of dosage adjustment.
 - Observe patient carefully when administering medication to ensure medication is actually taken and not hoarded.
 - Assess fluid intake and bowel function. Increased bulk and fluids in the diet may help minimize constipation.
 - Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait,

Continued on the following page

Psychotropic Drugs: *chlorpromazine* (Cont'd)

rigidity, tremors; and *dystonic*—muscle spasms, twisting motions, twitching, inability to move eyes, weakness of arms or legs) every 2 mo during therapy and 8–12 wk after therapy has been discontinued. Notify physician or other health care professional if these symptoms occur; reduction in dose or discontinuation may be necessary. Trihexyphenidyl or diphenhydramine may be used to control these symptoms.

- Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities; lip smacking or puckering; puffing of cheeks; uncontrolled chewing; rapid or worm-like movements of tongue). Report these symptoms immediately; may be irreversible.
- **Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, convulsions, diaphoresis, hypertension or hypotension, pallor, tiredness, severe muscle stiffness, loss of bladder control). Report these symptoms immediately.**
- **Preoperative Sedation:** Assess level of anxiety prior to and following administration.
- **Vascular Headache:** Assess type, location, intensity, and duration of pain and accompanying symptoms.
- **Lab Test Considerations:** Monitor CBC, liver function tests, and ocular exams periodically throughout therapy. May cause decreased hematocrit, hemoglobin, leukocytes, granulocytes, platelets. May cause elevated bilirubin, AST, ALT, and alkaline phosphatase. Agranulocytosis occurs 4–10 wk after initiation of therapy, with recovery 1–2 wk following discontinuation. May recur if medication is restarted. Liver function abnormalities may require discontinuation of therapy. May cause false-positive or false-negative pregnancy tests and false-positive urine bilirubin test results.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Indications).
- Knowledge, deficient, related to medication regimen (Patient/Family Teaching).
- Noncompliance (Patient/Family Teaching).

IMPLEMENTATION

- **General:** Do not confuse chlorpromazine with chlorpromamide or prochlorperazine.
 - Keep patient recumbent for at least 30 min following parenteral administration to minimize hypotensive effects.
 - To prevent contact dermatitis, avoid getting solution on hands.
 - Phenothiazines should be discontinued 48 hr before and not resumed for 24 hr following metrizamide myelography, because they lower the seizure threshold.
- **Hiccups:** Initial treatment is with oral doses. If hiccups persist 2–3 days, IM injection may be used, followed by IV infusion.
- **PO:** Administer oral doses with food, milk, or a full glass of water to minimize gastric irritation. Tablets may be crushed. Do not open capsules; swallow whole. Sustained-release capsules may be opened but contents should not be chewed. Dilute concentrate just prior to administration in 120 ml of coffee, tea, tomato or fruit juice, milk, water, soup, or carbonated beverages.
- **Rect:** If suppository is too soft for insertion, chill in refrigerator for 30 min or run under cold water before removing foil wrapper.
- **IM:** Do not inject subcut. Inject slowly into deep, well-developed muscle. May be diluted with 0.9% NaCl or 2% procaine. Lemon-yellow color does not alter potency of solution. Do not administer solution that is markedly discolored or contains a precipitate.
- **Direct IV:** Dilute with 0.9% NaCl for a concentration not to exceed 1 mg/ml.
- **Rate:** Inject slowly at a rate of at least 1 mg/min for adults and 0.5 mg/min for children.
- **Continuous Infusion:** May dilute 25–50 mg in 500–1000 ml of D5W, D10W, 0.45% NaCl, 0.9% NaCl, Ringer's or lactated Ringer's injection, dextrose/Ringer's or dextrose/lactated Ringer's combinations.

Continued on the following page

Psychotropic Drugs: *chlorpromazine* (Cont'd)

- **Syringe Compatibility:** ♦ atropine ♦ benztropine ♦ butorphanol ♦ diphenhydramine ♦ doxapram ♦ droperidol ♦ fentanyl ♦ glycopyrrolate ♦ hydromorphone ♦ hydroxyzine ♦ meperidine ♦ metoclopramide ♦ midazolam ♦ morphine ♦ pentazocine ♦ scopolamine.
- **Syringe Incompatibility:** ♦ cimetidine ♦ dimenhydrinate ♦ heparin ♦ pentobarbital ♦ thiopental.
- **Y-Site Compatibility:** ♦ cisatracurium ♦ cisplatin ♦ cladribine ♦ cyclophosphamide ♦ cytarabine ♦ docetaxel ♦ doxorubicin ♦ doxorubicin liposome ♦ famotidine ♦ filgrastim ♦ fluconazole ♦ gatifloxacin ♦ gemcitabine ♦ granisetron ♦ heparin ♦ hydrocortisone sodium succinate ♦ ondansetron ♦ potassium chloride ♦ propofol ♦ teniposide ♦ thiotepa ♦ vinorelbine ♦ vitamin B complex with C.
- **Y-Site Incompatibility:** ♦ allopurinol ♦ amifostine ♦ amphotericin B cholesteryl sulfate complex ♦ aztreonam ♦ cefepime ♦ etoposide ♦ fludarabine ♦ furosemide ♦ linezolid ♦ melphalan ♦ methotrexate ♦ paclitaxel ♦ piperacillin/tazobactam ♦ sargramostim.

PATIENT/FAMILY TEACHING

- Advise patient to take medication exactly as directed and not to skip doses or double up on missed doses. If a dose is missed, take within 1 hr or omit dose and return to regular schedule. Abrupt withdrawal may lead to gastritis, nausea, vomiting, dizziness, headache, tachycardia, and insomnia.
- Inform patient of possibility of extrapyramidal symptoms and tardive dyskinesia. Instruct patient to report these symptoms immediately to health care professional.
- Advise patient to change positions slowly to minimize orthostatic hypotension.
- Medication may cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to the medication is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.

- Advise patient to use sunscreen and protective clothing when exposed to the sun. Exposed surfaces may develop a temporary pigment change (ranging from yellow-brown to grayish purple). Extremes of temperature (exercise, hot weather, hot baths or showers) should also be avoided, because this drug impairs body temperature regulation.
- Instruct patient to use frequent mouth rinses, good oral hygiene, and sugarless gum or candy to minimize dry mouth. Consult health care professional if dry mouth continues for >2 wk.
- Advise patient not to take chlorpromazine within 2 hr of antacids or antidiarrheal medication.
- Inform patient that this medication may turn urine a pink-to-reddish-brown color.
- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- Instruct patient to notify health care professional promptly if sore throat, fever, unusual bleeding or bruising, rash, weakness, tremors, visual disturbances, dark-colored urine, or clay-colored stools occur.
- Emphasize the importance of routine follow-up exams and continued participation in psychotherapy as indicated.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in excitable, paranoid, or withdrawn behavior. Therapeutic effects may not be seen for 7–8 wk
- Relief of nausea and vomiting
- Relief of hiccups
- Preoperative sedation
- Management of porphyria
- Relief of vascular headache.

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citalopram

(si-tal-oh-pram)

Celexa

CLASSIFICATION(S):

Therapeutic: antidepressants

Pharmacologic: selective serotonin reuptake inhibitors (SSRIs)

Pregnancy Category C

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INDICATIONS

- Treatment of depression, often in conjunction with psychotherapy.

ACTION

- Selectively inhibits the reuptake of serotonin in the CNS.
- **Therapeutic Effects:**
 - Antidepressant action.

PHARMACOKINETICS

Absorption: 80% absorbed after oral administration.

Distribution: Enters breast milk.

Metabolism and Excretion: Mostly metabolized by the liver (10% by CYP 3A4 and 2C19 enzymes); excreted unchanged in urine.

Half-life: 35 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Concurrent MAO inhibitor therapy.

Use Cautiously in:

- History of mania
- History of seizure disorder

- Illnesses or conditions that are likely to result in altered metabolism or hemodynamic responses
- Hepatic impairment or geriatric patients (lower doses recommended)
- Severe renal impairment
- Pregnancy, lactation, or children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: apathy, confusion, drowsiness, insomnia, weakness, agitation, amnesia, anxiety, decreased libido, dizziness, fatigue, impaired concentration, increased depression, migraine headache, suicide attempt.

EENT: abnormal accommodation.

Resp: cough.

CV: postural hypotension, tachycardia.

GI: abdominal pain, anorexia, diarrhea, dry mouth, dyspepsia, flatulence, increased saliva, nausea, altered taste, increased appetite, vomiting.

GU: amenorrhea, dysmenorrhea, ejaculatory delay, impotence, polyuria.

Continued on the following page

Derm: increased sweating, photosensitivity, pruritus, rash.

Metab: decreased weight, increased weight.

MS: arthralgia, myalgia.

Neuro: tremor, paresthesia.

Misc: fever, yawning.

INTERACTIONS

Drug–Drug:

- May cause serious, potentially fatal reactions when used with MAO inhibitors; allow at least 14 days between citalopram and MAO inhibitors
- Use cautiously with other centrally acting drugs (including alcohol, antihistamines, opioid analgesics, and sedative/hypnotics; concurrent use with alcohol is not recommended)
- Cimetidine increases blood levels of citalopram
- Serotonergic effects may be potentiated by lithium (concurrent use should be carefully monitored)
- Ketoconazole, itraconazole, erythromycin, and omeprazole may increase blood levels
- Carbamazepine may decrease blood levels
- May increase blood levels of metoprolol
- Concurrent use with tricyclic antidepressants should be undertaken with caution because of altered pharmacokinetics
- Concurrent use with 5-HT₁ agonists used for migraine headaches may increase the risk of adverse reactions (weakness, hyperreflexia, incoordination).

Drug–Natural:

- Increased risk of serotonergic side effects including serotonin syndrome with St. John's wort and SAME.

ROUTE AND DOSAGE

- PO (Adults): 20 mg once daily initially, may be increased by 20 mg/day at weekly intervals, up to 60 mg/day (usual dose is 40 mg/day).

- PO (Geriatric Patients): 20 mg once daily initially, may be increased to 40 mg/day only in nonresponding patients.

Hepatic Impairment

- PO (Adults): 20 mg once daily initially, may be increased to 40 mg/day only in nonresponding patients.

AVAILABILITY

- Tablets: 10 mg^{Rx}, 20 mg^{Rx}, 40 mg^{Rx}
- Cost: 20 mg \$216.06/100, 40 mg \$225.46/100
- Oral solution (peppermint flavor): 10 mg/5 ml^{Rx}
- Cost: 10 mg/5 ml \$207.29/100 ml.

TIME/ACTION PROFILE (antidepressant effect)

	ONSET	PEAK	DURATION
PO	1–4wk	unknown	unknown

NURSING IMPLICATIONS

ASSESSMENT

- General: Monitor mood changes throughout therapy.
 - Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- General: Do not confuse with Celebrex (celexicob) or Cerebyx (fosphenytoin) or Zyprexa (olanzapine).
- PO: Administer as a single dose in the morning or evening without regard to food.

Continued on the following page

PATIENT/FAMILY TEACHING

- Instruct patient to take citalopram exactly as directed.
- May cause drowsiness, dizziness, impaired concentration, and blurred vision. Caution patient to avoid driving and other activities requiring alertness until response to the drug is known.
- Advise patient to avoid alcohol or other CNS depressant drugs during therapy and to consult health care professional before taking other medications with citalopram.
- Caution patient to change positions slowly to minimize dizziness.
- Advise patient to use sunscreen and wear protective clothing to prevent photosensitivity reactions.
- Inform patient that frequent mouth rinses, good oral hygiene, and sugarless gum or candy may minimize dry mouth. If dry mouth persists for more than 2 wk, consult health care professional regarding use of saliva substitute.

- Instruct female patients to inform health care professional if pregnancy is planned or suspected, or if they plan to breast-feed an infant.
- **Caution patients that citalopram should not be used for at least 14 days after discontinuing MAO inhibitors, and at least 14 days should be allowed after stopping citalopram before starting an MAO inhibitor.**
- Emphasize the importance of follow-up exams to monitor progress. Encourage patient participation in psychotherapy as directed.

EVALUATION**Effectiveness of therapy can be demonstrated by:**

- Increased sense of well-being
 - Renewed interest in surroundings. May require 1–4 wk of therapy to obtain antidepressant effects.

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clomipramine

(kloe-mip-ra-meen)

Anafranil

CLASSIFICATION(S):

Therapeutic: antiobsessive agents

Pharmacologic: tricyclic antidepressants

Pregnancy Category C

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INDICATIONS

- Management of OCD.
- Unlabelled Uses:
 - Treatment of depression.

ACTION

- Potentiates the effect of serotonin (antiobsessional effect) and norepinephrine in the CNS. Has moderate anticholinergic effects.
- **Therapeutic Effects:**
 - Diminished obsessive-compulsive behavior.

PHARMACOKINETICS

Absorption: Well absorbed from the GI tract.

Distribution: Widely distributed, enters breast milk.

Protein Binding: ≥90%.

Metabolism and Excretion: Extensively metabolized by the liver. Some conversion to a pharmacologically active metabolite (desmethylclomipramine). Undergoes enterohepatic recirculation and secretion into gastric juices.

Half-life: 21–31 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Narrow-angle glaucoma
- Recent myocardial infarction
- Concurrent MAO inhibitor or clonidine use (avoid if possible)
- Pregnancy or lactation.

Use Cautiously in:

- History of seizures (threshold may be lowered)
- Geriatric patients
- Patients with pre-existing cardiovascular disease
- Older men with prostatic hypertrophy (may be more susceptible to urinary retention)
- Hyperthyroidism (increased risk of arrhythmias)
- Children <10 yr (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

Continued on the following page

CNS: **SEIZURES**, lethargy, sedation, weakness, aggressive behavior.

EENT: blurred vision, dry eyes, dry mouth, vestibular disorder.

CV: **ARRHYTHMIAS**, ECG changes, orthostatic hypotension.

GI: constipation, nausea, vomiting, eructation.

GU: male sexual dysfunction, urinary retention.

Derm: dry skin, photosensitivity.

Endo: gynecomastia.

Hemat: anemia.

MS: muscle weakness.

Neuro: extrapyramidal reactions.

Misc: hyperthermia, weight gain.

INTERACTIONS

Drug–Drug:

- May cause hypotension and tachycardia when used with **MAO inhibitors** (concurrent use not recommended)
- May prevent the therapeutic response to **antihypertensives**
- Use with **clonidine** may result in hypertensive crisis (avoid concurrent use)
- Additive CNS depression with other CNS depressants including **alcohol**, **antihistamines**, **opioid analgesics**, and **sedative/hypnotics**
- Adrenergic and anticholinergic side effects may be additive with other **agents having adrenergic/anticholinergic properties**
- Effects and toxicity may be increased by concurrent use with **SSRI antidepressants** (wait several weeks after stopping SSRIs to start clomipramine; up to 5 weeks for

fluoxetine), **phenothiazines**, **cimetidine**, or **oral contraceptives**

- **Nicotine** may increase metabolism and decrease effectiveness
- Transient delirium may occur with **disulfiram**
- Increased risk of adverse cardiovascular reactions with **sparfloxacin**.

Drug–Natural:

- Increased risk of serotonergic side effects including serotonin syndrome with **St. John's wort** and **SAME**
- **Kava**, **valerian**, **skullcap**, **chamomile**, or **hops** can increase CNS depression.

Drug–Food:

- **Grapefruit juice** increases serum levels and effect.

ROUTE AND DOSAGE

- **PO (Adults):** *Antiobsessive*—25 mg/day, increased over 2-wk period to 100 mg/day in divided doses. May be further increased over several weeks up to 250–300 mg/day in divided doses. Once stabilizing dose is reached, entire daily dose may be given at bedtime. *Antidepressant*—25 mg 3 times daily, may be increased as needed (unlabeled).
- **PO (Geriatric Patients):** 20–30 mg/day initially, may be increased as needed.
- **PO (Children >10–17 yr):** 25 mg/day initially, increased over 2-wk period to 3 mg/kg/day or 100 mg/day (whichever is smaller) in divided doses. May be further increased to 3 mg/kg/day or 200 mg/day (whichever is smaller) in divided doses. Once stabilizing dose is reached, entire daily dose may be given at bedtime.

AVAILABILITY

- **Capsules:** 10 mg^{Rx}, 25 mg^{Rx}, 50 mg^{Rx}, 75 mg^{Rx}.

Continued on the following page

TIME/ACTION PROFILE

	ONSET	PEAK	DURATION
PO	1–6 wk	unknown	unknown

NURSING IMPLICATIONS

ASSESSMENT

- Monitor mental status and affect. Assess patient for frequency of OCD. Note degree to which these thoughts and behaviors interfere with daily functioning.
- Monitor blood pressure and pulse before and during initial therapy. Notify physician or other health care professional of decreases in blood pressure (10–20 mmHg) or sudden increase in pulse rate. **Patients taking high doses or with a history of cardiovascular disease should have ECG monitored before and periodically throughout therapy.**
- Observe for onset of extrapyramidal parkinsonian side effects (difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait, rigidity, tremors). Notify physician or other health care professional if these symptoms occur; reduction in dose or discontinuation of medication may be necessary. Trihexyphenidyl or diphenhydramine may be used to control these symptoms.
- **Lab Test Considerations:** Serum glucose may be increased or decreased.
 - Monitor CBC and differential during chronic therapy. May rarely cause bone marrow suppression.
 - In chronic therapy, periodically monitor hepatic and renal function.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (obsessive-compulsive behaviors), related to repressed anxiety (Indications).

- Injury, risk for (Side Effects).
- Knowledge, deficient, related to medication regimen (Patient/Family Teaching).

IMPLEMENTATION

- **General:** **Do not confuse clomipramine with clomiphene or desipramine.**
- **PO:** Administer medication with or immediately after a meal to minimize gastric irritation. After titration of dose, total daily dose may be given at bedtime.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed. Abrupt discontinuation may cause nausea, headache, and malaise.
- May cause drowsiness and blurred vision. Caution patient to avoid driving and other activities requiring alertness until response to drug is known.
- Orthostatic hypotension, sedation, and confusion are common during early therapy, especially in geriatric patients. Protect patient from falls and advise patient to change positions slowly.
- Advise patient to avoid alcohol or other CNS depressant drugs during course of therapy and for 3–7 days after cessation of therapy.
- Instruct patient to notify health care professional if dry mouth or constipation persists or if urinary retention, uncontrolled movements, or rigidity occurs. Sugarless candy or gum may diminish dry mouth, and an increase in fluid intake or bulk may prevent constipation. If these symptoms persist, dosage reduction or discontinuation may be necessary. Consult health care professional if dry mouth persists for more than 2 wk.
- Advise patient to inform health care professional if sexual dysfunction occurs. Inform male patients that sexual dysfunction is common with this medication.

Continued on the following page

- Caution patient to use sunscreen and protective clothing to prevent photosensitivity reactions.
- Inform patient of need to monitor dietary intake because possible increase in appetite may lead to undesired weight gain.
- Advise patient to notify health care professional of medication regimen before treatment or surgery.

- Emphasize the importance of follow-up exams to monitor effectiveness and side effects.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Diminished obsessive compulsive behavior.

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clonazepam

(kloe-na-ze-pam)

Klonopin, Rivotril, Syn-Clonazepam

CLASSIFICATION(S):

Therapeutic: anticonvulsants

Pharmacologic: benzodiazepines

Schedule IV

Pregnancy Category C

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INDICATIONS

- Prophylaxis of:
 - Petit mal
 - Petit mal variant
 - Akinetic
 - Myoclonic seizures
- Management of panic disorder.
- **Unlabelled Uses:**
 - Uncontrolled leg movements during sleep
 - Neuralgias
 - Sedation.

ACTION

- Anticonvulsant effects may be due to presynaptic inhibition
- Produces sedative effects in the CNS, probably by stimulating inhibitory GABA receptors.
- **Therapeutic Effects:**
 - Prevention of seizures.

PHARMACOKINETICS

Absorption: Well absorbed from the GI tract.

Distribution: Probably crosses the blood-brain barrier and the placenta.

Metabolism and Excretion: Mostly metabolized by the liver.

Half-life: 18–50 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity to clonazepam or other benzodiazepines
- Severe liver disease.

Use Cautiously in:

- Narrow-angle glaucoma
- Chronic respiratory disease
- History of porphyria
- Do not discontinue abruptly
- Pregnancy, lactation, or children (safety not established; chronic use during pregnancy may result in withdrawal in the neonate).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

Continued on the following page

CNS: behavioral changes, drowsiness.

EENT: abnormal eye movements, diplopia, nystagmus.

Resp: increased secretions.

CV: palpitations.

GI: constipation, diarrhea, hepatitis.

GU: dysuria, nocturia, urinary retention.

Hemat: anemia, eosinophilia, leukopenia, thrombocytopenia.

Neuro: ataxia, hypotonia.

Misc: fever, physical dependence, psychological dependence, tolerance.

INTERACTIONS

Drug–Drug:

- Alcohol, antidepressants, antihistamines, other benzodiazepines, and opioid analgesics—concurrent use results in additive CNS depression
- Cimetidine, hormonal contraceptives, disulfiram, fluoxetine, isoniazid, ketoconazole, metoprolol, propoxyphene, propranolol, or valproic acid may decrease the metabolism of clonazepam, enhancing its actions
- May decrease efficacy of levodopa
- Rifampin or barbiturates may increase the metabolism and decrease effectiveness of clonazepam
- Sedative effects may be decreased by theophylline
- May increase serum phenytoin levels
- Phenytoin may decrease serum clonazepam levels.

Drug–Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can increase CNS depression.

ROUTE AND DOSAGE

- **PO (Adults):** 0.5 mg 3 times daily; may increase by 0.5–1 mg q 3rd day. Total daily maintenance dose not to exceed 20 mg. *Panic disorder*—0.125 mg twice daily; increase after 3 days toward target dose of 1 mg/day (some patients may require up to 4 mg/day).
- **PO (Children <10 yr or 30 kg):** Initial daily dose 0.01–0.03 mg/kg/day (not to exceed 0.05 mg/kg/day) given in 2–3 equally divided doses; increase by no more than 0.25–0.5 mg q 3rd day until therapeutic blood levels are reached (not to exceed 0.2 mg/kg/day).

AVAILABILITY

- **Tablets:** 0.5 mg^{Rx}, 1 mg^{Rx}, 2 mg^{Rx}
- **Cost:** *Klonopin*—0.5 mg \$73.99/100; 1 mg \$84.40/100; 2 mg \$116.96/100; *generic*—0.5 mg \$71.37/100; 1 mg \$77.80/100; 2 mg \$112.82/100.

TIME/ACTION PROFILE (anticonvulsant activity)

	ONSET	PEAK	DURATION
PO	20–60 min	1–2 hr	6–12 hr

NURSING IMPLICATIONS

ASSESSMENT

- Observe and record intensity, duration, and location of seizure activity.
- Assess degree and manifestations of anxiety and mental status prior to and periodically during therapy.
- Assess patient for drowsiness, unsteadiness, and clumsiness. These symptoms are dose related and most severe during initial therapy; may decrease in severity or disappear with continued or long-term therapy.

Continued on the following page

- **Lab Test Considerations:** Patients on prolonged therapy should have CBC and liver function test results evaluated periodically. May cause an increase in serum bilirubin, AST, and ALT.
 - May cause decreased thyroidal uptake of sodium iodide, ^{123}I , and ^{131}I .
- **Toxicity and Overdose:** Therapeutic serum concentrations are 20–80 mg/ml.

POTENTIAL NURSING DIAGNOSES

- Injury, risk for (Indications, Side Effects).

IMPLEMENTATION

- **General:** Do not confuse clonazepam with clonidine or clonazepate.
 - Institute seizure precautions for patients on initial therapy or undergoing dose manipulations.
- **PO:** Administer with food to minimize gastric irritation. Tablets may be crushed if patient has difficulty swallowing.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed. Missed doses should be taken within 1 hr or omitted; do not double doses. Abrupt withdrawal of clonazepam may cause status epilepticus, tremors, nausea, vomiting, and abdominal and muscle cramps.

- Medication may cause drowsiness or dizziness. Advise patient to avoid driving or other activities requiring alertness until response to drug is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- Instruct patient and family to notify health care professional of unusual tiredness, bleeding, sore throat, fever, clay-colored stools, yellowing of skin, or behavioral changes.
- Patient on anticonvulsant therapy should carry identification at all times describing disease process and medication regimen.
- Emphasize the importance of follow-up exams to determine effectiveness of the medication.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease or cessation of seizure activity without undue sedation. Dosage adjustments may be required after several months of therapy
- Decrease in frequency and severity of panic attacks
- Relief of leg movements during sleep
- Decrease in pain from neuralgia.

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clozapine

(kloe-za-peen)

Clozaril

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pregnancy Category B

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INDICATIONS

- Schizophrenia unresponsive to or intolerant of standard therapy with other antipsychotics.
- To reduce recurrent suicidal behavior in schizophrenic patients.

ACTION

- Binds to dopamine receptors in the CNS
- Also has anticholinergic and alpha-adrenergic blocking activity
- Produces fewer extrapyramidal reactions and less tardive dyskinesia than standard antipsychotics but carries high risk of hematologic abnormalities.
- **Therapeutic Effects:**
 - Diminished schizophrenic behavior. Diminished suicidal behavior.

PHARMACOKINETICS

Absorption: Well absorbed after oral administration.

Distribution: Rapid and extensive distribution; crosses blood-brain barrier and placenta.

Protein Binding: 95%.

Metabolism and Excretion: Mostly metabolized on first pass through the liver.

Half-life: 8–12 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Bone marrow depression
- Lactation
- Severe CNS depression/coma.

Use Cautiously in:

- Prostatic enlargement
- Narrow-angle glaucoma
- Malnourished patients or patients with cardiovascular, hepatic, or renal disease (use lower initial dose, titrate more slowly)
- Diabetes
- Seizure disorder
- Children <16 yr (safety not established).

Continued on the following page

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **NEUROLEPTIC MALIGNANT SYNDROME**, **SEIZURES**, dizziness, sedation.

EENT: visual disturbances.

CV: **MYOCARDITIS**, hypotension, tachycardia, ECG changes, hypertension.

GI: constipation, abdominal discomfort, dry mouth, increased salivation, nausea, vomiting.

Derm: rash, sweating.

Endo: hyperglycemia.

Hemat: **AGRANULOCYTOSIS**, **LEUKOPENIA**.

Neuro: extrapyramidal reactions.

Misc: fever, weight gain.

INTERACTIONS

Drug–Drug:

- ↑ anticholinergic effects with other agents having anticholinergic properties, including antihistamines, quinidine, disopyramide, and antidepressants
- Concurrent use with SSRI antidepressants ↑ blood levels and risk of toxicity (especially fluvoxamine)
- ↑ CNS depression with alcohol, antidepressants, antihistamines, opioid analgesics, or sedative/hypnotics
- ↑ hypotension with nitrates, acute ingestion of alcohol, or antihypertensives
- ↑ risk of bone marrow suppression with antihypertensives or radiation therapy
- Use with lithium ↑ risk of adverse CNS reactions, including seizures.

Drug–Natural:

- Caffeine-containing herbs (cola nut, tea, coffee) may increase serum levels and side effects
- St. John's wort may decrease blood levels and efficacy.

ROUTE AND DOSAGE

- **PO (Adults):** 25 mg 1–2 times daily initially; increase by 25–50 mg/day over a period of 2 wk up to target dose of 300–450 mg/day. May increase by up to 100 mg/day once or twice further (not to exceed 900 mg/day). Treatment should be continued for at least 2 yr in patients with suicidal behavior.

AVAILABILITY

- **Tablets:** 25 mg^{Rx}, 100 mg^{Rx}

TIME/ACTION PROFILE (antipsychotic effect)

	ONSET	PEAK	DURATION
PO	unknown	wks	4–12 hr

NURSING IMPLICATIONS

ASSESSMENT

- **Monitor patient's mental status (delusions, hallucinations, and behavior) before and periodically throughout therapy.**
- Monitor blood pressure (sitting, standing, lying) and pulse rate before and frequently during initial dosage titration.
- Observe patient carefully when administering medication to ensure that medication is actually taken and not hoarded.

Continued on the following page

- Monitor for signs of myocarditis (unexplained fatigue, dyspnea, tachypnea, fever, chest pain, palpitations, other signs and symptoms of heart failure, ECG changes, such as ST-T wave abnormalities, arrhythmia, or tachycardia during first month of therapy). If these occur, clozapine should be discontinued and not restarted.
- Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill-rolling motion, mask-like face, shuffling gait, rigidity, tremors and dystonic muscle spasms, twisting motions, twitching, inability to move eyes, weakness of arms or legs) every 2 mo during therapy and 8–12 wk after therapy has been discontinued. Notify physician or other health care professional if these symptoms occur; reduction in dose or discontinuation of medication may be necessary. Trihexyphenidyl or diphenhydramine may be used to control these symptoms.
- Although not yet reported for clozapine, monitor for possible tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities, lip smacking or puckering, puffing of cheeks, uncontrolled chewing, rapid or worm-like movements of tongue). Report these symptoms immediately; may be irreversible.
- Monitor frequency and consistency of bowel movements. Increasing bulk and fluids in the diet may help to minimize constipation.
- Clozapine lowers the seizure threshold. Institute seizure precautions for patients with history of seizure disorder.
- Transient fevers may occur, especially during first 3 wk of therapy. Fever is usually self-limiting but may require discontinuation of medication. Also, monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, seizures, diaphoresis, hypertension or hypotension, pallor, tiredness). Notify physician immediately if these symptoms occur.
- **Lab Test Considerations:** Monitor WBC and differential count before initiation of therapy and WBC weekly for the first 6 months, then biweekly throughout therapy and weekly for 4 wk after discontinuation of clozapine. Because of the risk of agranulocytosis, clozapine is available only in a 1-wk supply through the Clozaril Patient Management System, which combines WBC testing, patient monitoring, and controlled distribution through participating pharmacies. If WBC is $<3,000 \text{ mm}^3$ or granulocyte count is $<1,500 \text{ mm}^3$, withhold clozapine, increase frequency of WBC monitoring according to management system guidelines, and monitor patient for signs and symptoms of infection.
- **Toxicity and Overdose:** Overdose is treated with activated charcoal and supportive therapy. Monitor patient for several days because of risk of delayed effects.
 - Avoid use of epinephrine and its derivatives when treating hypotension, and avoid quinidine and procainamide when treating arrhythmias.

POTENTIAL NURSING DIAGNOSES

- Violence, risk for other-directed (Indications).
- Thought process, disturbed (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- PO: Administer capsules with food or milk to decrease gastric irritation.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed. Patients on long-term therapy may need to discontinue gradually over 1–2 wk.
- Inform patient of possibility of extrapyramidal symptoms. Instruct patient to report these symptoms immediately.
- Advise patient to change positions slowly to minimize orthostatic hypotension.

Continued on the following page

- May cause seizures and drowsiness. Caution patient to avoid driving or other activities requiring alertness while taking clozapine.
- Caution patient to avoid concurrent use of alcohol, other CNS depressants, and OTC medications without consulting health care professional.
- Instruct patient to use frequent mouth rinses, good oral hygiene, and sugarless gum or candy to minimize dry mouth.
- Advise patient to notify health care professional of medication regimen before treatment or surgery.
- Instruct patient to notify health care professional promptly if unexplained fatigue, dyspnea, tachypnea, chest pain, palpitations, sore throat, fever, lethargy, weakness, malaise, or flu-like symptoms occur or if pregnancy is planned or suspected.
- Advise patient of need for continued medical follow-up for psychotherapy, eye exams, and laboratory tests.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Diminished schizophrenic behavior
- Diminished suicidal behavior.

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dextroamphetamine

(dex-troe-am-fet-a-meen)

Dexedrine, Dextrostat

CLASSIFICATION(S):

Therapeutic: central nervous system stimulants

Pharmacologic: amphetamines

Schedule II

Pregnancy Category C

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INDICATIONS

- Narcolepsy
- Adjunct management of ADHD.

ACTION

- Produces CNS stimulation by releasing norepinephrine from nerve endings. Pharmacologic effects:
 - CNS and respiratory stimulation
 - Vasoconstriction
 - Mydriasis (pupillary dilation)
 - Contraction of the urinary bladder sphincter.
- **Therapeutic Effects:**
 - Increased motor activity and mental alertness and decreased fatigue in narcoleptic patients
 - Increased attention span in ADHD.

PHARMACOKINETICS

Absorption: Well absorbed.

Distribution: Widely distributed; high concentrations in brain and CSF. Crosses the placenta; enters breast milk; potentially embryotoxic.

Metabolism and Excretion: Some metabolism by the liver. Urinary excretion is pH-dependent. Alkaline urine promotes reabsorption and prolongs action.

Half-life: 10–12 hr (6.8 hr in children).

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Pregnancy or lactation
- Hyperexcitable states, including hyperthyroidism
- Psychotic personalities
- Suicidal or homicidal tendencies
- Glaucoma
- Some products contain tartrazine and should be avoided in patients with known hypersensitivity.

Use Cautiously in:

- Cardiovascular disease
- Hypertension
- Diabetes mellitus
- History of substance abuse
- Elderly/ debilitated patients

Continued on the following page

- Continual use (may produce psychological dependence or physical addiction).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: hyperactivity, insomnia, restlessness, tremor, depression, dizziness, headache, irritability.

CV: palpitations, tachycardia, arrhythmias, hypertension, hypotension.

GI: anorexia, constipation, cramps, diarrhea, dry mouth, metallic taste, nausea, vomiting.

GU: impotence, increased libido.

Derm: urticaria.

Misc: physical dependence, psychological dependence.

INTERACTIONS

Drug-Drug:

- ↑ adrenergic effects with other adrenergics
- Use with MAO inhibitors can result in hypertensive crisis
- Alkalinizing the urine (sodium bicarbonate, acetazolamide) prolongs effect
- Acidification of urine (ammonium chloride, large doses of ascorbic acid) ↑ effect
- Phenothiazines may decrease the effect of dextroamphetamine
- May antagonize the response to antihypertensives
- ↑ risk of cardiovascular side effects with beta blockers or tricyclic antidepressants.

Drug-Natural:

- Use with caffeine-containing herbs (guarana, tea, coffee) ↑ stimulant effect.

ROUTE AND DOSAGE

Attention-Deficit Hyperactivity Disorder

- PO (Adults): 5–60 mg/day in divided doses. Sustained-release capsules should not be used as initial therapy.
- PO (Children ≥6 yr): 5 mg 1–2 times daily, increase by 5 mg at weekly intervals. Sustained-release capsules should not be used as initial therapy.
- PO (Children 3–5 yr): 2.5 mg/day, increase by 2.5 mg at weekly intervals.

Narcolepsy

- PO (Adults): 5–60 mg/day single dose or in divided doses. Sustained-release capsules should not be used as initial therapy.
- PO (Children ≥12 yr): 10 mg/day, increase by 10 mg/day at weekly intervals until response is obtained or adult dose is reached.
- PO (Children 6–12 yr): 5 mg/day, increase by 5 mg/day at weekly intervals until response is obtained or adult dose is reached.

AVAILABILITY

- **Tablets:** 5 mg^{Rx}
- **Cost:** 5 mg \$35.23/100
- **Sustained-release capsules:** 5 mg^{Rx}, 10 mg^{Rx}, 15 mg^{Rx}

TIME/ACTION PROFILE (CNS stimulation)

	ONSET	PEAK	DURATION
PO	1–2 hr	unknown	2–10 hr
PO-ER	unknown	unknown	up to 24 hr

Continued on the following page

Psychotropic Drugs: *dextroamphetamine* (Cont'd)

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Monitor blood pressure, pulse, and respiration before administering and periodically during therapy.
- **ADHD:** Monitor weight biweekly and inform physician of significant loss. Monitor height periodically in children; report growth inhibition.
- Assess attention span, impulse control, motor and vocal tics, and interactions with others.
- **Narcolepsy:** Observe and document frequency of narcoleptic episodes.
 - May produce a false sense of euphoria and well-being. Provide frequent rest periods and observe patient for rebound depression after the effects of the medication have worn off.
 - Has high dependence and abuse potential. Tolerance to medication occurs rapidly; do not increase dose.
- **Lab Test Considerations:** May interfere with urinary steroid determinations.
 - May cause ↑ plasma corticosteroid concentrations; greatest in evening.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse Adderall (*dextroamphetamine/amphetamine*) with Inderal (*propranolol*).
 - Therapy should utilize the lowest effective dose.
- **PO:** Sustained-release capsules should be swallowed whole; do not break, crush, or chew.

- **ADHD:** When symptoms are controlled, dose reduction or interruption of therapy may be possible during summer months or may be given on each of the 5 school days with medication-free weekends and holidays.

PATIENT/FAMILY TEACHING

- **General:** Instruct patient to take medication at least 6 hr before bedtime to avoid sleep disturbances. Take missed doses as soon as remembered up to 6 hr before bedtime. Do not double doses. Instruct patient not to alter dose without consulting health care professional. Abrupt cessation of high doses may cause extreme fatigue and mental depression.
 - Inform patient that the effects of drug-induced dry mouth can be minimized by rinsing frequently with water or chewing sugarless gum or candies.
 - Advise patient to avoid the intake of large amounts of caffeine.
 - Medication may impair judgment. Advise patients to use caution when driving or during other activities requiring alertness.
 - Advise patient to notify health care professional if nervousness, restlessness, insomnia, dizziness, anorexia, or dry mouth becomes severe.
 - Inform patient that periodic holiday from the drug may be ordered to assess progress and decrease dependence.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Improved attention span. Therapy should be interrupted and need reassessed periodically
- Decrease in narcoleptic symptoms.

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dextroamphetamine/amphetamine

(dex-troe-am-fet-a-meen)

Dexedrine, Dextrostat

CLASSIFICATION(S):

Therapeutic: central nervous system stimulants

Pharmacologic: amphetamines

Schedule II

Pregnancy Category C

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Absorption: Well absorbed.

Distribution: Widely distributed; high concentrations in brain and CSF. Crosses the placenta; enters breast milk; potentially embryotoxic.

Metabolism and Excretion: Some metabolism by the liver. Urinary excretion is pH-dependent. Alkaline urine promotes reabsorption and prolongs action.

Half-life: 10–12 hr (6.8 hr in children).

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Pregnancy or lactation
- Hyperexcitable states, including hyperthyroidism
- Psychotic personalities
- Suicidal or homicidal tendencies
- Glaucoma
- Some products contain tartrazine and should be avoided in patients with known hypersensitivity.

Use Cautiously in:

- Cardiovascular disease
- Hypertension
- Diabetes mellitus
- History of substance abuse
- Elderly/ debilitated patients

Continued on the following page

- Continual use (may produce psychological dependence or physical addiction).

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- PO (Children 6–12 yr): 5 mg/day, increase by 5 mg/day at weekly intervals until response is obtained or adult dose is reached.

AVAILABILITY

- **Tablets:** 5 mg^{Rx}
- **Cost:** 5 mg \$35.23/100
- **Sustained-release capsules:** 5 mg^{Rx}, 10 mg^{Rx}, 15 mg^{Rx}

TIME/ACTION PROFILE (CNS stimulation)

	ONSET	PEAK	DURATION
PO	1–2 hr	unknown	2–10 hr
PO-ER	unknown	unknown	up to 24 hr

Continued on the following page

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Monitor blood pressure, pulse, and respiration before administering and periodically during therapy.
- **ADHD:** Monitor weight biweekly and inform physician of significant loss. Monitor height periodically in children; report growth inhibition.
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 - May produce a false sense of euphoria and well-being. Provide frequent rest periods and observe patient for rebound depression after the effects of the medication have worn off.
 - Has high dependence and abuse potential. Tolerance to medication occurs rapidly; do not increase dose.
- **Lab Test Considerations:** May interfere with urinary steroid determinations.
 - May cause ↑ plasma corticosteroid concentrations; greatest in evening.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse Adderall (dextroamphetamine/amphetamine) with Inderal (propranolol).
 - Therapy should utilize the lowest effective dose.
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 - Medication may impair judgment. Advise patients to use caution when driving or during other activities requiring alertness.
 - Advise patient to notify health care professional if nervousness, restlessness, insomnia, dizziness, anorexia, or dry mouth becomes severe.
 - Inform patient that periodic holiday from the drug may be ordered to assess progress and decrease dependence.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Improved attention span. Therapy should be interrupted and need reassessed periodically
- Decrease in narcoleptic symptoms.

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diazepam

(dye-az-e-pam)

Apo-Diazepam, Diastat, Diazemuls, Dizac, D-Val, Novodipam, PMS-Diazepam, Valium, Vivil

CLASSIFICATION(S):

Therapeutic: antianxiety agents, anticonvulsants, sedative/hypnotics, skeletal muscle relaxants (centrally acting)

Pharmacologic: benzodiazepines

Schedule IV

Pregnancy Category D

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INDICATIONS

- Adjunct in the management of:
 - Anxiety
 - Preoperative sedation
 - Conscious sedation
- Provides light anesthesia and anterograde amnesia
- Treatment of status epilepticus/uncontrolled seizures
- Skeletal muscle relaxant
- Management of the symptoms of alcohol withdrawal.

ACTION

- Depresses the CNS, probably by potentiating GABA, an inhibitory neurotransmitter
- Produces skeletal muscle relaxation by inhibiting spinal polysynaptic afferent pathways
- Has anticonvulsant properties due to enhanced presynaptic inhibition.
- **Therapeutic Effects:**
 - Relief of anxiety
 - Sedation
 - Amnesia
 - Skeletal muscle relaxation
 - Decreased seizure activity.

PHARMACOKINETICS

Absorption: Rapidly absorbed from the GI tract. Absorption from IM sites may be slow and unpredictable. Well absorbed (90%) from rectal mucosa.

Distribution: Widely distributed. Crosses the blood-brain barrier. Crosses the placenta; enters breast milk.

Metabolism and Excretion: Highly metabolized by the liver. Some products of metabolism are active as CNS depressants.

Half-life: 20–70 hr (up to 200 hr for metabolites).

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Cross-sensitivity with other benzodiazepines may occur
- Comatose patients
- Pre-existing CNS depression
- Uncontrolled severe pain
- Narrow-angle glaucoma

Continued on the following page

Psychotropic Drugs: *diazepam* (Cont'd)

- Pregnancy or lactation
- Some products contain alcohol, propylene glycol, or tartrazine and should be avoided in patients with known hypersensitivity or intolerance.

Use Cautiously in:

- Hepatic dysfunction
- Severe renal impairment
- History of suicide attempt or drug dependence
- Geriatric or debilitated patients (dosage reduction required)
- Children (dosage should not exceed 0.25 mg/kg).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, drowsiness, lethargy, depression, hangover, headache, paradoxical excitation.

EENT: blurred vision.

Resp: respiratory depression.

CV: hypotension (IV only).

GI: constipation, diarrhea, nausea, vomiting.

Derm: rashes.

Local: pain (IM), phlebitis (IV), venous thrombosis.

Misc: physical dependence, psychological dependence, tolerance.

INTERACTIONS

Drug–Drug:

- Alcohol, antidepressants, antihistamines, and opioid analgesics—concurrent use results in additive CNS depression

- Cimetidine, hormonal contraceptives, disulfiram, fluoxetine, isoniazid, ketoconazole, metoprolol, propoxyphene, propranolol, or valproic acid may decrease the metabolism of diazepam, enhancing its actions
- May decrease the efficacy of levodopa
- Rifampin or barbiturates may increase the metabolism and decrease effectiveness of diazepam
- Sedative effects may be decreased by theophylline.

Drug–Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can increase CNS depression.

ROUTE AND DOSAGE

Antianxiety/Anticonvulsant

- PO (Adults): 2–10 mg 2–4 times daily.
- PO (Children >6 mo): 1–2.5 mg 3–4 times daily; may be increased.

Pre cardioversion

- IV (Adults): 5–15 mg 5–10 min pre cardioversion.

Pre-endoscopy

- IV (Adults): 2.5–20 mg.
- IM (Adults): 5–10 mg 30 min pre-endoscopy.

Status Epilepticus/Acute Seizure Activity

- IV (Adults): 5–10 mg, may repeat q 10–15 min to a total of 30 mg, may repeat regimen again in 2–4 hr (IM route may be used if IV route unavailable); larger doses may be required.
- IM, IV (Children ≥5 yr): 1 mg q 2–5 min to a total of 10 mg, repeat q 2–4 hr.
- IM, IV (Children 1 mo–5 yr): 0.2–0.5 mg q 2–5 min to maximum of 5 mg.
- Rect (Adults): 0.2 mg/kg; may repeat 4–12 hr later.
- Rect (Children 6–11 yr): 0.3 mg/kg; may repeat 4–12 hr later.
- Rect (Children 2–5 yr): 0.5 mg/kg; may repeat 4–12 hr later.

Continued on the following page

Skeletal Muscle Relaxation

- PO (Adults): 2–10 mg 3–4 times daily or 15–30 mg of extended-release form once daily.
- PO (Geriatric Patients or Debilitated Patients): 2–2.5 mg 1–2 times daily initially.
- PO (Children): 1–2.5 mg 3–4 times daily.
- IM, IV (Adults): 5–10 mg; may repeat in 2–4 hr (larger doses may be required for tetanus).
- IM, IV (Geriatric Patients or Debilitated Patients): 2–5 mg; may repeat in 2–4 hr (larger doses may be required for tetanus).
- IM, IV (Children ≥5 yr): *Tetanus*—5–10 mg q 3–4 hr.
- IM, IV (Children >1 mo): *Tetanus*—1–2 mg q 3–4 hr.

Alcohol Withdrawal

- PO (Adults): 10 mg 3–4 times in first 24 hr, decrease to 5 mg 3–4 times daily.
- IM, IV (Adults): 10 mg initially, then 5–10 mg in 3–4 hr as needed; larger or more frequent doses have been used.

Psychoneurotic Reactions

- IM, IV (Adults): 2–10 mg, may be repeated in 3–4 hr.

AVAILABILITY

- **Tablets:** 2 mg^{Rx}, 5 mg^{Rx}, 10 mg^{Rx}
- **Cost:** *Valium*—2 mg \$49.84/100, *generic*—\$6.99/100; *Valium*—5 mg \$77.83/100, *generic*—\$10.84/100; *Valium*—10 mg \$120.12/100, *generic*—\$19.83/100.
- **Oral solution:** 5 mg/ml (*Intensol*)^{Rx}, 5 mg/5 ml^{Rx}
- **Injection:** 5 mg/ml (contains 10% alcohol and 40% propylene glycol)^{Rx}
- **Rectal gel delivery system:** 2.5 mg^{Rx}, 10 mg^{Rx}, 15 mg^{Rx}, 20 mg^{Rx}
- **Sterile emulsion for injection:** 5 mg/ml (contains egg phospholipids and soybean oil)^{Rx}.

TIME/ACTION PROFILE (sedation)

	ONSET	PEAK	DURATION
PO	30–60 min	1–2 hr	up to 24 hr
IM	within 20 min	0.5–1.5 hr	unknown
IV	1–5 min	15–30 min	15–60 min [†]
Rectal	unknown	1–2 hr	4–12 hr

[†]In status epilepticus, anticonvulsant duration is 15–20 min.

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Monitor blood pressure, pulse, and respiratory rate prior to and periodically throughout therapy and frequently during IV therapy.
 - Assess IV site frequently during administration; diazepam may cause phlebitis and venous thrombosis.
 - Prolonged high-dose therapy may lead to psychological or physical dependence. Restrict amount of drug available to patient. Observe depressed patients closely for suicidal tendencies.
- **Anxiety:** Assess degree of anxiety and level of sedation (ataxia, dizziness, slurred speech) prior to and periodically throughout therapy.
- **Seizures:** Observe and record intensity, duration, and location of seizure activity. The initial dose of diazepam offers seizure control for 15–20 min after administration. Institute seizure precautions.
- **Muscle Spasms:** Assess muscle spasm, associated pain, and limitation of movement prior to and throughout therapy.
- **Alcohol Withdrawal:** Assess patient experiencing alcohol withdrawal for tremors, agitation, delirium, and hallucinations. Protect patient from injury.

Continued on the following page

- **Lab Test Considerations:** Hepatic and renal function and CBC should be evaluated periodically throughout course of prolonged therapy.

POTENTIAL NURSING DIAGNOSES

- Anxiety (Indications).
- Mobility, impaired physical (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse diazepam with lorazepam or ditropan.
 - Patient should be kept on bedrest and observed for at least 3 hr following parenteral administration.
 - If opioid analgesics are used concurrently with parenteral diazepam, decrease opioid dose by 1/3 and titrate dose to effect.
- **PO:** Tablets may be crushed and taken with food or water if patient has difficulty swallowing. **Swallow sustained-release capsules whole; do not crush, break, or chew.**
 - Mix Intensol preparation with liquid or semisolid food such as water, juices, soda, applesauce, or pudding. Administer entire amount immediately. Do not store.
- **IM:** IM injections are painful and erratically absorbed. If IM route is used, inject deeply into deltoid muscle for maximum absorption.
- **IV:** Resuscitation equipment should be available when diazepam is administered IV.
- **Direct IV:** For IV administration do not dilute or mix with any other drug. If direct IV push is not feasible, administer IV push into tubing as close to insertion site as possible. Continuous infusion is not recommended because of precipitation in IV fluids and absorption of diazepam into infusion bags and tubing. Injection may cause burning and venous irritation; avoid small veins.
- **Rate:** Administer slowly at a rate of 5 mg over at least 1 min. Infants and children should receive total dose over a mini-

mum of 3–5 min. Rapid injection may cause apnea, hypotension, bradycardia, or cardiac arrest.

- **Syringe Compatibility:** ♦ cimetidine.
- **Syringe Incompatibility:** ♦ doxapram ♦ glycopyrrolate ♦ heparin ♦ hydromorphone ♦ nalbuphine ♦ sufentanil.
- **Y-Site Compatibility:** ♦ dobutamine ♦ nafcillin ♦ quinidine gluconate ♦ sufentanil.
- **Y-Site Incompatibility:** ♦ amphotericin B cholesteryl sulfate ♦ atracurium ♦ cefepime ♦ diltiazem ♦ fluconazole ♦ foscarnet ♦ gatifloxacin ♦ heparin ♦ hydromorphone ♦ linezolid ♦ meropenem ♦ pancuronium ♦ potassium chloride ♦ propofol ♦ vecuronium ♦ vitamin B complex with C.
- **Sterile emulsion for injection (Dizac):** For IV use only. Use strict aseptic technique. Do not dilute, ampule is for single use; discard unused portion. Do not use filters >5 microns; restricts flow and causes breakdown of emulsion. Administer within 6 hr of drawing up, flush line at end of administration and after 6 hr to remove residual.
- **Incompatibility:** ♦ glycopyrrolate ♦ morphine
- **Rect:** Do not repeat *Diastat* rectal dose more than 5 times/mo or 1 episode every 5 days. Round dose up to next available dose unit.
 - Diazepam injection has been used for rectal administration. Instill via catheter or cannula fitted to the syringe or directly from a 1-ml syringe inserted 4–5 cm into the rectum. A dilution of diazepam injection with propylene glycol containing 1 mg/ml has also been used.
 - Do not dilute with other solutions, IV fluids, or medications.

PATIENT/FAMILY TEACHING

- **General:** Instruct patient to take medication exactly as directed and not to take more than prescribed or increase dose if less effective after a few weeks without checking with health care professional. Abrupt withdrawal of diazepam may cause

Continued on the following page

insomnia, unusual irritability or nervousness, and seizures. Advise patient that sharing of this medication may be dangerous.

- Medication may cause drowsiness, clumsiness, or unsteadiness. Advise patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Advise patient to notify health care professional if pregnancy is suspected or planned.
- Emphasize the importance of follow-up examinations to determine effectiveness of the medication.
- **Seizures:** Patients on anticonvulsant therapy should carry identification describing disease process and medication regimen at all times.
 - Carefully review patient/caregiver package insert for Diastat rectal gel with caregiver prior to administration.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in anxiety level. Full therapeutic antianxiety effects occur after 1–2 wk of therapy
- Decreased recall of surgical or diagnostic procedures
- Control of seizures
- Decrease in muscle spasms
- Decreased tremulousness and more rational ideation when used for alcohol withdrawal.

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doxepin

(dox-e-pin)

Sinequan, Triadapin, Zonalon

CLASSIFICATION(S):

Therapeutic: *antianxiety agents, antidepressants, antihistamines (topical)*

Pharmacologic: *tricyclic antidepressants*

Pregnancy Category UK

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INDICATIONS

- **PO:** Management of various forms of endogenous depression (with psychotherapy)
- Treatment of anxiety
- **Topical:** Short-term control of pruritus associated with:
 - Eczematous dermatitis
 - Lichen simplex chronicus.
- **Unlabelled Uses:**
 - **PO :** Management of chronic pain syndromes.
 - Management of pruritus.

ACTION

- **PO:** Prevents the reuptake of norepinephrine and serotonin by presynaptic neurons; resultant accumulation of neurotransmitters potentiates their activity
- Also possesses significant anticholinergic properties
- **Topical:** Antipruritic action due to antihistaminic properties.
- **Therapeutic Effects:**
 - **PO :** Relief of depression
 - Decreased anxiety
 - **Topical:** Decreased pruritus.

PHARMACOKINETICS

Absorption: Well absorbed from the GI tract, although much is metabolized on first pass through the liver. Some systemic absorption follows topical application.

Distribution: Widely distributed. Enters breast milk; probably crosses the placenta.

Metabolism and Excretion: Metabolized by the liver. Some conversion to active antidepressant compound. May re-enter gastric juice via secretion from enterohepatic circulation, where more absorption may occur.

Half-life: 8–25 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Some products contain bisulfites and should be avoided in patients with known intolerance
- Untreated narrow-angle glaucoma
- Period immediately after myocardial infarction
- Pregnancy or lactation.

Continued on the following page

Use Cautiously in:

- Geriatric patients (initial dosage reduction recommended)
- Pre-existing cardiovascular disease (increased risk of adverse reactions)
- Prostatic enlargement (more susceptible to urinary retention)
- Seizures.

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: fatigue, sedation, agitation, confusion, hallucinations.

EENT: blurred vision, increased intraocular pressure.

CV: hypotension, arrhythmias, ECG abnormalities.

GI: constipation, dry mouth, hepatitis, increased appetite, nausea, paralytic ileus.

GU: urinary retention.

Derm: photosensitivity, rashes.

Hemat: blood dyscrasias.

Misc: hypersensitivity reactions.

INTERACTIONS

Apply to both topical and oral use.

Drug–Drug:

- Doxepin is metabolized in the liver by the cytochrome P450 2D6 enzyme and its action may be affected by drugs that compete for metabolism by this enzyme including other antidepressants, phenothiazines, carbamazepine, class 1C antiarrhythmics (propafenone, flecainide); when used concurrently, dosage reduction of one or the other or both may be necessary. Concurrent use of other drugs that inhibit the activity of the enzyme, including cimetidine, quinidine,

amiodarone, and ritonavir, may result in increased effects of doxepin

- May cause hypotension, tachycardia, and potentially fatal reactions when used with **MAO inhibitors** (avoid concurrent use—discontinue 2 wk prior to doxepin)
- Concurrent use with **SSRI antidepressants** may result in increased toxicity and should be avoided (fluoxetine should be stopped 5 wk before)
- May prevent the therapeutic response to **guanethidine**
- Concurrent use with **clonidine** may result in hypertensive crisis and should be avoided
- Concurrent use with **levodopa** may result in delayed/decreased absorption of levodopa or hypertension
- Blood levels and effects may be decreased by **rifamycins**
- Concurrent use with **sparfloxacin** increases the risk of adverse cardiovascular reactions
- Additive CNS depression with other CNS depressants including **alcohol**, **antihistamines**, **clonidine**, **opioid analgesics**, and **sedative/hypnotics**
- **Barbiturates** may alter blood levels and effects
- **Adrenergic** and **anticholinergic** side effects may be additive with other agents having these properties
- **Phenothiazines** or **oral contraceptives** increase levels and may cause toxicity
- **Smoking** may increase metabolism and alter effects.

Drug–Natural:

- Concomitant use of **kava**, **valerian**, **skullcap**, **chamomile**, or **hops** can increase CNS depression
- Increased anticholinergic effects with **angel's trumpet**, **Jimson weed**, and **scopolia**.

ROUTE AND DOSAGE

- **PO (Adults):** *Antidepressant/anti-anxiety*—25 mg 3 times daily, may be increased as needed (up to 150 mg/day in outpatients or 300 mg/day in inpatients; some patients may

Continued on the following page

require only 25–50 mg/day). Once stabilized, entire daily dose may be given at bedtime. *Antipruritic*—10 mg at bedtime initially, may be increased up to 25 mg.

- **PO (Geriatric Patients):** *Antidepressant*—25–50 mg/day initially, may be increased as needed.
- **Topical (Adults):** Apply 4 times daily (wait 3–4 hr between applications) for up to 8 days.

AVAILABILITY

- **Capsules:** 10 mg^{Rx}, 25 mg^{Rx}, 50 mg^{Rx}, 75 mg^{Rx}, 100 mg^{Rx}, 150 mg^{Rx}.
- **Cost:** *Sinequan*—10 mg \$39.42/100, 25 mg \$55.83/100, 50 mg \$77.10/100, 75 mg \$121.83/100, 100 mg \$133.21/100, 150 mg \$272.80/100; *generic*—10 mg \$15.83/100, 25 mg \$19.43/100, 50 mg \$33.20/100, 75 mg \$40.24/100, 100 mg \$45.82/100, 150 mg \$62.10/100.
- **Oral concentrate:** 10 mg/ml^{Rx}
- **Topical cream:** 5%^{Rx}.

TIME/ACTION PROFILE (antidepressant activity)

	ONSET	PEAK	DURATION
PO	2–3 wk	up to 6 wk	days–weeks

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Monitor blood pressure and pulse rate prior to and during initial therapy. Patients taking high doses or with a history of cardiovascular disease should have ECG monitored prior to and periodically throughout therapy.
- **Depression:** Assess mental status frequently. Confusion, agitation, and hallucinations may occur during initiation of

therapy and may require dosage reduction. Monitor mood changes. Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.

- **Anxiety:** Assess degree and manifestations of anxiety prior to and throughout therapy.
- **Pain:** Assess the type, location, and severity of pain prior to and periodically throughout therapy.
- **Topical:** Assess pruritic area prior to and periodically throughout therapy.
- **Lab Test Considerations:** Monitor WBC and differential blood counts, hepatic function, and serum glucose periodically. May cause elevated serum bilirubin and alkaline phosphatase levels. May cause bone marrow depression. Serum glucose may be increased or decreased.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** **Do not confuse doxepin with doxycycline.**
 - May be given as a single dose at bedtime to minimize sedation during the day. Dose increases should be made at bedtime because of sedation. Dose titration is a slow process; may take weeks to months.
- **PO:** Administer medication with or immediately following a meal to minimize gastric irritation. Capsules may be opened and mixed with foods or fluids if patient has difficulty swallowing.
 - Oral concentrate must be diluted in at least 120 ml of water, milk, or fruit juice. Do not mix with carbonated beverages or grape juice. Use calibrated measuring device to ensure accurate amount.
- **Topical:** Apply thin film of doxepin cream only to affected areas, and rub in gently. Apply only to affected skin; not for ophthalmic, oral, or intravaginal use.

Continued on the following page

PATIENT/FAMILY TEACHING

- **General:** Inform patient that systemic side effects may occur with oral or topical use.
 - May cause drowsiness and blurred vision. Caution patient to avoid driving and other activities requiring alertness until response to the medication is known.
 - Orthostatic hypotension, sedation, and confusion are common during early therapy, especially in geriatric patients. Protect patient from falls and advise patient to change positions slowly.
 - Advise patient to avoid alcohol or other CNS depressant drugs during and for at least 3–7 days after therapy has been discontinued.
 - Instruct patient to notify health care professional if urinary retention occurs or if dry mouth or constipation persists. Sugarless candy or gum may diminish dry mouth, and an increase in fluid intake or bulk may prevent constipation. If symptoms persist, dosage reduction or discontinuation may be necessary. Consult health care professional if dry mouth persists for more than 2 wk.
 - Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- **PO:** Instruct patient to take medication exactly as directed. If a dose is missed, take as soon as possible unless almost time for next dose; if regimen is a single dose at bedtime, do not take in the morning because of side effects. Advise patient that drug effects may not be noticed for at least 2 wk. Abrupt discontinuation may cause nausea, vomiting, diarrhea, headache, trouble sleeping with vivid dreams, and irritability.
 - Caution patient to use sunscreen and protective clothing to prevent photosensitivity reactions.
 - Inform patient of need to monitor dietary intake. Increase in appetite is possible and may lead to undesired weight gain.

- Therapy for depression is usually prolonged. Emphasize the importance of follow-up exams to monitor effectiveness and side effects.
- **Topical:** Instruct patient to apply medication exactly as directed; do not use more medication than directed, apply to a larger area than directed, use more often than directed, or use longer than 8 days.
 - Inform patient that topical preparation may cause burning, stinging, swelling, increased itching, or worsening of eczema. Notify health care professional if these symptoms become bothersome.
 - Caution patient not to use occlusive dressings; may increase systemic absorption.
 - Advise patient to notify health care professional if excessive drowsiness occurs with topical application. Number of applications per day, amount of cream applied, or area of application may be reduced. May require discontinuation of therapy.

EVALUATION**Effectiveness of therapy can be demonstrated by:**

- Increased sense of well-being
 - Renewed interest in surroundings
 - Increased appetite
 - Improved energy level
 - Improved sleep
- Decrease in anxiety
- Decrease in chronic pain. Patients may require 2–6 wk of oral therapy before full therapeutic effects of medication are evident
- Decrease in pruritus associated with eczema.

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fluoxetine

(floo-ox-uh-teen)

Prozac, Prozac Weekly, Sarafem

CLASSIFICATION(S):

Therapeutic: antidepressants

Pharmacologic: selective serotonin reuptake inhibitors (SSRIs)

Pregnancy Category B

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INDICATIONS

- Various forms of depression, often in conjunction with psychotherapy (including depression in geriatric patients)
- OCD
- Bulimia nervosa.
- Panic disorder
- **Sarafem:** Management of premenstrual dysphoric disorder (PMDD).
- **Unlabelled Uses:**
 - Anorexia nervosa
 - ADHD
 - Diabetic neuropathy
 - Fibromyalgia
 - Obesity
 - Raynaud's phenomenon.

ACTION

- Selectively inhibits the reuptake of serotonin in the CNS.
- **Therapeutic Effects:**
 - Antidepressant action.
 - Decreased behaviors associated with
 - panic disorder
 - bulimia
 - Decreased mood alterations associated with PMDD

PHARMACOKINETICS

Absorption: Well absorbed after oral administration.

Distribution: Crosses the blood-brain barrier.

Protein Binding: 94.5%.

Metabolism and Excretion: Converted by the liver to norfluoxetine, another antidepressant compound; fluoxetine and norfluoxetine are mostly metabolized by the liver; 12% excreted by kidneys as unchanged fluoxetine, 7% as unchanged norfluoxetine.

Half-life: 1–3 days (norfluoxetine 5–7 days).

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Concurrent use or use within 14 days of discontinuing MAO inhibitors (fluoxetine should be discontinued 5 weeks before MAO therapy is initiated)

Use Cautiously in:

- Severe hepatic or renal impairment (lower/less frequent dose may be necessary)

Continued on the following page

- History of seizures
- Debilitated patients (↑ risk of seizures)
- Diabetes mellitus
- Patients with concurrent chronic illness, or multiple drug therapy (dosage adjustments may be necessary)
- Patients with impaired hepatic function (lower doses/ increased dosing interval may be necessary)
- Pregnancy or lactation (although safety not established, has been used without harm during pregnancy).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **SEIZURES**, anxiety, drowsiness, headache, insomnia, nervousness, abnormal dreams, dizziness, fatigue, hypomania, mania, weakness.

EENT: stuffy nose, visual disturbances.

Resp: cough.

CV: chest pain, palpitations.

GI: diarrhea, abdominal pain, abnormal taste, anorexia, constipation, dry mouth, dyspepsia, nausea, vomiting, weight loss.

GU: sexual dysfunction, urinary frequency.

Derm: excessive sweating, pruritus, erythema nodosum, flushing, rashes.

Endo: dysmenorrhea.

MS: arthralgia, back pain, myalgia.

Neuro: tremora.

Misc: allergic reactions, fever, flu-like syndrome, hot flashes, sensitivity reaction.

INTERACTIONS

Drug–Drug:

- **Discontinue use of MAO inhibitors** for 14 days before fluoxetine therapy; combined therapy may result in confusion, agitation, seizures, hypertension, and hyperpyrexia (serotonin syndrome). Fluoxetine should be discontinued for at least 5 wk before MAO inhibitor therapy is initiated
- Inhibits the activity of cytochrome P450 2D6 enzyme in the liver and increases the effects of drugs metabolized by this enzyme system
- Medications that inhibit the P450 enzyme system (including ritonavir, saquinavir, and efavirenz) may increase the risk of developing the serotonin syndrome). For concurrent use with ritonavir decrease fluoxetine dose by 70%; if initiating fluoxetine, start with 10 mg/day dose.
- Decreases metabolism and increases effects of **alprazolam** (decrease alprazolam dose by 50%)
- ↑ CNS depression with alcohol, antihistamines, other antidepressants, opioid analgesics, or sedative/hypnotics
- ↑ risk of side effects and adverse reactions with other antidepressants, tryptophan, risperidone, or phenothiazines
- May ↑ effectiveness/risk of toxicity from carbamazepine, clozapine, digoxin, haloperidol, phenytoin, lithium, or warfarin.
- May ↓ the effects of buspirone
- Cyproheptadine may decrease or reverse effects of fluoxetine
- May ↑ sensitivity to adrenergics and increase the risk of serotonin syndrome
- May alter the activity of other drugs that are highly bound to plasma proteins.

Drug–Natural:

- ↑ risk of serotonin syndrome with St. John's wort and SAME.

Continued on the following page

ROUTE AND DOSAGE

- **PO (Adults):** *Depression, OCD*—20 mg/day in the morning. After several weeks, may increase by 20 mg/day at weekly intervals. Doses greater than 20 mg/day should be given in 2 divided doses, in the morning and at noon (not to exceed 80 mg/day). Patients who have been stabilized on the 20 mg/day dose may be switched over to delayed-release capsules (Prozac Weekly) at dose of 90 mg weekly, initiated 7 days after the last 20 mg dose. *Panic disorder*—10 mg/day initially, may increase after one week to 20 mg/day (usual dose is 20 mg, but may be increased as needed/tolerated up to 60 mg/day). *Bulimia nervosa*—60 mg/day (may need to titrate up to dosage over several days). *PMDD*—20 mg/day (not to exceed 80 mg/day) or 20 mg/day starting 14 days prior to expected onset on menses, continued through first full day of menstruation, repeated with each cycle.
- **PO (Geriatric Patients):** *Depression*—10 mg/day in the morning initially, may be increased (not to exceed 60 mg/day).
- **PO (Children 7–17 yr):** *adolescents and higher weight children* —10 mg/day may be increased after 2 wk to 20 mg/day; additional increases may be made after several more weeks (range 20–60 mg/day); *lower weight children* —10 mg/day initially, may be increased after several more weeks (range 20–30 mg/day).

AVAILABILITY

- **Tablets:** 10 mg^{Rx}
- **Capsules:** 10 mg^{Rx}, 20 mg^{Rx}, 40 mg^{Rx}
- **Cost:** 10 mg \$324.71/100, 20 mg \$333.07/100, 40 mg \$199.85/30; *generic*—10 mg 260.09/100, 20 mg 266.40/100
- **Delayed-release capsules (Prozac Weekly):** 90 mg^{Rx}
- **Cost:** \$84.94/4 tabs
- **Oral solution (mint flavor):** 20 mg/5 ml^{Rx}
- **Cost:** \$147.91/120 ml; *generic*—\$118.00/120 ml.

TIME/ACTION PROFILE (antidepressant effect)

	ONSET	PEAK	DURATION
PO	1–4 wk	unknown	2 wk

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Monitor mood changes. Inform physician or other health care professional if patient demonstrates significant increase in anxiety, nervousness, or insomnia.
 - Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
 - Monitor appetite and nutritional intake. Weigh weekly. Notify physician or other health care professional of continued weight loss. Adjust diet as tolerated to support nutritional status.
 - Assess patient for sensitivity reaction (urticaria, fever, arthralgia, edema, carpal tunnel syndrome, rash, hives, lymphadenopathy, respiratory distress) and notify physician or other health care professional if present; symptoms usually resolve by stopping fluoxetine but may require administration of antihistamines or corticosteroids.
- **OCD:** Assess patient for frequency of obsessive-compulsive behaviors. Note degree to which these thoughts and behaviors interfere with daily functioning.
- **Bulimia Nervosa:** Assess frequency of binge eating and vomiting during therapy.
- **PMDD:** Monitor patient's mood prior to and periodically during therapy.

Continued on the following page

Psychotropic Drugs: *fluoxetine* (Cont'd)

- **Lab Test Considerations:** Monitor CBC and differential periodically during therapy. Notify physician or other health care professional if leukopenia, anemia, thrombocytopenia, or increased bleeding time occurs.
 - Proteinuria and mild ↑ in AST may occur during sensitivity reactions.
 - May cause ↑ in serum alkaline phosphatase, ALT, BUN, creatine phosphokinase; hypouricemia, hypocalcemia, hypoglycemia or hyperglycemia, and hyponatremia.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse Sarafem (fluoxetine) with Serophene (clomiphene).
- **PO:** Administer as a single dose in the morning. Some patients may require increased amounts, in divided doses, with a 2nd dose at noon.
 - May be administered with food to minimize GI irritation.

PATIENT/FAMILY TEACHING

- Instruct patient to take fluoxetine exactly as directed. If a dose is missed, omit and return to regular schedule. Do not double doses or discontinue without consulting health care professional; discontinuation may cause anxiety, insomnia, nervousness.
- May cause drowsiness, dizziness, impaired judgment, and blurred vision. Caution patient to avoid driving and other activities requiring alertness until response to the drug is known.

- Advise patient to avoid alcohol or other CNS depressant drugs during therapy and to consult health care professional before taking other medications or natural/herbal products with fluoxetine.
- Caution patient to change positions slowly to minimize dizziness.
- Inform patient that frequent mouth rinses, good oral hygiene, and sugarless gum or candy may minimize dry mouth. If dry mouth persists for more than 2 wk, consult health care professional regarding use of saliva substitute.
- Instruct female patients to inform health care professional if pregnancy is planned or suspected.
- Caution patient to wear protective clothing and use sunscreen to prevent photosensitivity reactions.
- Inform patient that medication may cause decreased libido.
- Advise patient to notify health care professional if symptoms of sensitivity reaction occur or if headache, nausea, anorexia, anxiety, or insomnia persists.
- Emphasize the importance of follow-up exams to monitor progress. Encourage patient participation in psychotherapy.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Increased sense of well-being
 - Renewed interest in surroundings. May require 1–4 wk of therapy to obtain antidepressant effects
- Decrease in obsessive-compulsive behaviors
- Decrease in binge eating and vomiting in patients with bulimia nervosa.
- Decreased incidence frequency of panic attacks.
- Decreased mood alterations associated with PMDD.

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fluphenazine

(floo-fen-a-zeen)

fluphenazine decanoate

Modecate, Modecate Concentrate, Prolixin Decanoate

fluphenazine enanthate

Moditen Enanthate, Prolixin Enanthate

fluphenazine hydrochloride

Apo-Fluphenazine, Moditen HCl, Moditen HCl-HP , Permitil, Prolixin

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pharmacologic: phenothiazines

Distribution: Widely distributed. Cross the blood-brain barrier. Cross the placenta; enter breast milk.

Protein Binding: $\geq 90\%$.

Metabolism and Excretion: Highly metabolized by the liver; undergo enterohepatic recirculation.

Half-life: *Fluphenazine hydrochloride*—4.7–15.3 hr; *fluphenazine enanthate*—3.7 days; *fluphenazine decanoate*—6.8–9.6 days.

Pregnancy Category C

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INDICATIONS

- Acute and chronic psychoses.

ACTION

- Alter the effects of dopamine in the CNS
- Possess anticholinergic and alpha-adrenergic blocking activity.
- **Therapeutic Effects:**
 - Diminished signs and symptoms of psychoses.

PHARMACOKINETICS

Absorption: Well absorbed after PO/IM administration. Decanoate and enanthate salts in sesame oil have delayed onset and prolonged action because of delayed release from oil vehicle and subsequent delayed release from fatty tissues.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Cross-sensitivity with other phenothiazines may exist
- Narrow-angle glaucoma
- Bone marrow depression
- Severe liver or cardiovascular disease
- Hypersensitivity to sesame oil (decanoate and enanthate salts)

Continued on the following page

- Some products contain alcohol or tartrazine and should be avoided in patients with known intolerance
- Concurrent pimozide.

Use Cautiously in:

- Geriatric or debilitated patients (initial dosage reduction may be necessary)
- Diabetes mellitus
- Respiratory disease
- Prostatic hypertrophy
- CNS tumors
- Epilepsy
- Intestinal obstruction
- Pregnancy or lactation (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: extrapyramidal reactions, sedation, tardive dyskinesia.

EENT: blurred vision, dry eyes, lens opacities.

CV: hypotension, tachycardia.

GI: anorexia, constipation, drug-induced hepatitis, dry mouth, ileus.

GU: urinary retention.

Derm: photosensitivity, pigment changes, rashes.

Endo: galactorrhea.

Hemat: **AGRANULOCYTOSIS**, leukopenia.

Misc: allergic reactions, hyperthermia.

INTERACTIONS**Drug-Drug:**

- Pimozide may have additive adverse cardiovascular effects (QT prolongation); concurrent use should be avoided

- Additive hypotension with **antihypertensives**
- Additive CNS depression with other CNS depressants, including alcohol, antidepressants, antihistamines, MAO inhibitors, opioids, sedative/hypnotics, or general anesthetics
- **Phenobarbital** may increase metabolism and decrease effectiveness
- Concurrent use with **lithium** may produce any of the following—decreased fluphenazine absorption, increased excretion of lithium, increased risk of extrapyramidal reactions, or masking of the early signs of lithium toxicity
- Concurrent **meperidine** may produce excess sedation and hypotension.
- **Aluminum-containing antacids** or **adsorbent antidiarrheals**, charcoal (**kaolin**) may decrease oral absorption
- Increased risk of agranulocytosis with **antithyroid drugs**
- May decrease anti-Parkinson activity of **levodopa** and **bromocriptine**
- Decrease vasopressor response to **epinephrine** and **norepinephrine**
- Decrease antihypertensive effect of **guanethidine**
- Concurrent use with **beta blockers** may result in inhibition of metabolism of one or both drugs, producing an increased response
- Increased risk of anticholinergic effects with other agents having **anticholinergic properties**, including antihistamines, tricyclic antidepressants, disopyramide, or quinidine
- May decrease the pharmacologic effects of **amphetamines**.

ROUTE AND DOSAGE**Fluphenazine Decanoate**

- IM, Subcut (Adults): 12.5–25 mg initially; may be repeated q 1–4 wk. Dosage may be slowly increased as needed (not to exceed 100 mg/dose).
- IM, Subcut (Children ≥12 yr): 6.25–18.75 mg initially; may

Continued on the following page

be repeated q 1–3 wk. Dosage may be slowly increased as needed to 25 mg.

- IM, Subcut (Children 5–12 yr): 3.125–12.5 mg initially; may be repeated q 1–3 wk. Dosage may be slowly increased.

Fluphenazine Enanthate

- IM, Subcut (Adults): 25 mg q 1–3 wk. May be slowly increased as needed (not to exceed 100 mg/dose).

Fluphenazine Hydrochloride

- PO (Adults): *Initial dose*—2.5–10 mg/day in divided doses q 6–8 hr. *Maintenance dose*—1–5 mg/day.
- PO (Children): 0.25–0.75 mg 1–4 times daily.
- PO, IM (Geriatric Patients or Debilitated Patients): 1–2.5 mg/day initially.
- IM (Adults): 1.25–2.5 mg q 6–8 hr.

AVAILABILITY

- *Fluphenazine decanoate injection*: 25 mg/ml^{Rx}, 100 mg/ml^{Rx}
- *Fluphenazine enanthate injection*: 25 mg/ml^{Rx}
- *Fluphenazine hydrochloride tablets*: 1 mg^{Rx}, 2.5 mg^{Rx}, 5 mg^{Rx}, 10 mg^{Rx}
- *Fluphenazine hydrochloride elixir (orange flavor)*: 2.5 mg/5 ml^{Rx}
- *Fluphenazine hydrochloride concentrate*: 5 mg/ml^{Rx}
- *Fluphenazine hydrochloride injection*: 2.5 mg/ml^{Rx}, 10 mg/ml^{Rx}.

TIME/ACTION PROFILE (antipsychotic activity)

	ONSET	PEAK	DURATION
PO hydrochloride	1 hr	unknown	6–8 hr
IM hydrochloride	1 hr	1.5–2 hr	6–8 hr
IM enanthate	24–72 hr	unknown	1–3 wk
IM decanoate	24–72 hr	unknown	≥4 wk

NURSING IMPLICATIONS

ASSESSMENT

- Assess patient's mental status (orientation, mood, behavior) before and periodically throughout therapy.
- Monitor blood pressure (sitting, standing, lying), ECG, pulse, and respiratory rate before and frequently during the period of dosage adjustment. May cause Q-wave and T-wave changes in ECG.
- Observe patient carefully when administering oral medication to ensure that medication is actually taken and not hoarded.
- Assess fluid intake and bowel function. Increased bulk and fluids in the diet help minimize constipation.
- Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait, rigidity, tremors; *dystonic*—muscle spasms, twisting motions, twitching, inability to move eyes, weakness of arms or legs) every 2 mo during therapy and 8–12 wk after therapy has been discontinued. Reduction in dosage or discontinuation of medication may be necessary. Trihexyphenidyl or diphenhydramine may be used to control these symptoms.
- Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities; lip smacking or puckering; puffing of cheeks; uncontrolled chewing; rapid or worm-like movements of tongue). Report immediately; may be irreversible.
- Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, seizures, diaphoresis, hypertension or hypotension, pallor, tiredness, severe muscle stiffness, loss of bladder control). Report immediately.

Continued on the following page

Psychotropic Drugs: *fluphenazine* (Cont'd)

- **Lab Test Considerations:** CBC, liver function tests, and ocular examinations should be evaluated periodically during therapy. May cause decreased hematocrit, hemoglobin, leukocytes, granulocytes, and platelets. May cause elevated bilirubin, AST, ALT, and alkaline phosphatase. Agranulocytosis may occur after 4–10 wk of therapy with recovery 1–2 wk after discontinuation. May recur if medication is restarted. Liver function abnormalities may require discontinuation of therapy.
 - May cause false-positive or false-negative pregnancy tests and false-positive urine bilirubin test results.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Indications).
- Noncompliance (Patient/Family Teaching).

IMPLEMENTATION

- **General:** Slight yellow to amber color does not alter potency.
 - To prevent contact dermatitis, avoid getting liquid preparations on hands and wash hands thoroughly if spillage occurs.
 - Injectable forms must be drawn up with a dry syringe and dry 21-gauge needle to prevent clouding of the solution.
- **PO:** Dilute concentrate just before administration in 120–240 ml of water, milk, carbonated beverage, soup, or tomato or fruit juice. Do not mix with beverages containing caffeine (cola, coffee), tannins (tea), or pectinates (apple juice).
- **Subcut:** Fluphenazine decanoate and enanthate are dissolved in sesame oil for long duration of action. They may be administered subcut or IM.
- **IM:** IM dose is usually 30–50% of oral dose. Because fluphenazine hydrochloride has a shorter duration of

action, it is used initially to determine the patient's response to the drug and to treat the acutely agitated patient.

- Administer deep IM, using a dry syringe and 21-gauge needle, into dorsal gluteal site. Instruct patient to remain recumbent for 30 min to prevent hypotension.

PATIENT/FAMILY TEACHING

- Advise patient to take medication exactly as directed and not to skip doses or double up on missed doses. If a dose is missed, take within 1 hr or skip dose and return to regular schedule if taking more than 1 dose/day; take as soon as possible unless almost time for next dose if taking 1 dose/day. Abrupt withdrawal may lead to gastritis, nausea, vomiting, dizziness, headache, tachycardia, and insomnia.
- Inform patient of possibility of extrapyramidal symptoms and tardive dyskinesia. Caution patient to report these symptoms immediately to health care professional.
- Advise patient to change positions slowly to minimize orthostatic hypotension.
- Medication may cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Advise patient to use sunscreen and protective clothing when exposed to the sun. Exposed surfaces may develop a blue-gray pigmentation, which may fade after discontinuation of the medication. Extremes of temperature should also be avoided because this drug impairs body temperature regulation.
- Advise patient that good oral hygiene, frequent rinsing of mouth with water, and sugarless gum or candy may help relieve dry mouth. Health care professional should be notified if dry mouth persists beyond 2 wk.

Continued on the following page

- Inform patient that this medication may turn urine pink to reddish-brown.
- Instruct patient to notify health care professional promptly if sore throat, fever, unusual bleeding or bruising, rash, weakness, tremors, visual disturbances, dark-colored urine, or clay-colored stools occur.
- Advise patient to notify health care professional of medication regimen before treatment or surgery.

- Emphasize the importance of routine follow-up exams, including ocular exams, with long-term therapy and continued participation in psychotherapy.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in excitable, paranoid, or withdrawn behavior.

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flurazepam

(flur-az-e-pam)

Apo-Flurazepam, Dalmane, Novoflupam, Somnol

CLASSIFICATION(S):

Therapeutic: sedative/hypnotics

Pharmacologic: benzodiazepines

Schedule IV

Pregnancy Category UK

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INDICATIONS

- Short-term management of insomnia (<4 wk).

ACTION

- Depresses the CNS, probably by potentiating GABA, an inhibitory neurotransmitter.
- **Therapeutic Effects:**
 - Relief of insomnia.

PHARMACOKINETICS

Absorption: Well absorbed after oral administration.

Distribution: Widely distributed; crosses blood-brain barrier. Probably crosses the placenta and enters breast milk. Accumulation of drug occurs with chronic dosing.

Protein Binding: 97% (one of the active metabolites).

Metabolism and Excretion: Metabolized by the liver; some metabolites have hypnotic activity.

Half-life: 2.3 hr (half-life of active metabolite may be 30–200 hr).

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Cross-sensitivity with other benzodiazepines may exist
- Pre-existing CNS depression
- Severe uncontrolled pain
- Narrow-angle glaucoma
- Pregnancy or lactation.

Use Cautiously in:

- Hepatic dysfunction (dosage reduction may be necessary)
- History of suicide attempt or drug dependence
- Geriatric or debilitated patients (initial dosage reduction may be necessary)
- Children <15 yr (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

Continued on the following page

CNS: confusion, daytime drowsiness, decreased concentration, dizziness, headache, lethargy, mental depression, paradoxical excitation.

EENT: blurred vision.

GI: constipation, diarrhea, nausea, vomiting.

Derm: rashes.

Neuro: ataxia.

Misc: physical dependence, psychological dependence, tolerance.

INTERACTIONS

Drug–Drug:

- Concurrent use with alcohol, antidepressants, antihistamines, and opioids may result in additive CNS depression
- Cimetidine, hormonal contraceptives, disulfiram, fluoxetine, isoniazid, ketoconazole, metoprolol, propoxyphene, propranolol, or valproic acid may decrease the metabolism of flurazepam, enhancing its actions
- May decrease efficacy of levodopa
- Rifampin or barbiturates may increase the metabolism and decrease effectiveness of flurazepam
- Sedative effects may be decreased by theophylline.

Drug–Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can increase CNS depression.

ROUTE AND DOSAGE

- PO (Adults): 15–30 mg at bedtime.
- PO (Geriatric Patients or Debilitated Patients): 15 mg initially, may be increased.

AVAILABILITY

- **Capsules:** 15 mg^{Rx}, 30 mg^{Rx}
- **Cost:** *Dalmane*—15 mg \$29.43/30, 30 mg \$32.09/30; generic—15 mg \$16.64/30, 30 mg \$17.68/30
- **Tablets:** 15 mg^{Rx}, 30 mg^{Rx}.

TIME/ACTION PROFILE (hypnotic activity)

	ONSET	PEAK	DURATION
PO	15–45 min	0.5–1 hr	7–8 hr

NURSING IMPLICATIONS

ASSESSMENT

- Assess sleep patterns before and periodically throughout therapy.
- Prolonged therapy may lead to psychological or physical dependence. Restrict amount of drug available to patient, especially if patient is depressed or suicidal, or has a history of addiction.

POTENTIAL NURSING DIAGNOSES

- Sleep pattern, disturbed (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse flurazepam with temazepam.
 - Supervise ambulation and transfer of patients after administration. Remove cigarettes. Side rails should be raised and call bell within reach at all times.
- PO: Capsules may be opened and mixed with food or fluids for patients having difficulty swallowing.

Continued on the following page

PATIENT/FAMILY TEACHING

- Advise patient to take medication exactly as directed. Discuss the importance of preparing environment for sleep (dark room, quiet, avoidance of nicotine and caffeine).
- Medication may cause daytime drowsiness. Caution patient to avoid driving and other activities requiring alertness until response to medication is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.

- Instruct patient to contact health care professional immediately if pregnancy is planned or suspected.

EVALUATION**Effectiveness of therapy can be demonstrated by:**

- Improvement in sleep patterns. Maximum hypnotic properties are apparent 2–3 nights after initiating therapy and may last 1–2 nights after therapy is discontinued.

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fluvoxamine

(floo-voks-a-meen)

Luvox

CLASSIFICATION(S):

Therapeutic: antidepressants, antiobsessive agents

Pharmacologic: selective serotonin reuptake inhibitors (SSRIs)

Pregnancy Category C

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INDICATIONS

- Obsessive-compulsive disorder.
- Unlabelled Uses:
 - Depression.

ACTION

- Inhibits the reuptake of serotonin in the CNS.
- **Therapeutic Effects:**
 - Decrease in obsessive-compulsive behaviors.

PHARMACOKINETICS

Absorption: 53% absorbed after oral administration.

Distribution: Excreted in breast milk; enters the CNS. Remainder of distribution not known.

Metabolism and Excretion: Eliminated mostly by the kidneys.

Half-life: 13.6–15.6 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity to fluvoxamine or other SSRIs
- Concurrent MAO inhibitor therapy.

Use Cautiously in:

- Geriatric patients or patients with impaired hepatic function (lower initial dose and slower dosage titration recommended)
- Pregnancy, lactation, or children <18 yr (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, drowsiness, headache, insomnia, nervousness, weakness, agitation, anxiety, apathy, emotional lability, manic reactions, mental depression, psychotic reactions, syncope.

EENT: sinusitis.

Resp: cough, dyspnea.

CV: edema, hypertension, palpitations, postural hypotension, tachycardia, vasodilation.

GI: constipation, diarrhea, dry mouth, dyspepsia, nausea, anorexia, dysphagia, elevated liver enzymes, flatulence, vomiting.

Continued on the following page

GU: decreased libido/sexual dysfunction.

Derm: excessive sweating.

Metab: weight gain, weight loss.

MS: hypertonia, myoclonus/twitching.

Neuro: hypokinesia/hyperkinesia, tremor.

Misc: allergic reactions, chills, flu-like symptoms, tooth disorder/caries, yawning.

INTERACTIONS

Drug–Drug:

- **Serious, potentially fatal reactions (serotonin syndrome) may occur with MAO inhibitors**
- Smoking may decrease the effectiveness of fluvoxamine
- Concurrent use with tricyclic antidepressants may increase plasma levels of fluvoxamine
- Decreases metabolism and may increase effects of some beta blockers (propranolol), some benzodiazepines (avoid concurrent diazepam), carbamazepine, methadone, lithium, theophylline (decrease dose to 33% of usual dose), tolbutamide, warfarin, and L-tryptophan
- Increases blood levels and risk of toxicity from clozapine (dosage adjustments may be necessary).

ROUTE AND DOSAGE

- **PO (Adults):** *Initial dose*—50 mg daily at bedtime; increase by 50 mg q 4–7 days until desired effect is achieved. If daily dose >100 mg, give in two equally divided doses or give a larger dose at bedtime (not to exceed 300 mg/day).
Maintenance dose—Make periodic adjustments to maintain lowest possible dose to control symptoms.
- **PO (Children 8–17 yr):** 25 mg at bedtime, may increase by 25 mg/day q 4–7 days (not to exceed 200 mg/day; daily doses >50 mg should be given in divided doses with a larger dose at bedtime).

Hepatic Impairment

- **PO (Adults):** 25 mg daily at bedtime initially, slower titration and longer dosing intervals should be used.

AVAILABILITY

- **Tablets:** 25 mg^{Rx}, 50 mg^{Rx}, 100 mg^{Rx}.

TIME/ACTION PROFILE (improvement on obsessive-compulsive behaviors)

	ONSET	PEAK	DURATION
PO	within 2–3 wk	several mo	unknown

NURSING IMPLICATIONS

ASSESSMENT

- Monitor mood changes. Assess patient for frequency of obsessive-compulsive behaviors. Note degree to which these thoughts and behaviors interfere with daily functioning. Inform physician or other health care professional if patient demonstrates significant increase in anxiety, nervousness, or insomnia.
- Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- Monitor appetite and nutritional intake. Weigh weekly. Report significant changes in weight. Adjust diet as tolerated to support nutritional status.
- **Toxicity and Overdose:** Common symptoms of toxicity include drowsiness, vomiting, diarrhea, and dizziness. Coma, tachycardia, bradycardia, hypotension, ECG abnormalities, liver function abnormalities, and convulsions may also occur. Treatment is symptomatic and supportive.

Continued on the following page

Psychotropic Drugs: *fluvoxamine* (Cont'd)

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Injury, risk for (Side Effects).
- Knowledge, deficient, related to medication regimen (Patient/Family Teaching).

IMPLEMENTATION

- PO: Initial therapy is administered as a single bedtime dose. May be increased every 4–7 days as tolerated.
 - Fluvoxamine may be given without regard to meals.

PATIENT/FAMILY TEACHING

- Instruct patient to take fluvoxamine exactly as directed. Do not skip or double up on missed doses. Improvement in symptoms may be noticed in 2–3 wk, but medication should be continued as directed.
- May cause drowsiness and dizziness. Caution patient to avoid driving and other activities requiring alertness until response to medication is known.

- Advise patient to avoid alcohol or other CNS depressants during therapy and to consult health care professional before taking other medications with fluvoxamine.
- Instruct female patients to notify health care professional if breastfeeding or if pregnancy is planned or suspected.
- Advise patient to notify health care professional if rash or hives occur or if headache, nausea, anorexia, anxiety, or insomnia persists.
- Emphasize the importance of follow-up exams to monitor progress.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in symptoms of obsessive-compulsive disorder.

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gabapentin

(ga-ba-pen-tin)

Neurontin

CLASSIFICATION(S):

Therapeutic: analgesic adjuncts, therapeutic, anticonvulsants

Pregnancy Category C

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INDICATIONS

- Partial seizures with and without secondary generalization (adjunct treatment).
- Postherpetic neuralgia.
- Unlabelled Uses:
 - Chronic pain
 - Prevention of migraine headache.

ACTION

- Mechanism of action is not known. May affect transport of amino acids across and stabilize neuronal membranes.
- **Therapeutic Effects:**
 - Decreased incidence of seizures.
 - Decreased postherpetic pain.

PHARMACOKINETICS

Absorption: Well absorbed after oral administration by active transport. At larger doses, transport becomes saturated and absorption decreases (bioavailability ranges from 60% for a 300-mg dose to 35% for a 1600-mg dose).

Distribution: Crosses blood-brain barrier; enters breast milk.

Metabolism and Excretion: Eliminated mostly by renal excretion of unchanged drug.

Half-life: 5–7 hr (normal renal function); up to 132 hr in anuria.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity.

Use Cautiously in:

- Renal insufficiency (↓ dose and/or ↑ dosing interval if CCr ≤60 ml/min)
- Geriatric patients (because of age-related ↓ in renal function)
- Pregnancy, lactation, or children <3 yr (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: confusion, depression, drowsiness, anxiety, concentration difficulties (children), dizziness, emotional lability (children), hostility, hyperkinesia (children), malaise, vertigo, weakness.

EENT: abnormal vision, nystagmus.

Continued on the following page

CV: hypertension.

GI: anorexia, flatulence, gingivitis.

MS: arthralgia.

Neuro: ataxia, altered reflexes, hyperkinesia, paresthesia.

Misc: facial edema.

INTERACTIONS

Drug–Drug:

- Antacids may ↓ absorption of gabapentin
- ↑ risk of CNS depression with other CNS depressants, including alcohol, antihistamines, opioids, and sedative/hypnotics
- Morphine ↑ gabapentin levels and may ↑ risk of toxicity, dosage adjustments may be required.

Drug–Natural:

- Kava, valerian, or chamomile can ↑ CNS depression.

ROUTE AND DOSAGE

Epilepsy

- PO (Adults and Children >12 yr): 300 mg 3 times daily initially. Titration may be continued until desired (range is 900–1800 mg/day in 3 divided doses; doses should not be more than 12 hr apart). Doses up to 2400–3600 mg/day have been well tolerated.
- PO (Children ≥5–12 yr): 10–15 mg/kg/day in 3 divided doses initially titrated upward over 3 days to 25–35 mg/kg/day in 3 divided doses; dosage interval should not exceed 12 hr (doses up to 50 mg/kg/day have been used).
- PO (Children 3–4 yrs): 10–15 mg/kg/day in 3 divided doses initially titrated upward over 3 days to 40 mg/kg/day in 3 divided doses; dosage interval should not exceed 12 hr (doses up to 50 mg/kg/day have been used).

Renal Impairment

- PO (Adults and Children >12 yr): CCr 30–60 ml/min—300 mg twice daily; CCr 15–30 ml/min—300 mg once daily; CCr < 15 ml/min—300 mg once every other day; further adjustments are based on clinical response.

Post-herpetic neuralgia

- PO (Adults): 300 mg once daily on first day, 300 mg twice daily on second day, then 300 mg three times/day on day 3, may then be titrated upward as needed up to 600 mg three times/day.

AVAILABILITY

- Capsules: 100 mg^{Rx}, 300 mg^{Rx}, 400 mg^{Rx}
- Cost: 100 mg \$51.41/100, 300 mg \$128.51/100, 400 mg \$154.21/100
- Tablets: 600 mg^{Rx}, 800 mg^{Rx}
- Cost: 600 mg \$212.00/100, 800 mg \$254.29/100.
- Oral solution (cool strawberry anise flavor): 250 mg/5 ml^{Rx}

TIME/ACTION PROFILE (blood levels)

	ONSET	PEAK	DURATION
PO	rapid	2–4 hr	8 hr

NURSING IMPLICATIONS

ASSESSMENT

- Seizures: Assess location, duration, and characteristics of seizure activity.
- Postherpetic Neuralgia & Chronic Pain: Assess location, characteristics, and intensity of pain periodically during therapy.

Continued on the following page

- **Lab Test Considerations:** May cause false-positive readings when testing for urinary protein with *Ames N-Multistix SG* dipstick test; use sulfosalicylic acid precipitation procedure.
 - May cause leukopenia.

POTENTIAL NURSING DIAGNOSES

- Injury, risk for (Side Effects).

IMPLEMENTATION

- **PO:** May be administered without regard to meals.
 - Gabapentin should be discontinued gradually over at least 1 wk. Abrupt discontinuation may cause increase in seizure frequency.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed. Patients on tid dosing should not exceed 12 hr between doses. Take missed doses as soon as possible; if less than 2 hr until next dose, take dose immediately and take next dose 1–2 hr later, then resume regular dosing schedule. Do not double doses. Do not discontinue abruptly; may cause increase in frequency of seizures.

- Advise patient not to take gabapentin within 2 hr of an antacid.
- Gabapentin may cause dizziness and drowsiness. Caution patient to avoid driving or activities requiring alertness until response to medication is known. Seizure patients should not resume driving until physician gives clearance based on control of seizure disorder.
- Advise female patient to notify health care professional if pregnancy is planned or suspected or if she intends to breast-feed or is breastfeeding an infant.
- Instruct patient to notify health care professional of medication regimen before treatment or surgery.
- Advise patient to carry identification describing disease process and medication regimen at all times.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in the frequency of or cessation of seizures
- Decrease in postherpetic neuralgia pain
- Decrease in intensity of chronic pain.

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haloperidol

(ha-loe-per-i-dole)

Apo-Haloperidol, Haldol, Haldol Decanoate, Haldol LA, Novo-Peridol, Peridol, PMS Haloperidol

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pharmacologic: butyrophenones

Pregnancy Category C

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INDICATIONS

- Acute and chronic psychotic disorders including:
 - schizophrenia
 - manic states
 - drug-induced psychoses
- Also useful in managing aggressive or agitated patients
- Tourette's syndrome
- Severe behavioral problems in children which may be accompanied by:
 - unprovoked, combative, explosive hyperexcitability
 - hyperactivity accompanied by conduct disorders (short term use when other modalities have failed).
- Unlabelled Uses:
 - Nausea and vomiting from surgery or chemotherapy.

ACTION

- Alters the effects of dopamine in the CNS
- Also has anticholinergic and alpha-adrenergic blocking activity.
- **Therapeutic Effects:**
 - Diminished signs and symptoms of psychoses
 - Improved behavior in children with Tourette's syndrome or other behavioral problems.

PHARMACOKINETICS

Absorption: Well absorbed following PO/IM administration. Decanoate salt is slowly absorbed and has a long duration of action.

Distribution: Concentrates in liver. Crosses placenta; enters breast milk.

Protein Binding: 90%.

Metabolism and Excretion: Mostly metabolized by the liver.

Half-life: 21–24 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Narrow-angle glaucoma
- Bone marrow depression
- CNS depression
- Severe liver or cardiovascular disease
- Some products contain tartrazine, sesame oil, or benzyl alcohol and should be avoided in patients with known intolerance or hypersensitivity.

Continued on the following page

Use Cautiously in:

- Geriatric or debilitated patients (dosage reduction required)
- Cardiac disease
- Diabetes
- Respiratory insufficiency
- Prostatic hypertrophy
- CNS tumors
- Intestinal obstruction
- Seizures
- Pregnancy and lactation (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **SEIZURES**, extrapyramidal reactions, confusion, drowsiness, restlessness, tardive dyskinesia.

EENT: blurred vision, dry eyes.

Resp: respiratory depression.

CV: hypotension, tachycardia.

GI: constipation, dry mouth, anorexia, drug-induced hepatitis, ileus.

GU: urinary retention.

Derm: diaphoresis, photosensitivity, rashes.

Endo: galactorrhea.

Hemat: anemia, leukopenia.

Metab: hyperpyrexia.

Misc: **NEUROLEPTIC MALIGNANT SYNDROME**, hypersensitivity reactions.

INTERACTIONS**Drug–Drug:**

- ↑ hypotension with antihypertensives, nitrates, or acute ingestion of alcohol

- ↑ anticholinergic effects with drugs having anticholinergic properties, including antihistamines, antidepressants, atropine, phenothiazines, quinidine, and disopyramide
- ↑ CNS depression with other CNS depressants, including alcohol, antihistamines, opioid analgesics, and sedative/hypnotics
- Concurrent use with **epinephrine** may result in severe hypotension and tachycardia
- May ↓ therapeutic effects of **levodopa** or **pergolide**
- Acute encephalopathic syndrome may occur when used with **lithium**
- Dementia may occur with **methyldopa**.

Drug–Natural:

- Kava, valerian, or chamomile can ↑ CNS depression.

ROUTE AND DOSAGE**Haloperidol**

- **PO (Adults):** 0.5–5 mg 2–3 times daily. Patients with severe symptoms may require up to 100 mg/day.
- **PO (Geriatric Patients or Debilitated Patients):** 0.5–2 mg twice daily initially; may be gradually increased as needed.
- **PO (Children 3–12 yr or 15–40 kg):** 50 mcg/kg/day in 2–3 divided doses; may increase by 500 mcg (0.5 mg)/day q 5–7 days as needed (up to 75 mcg/kg/day for nonpsychotic disorders or Tourette's syndrome or 150 mcg/kg/day for psychoses).
- **IM (Adults):** 2–5 mg q 1–8 hr (not to exceed 100 mg/day).
- **IV (Adults):** 0.5–5 mg, may be repeated q 30 min (unlabeled).

Haloperidol Decanoate

- **IM (Adults):** 10–15 times the previous daily PO dose but not to exceed 100 mg initially, given monthly (not to exceed 300 mg/mo).

Continued on the following page

AVAILABILITY

- **Tablets:** 0.5 mg^{Rx}, 1 mg^{Rx}, 2 mg^{Rx}, 5 mg^{Rx}, 10 mg^{Rx}, 20 mg^{Rx}
- **Cost:** *Haldol*—1 mg \$22.93/30, 2 mg \$32.82/30; *generic*—1 mg \$7.95/100, 2 mg \$10.95/100
- **Oral concentrate:** 2 mg/ml^{Rx}
- **Haloperidol injection:** 5 mg/ml^{Rx}
- **Haloperidol decanoate injection:** 50 mg/ml^{Rx}, 100 mg/ml^{Rx}.

TIME/ACTION PROFILE (antipsychotic activity)

	ONSET	PEAK	DURATION
PO	2 hr	2–6 hr	8–12 hr
IM	20–30 min	30–45 min	4–8 hr [†]
IM (decanoate)	3–9 days	unknown	1 mo

[†]Effect may persist for several days.

NURSING IMPLICATIONS

ASSESSMENT

- Assess mental status (orientation, mood, behavior) prior to and periodically during therapy.
- Monitor blood pressure (sitting, standing, lying) and pulse prior to and frequently during the period of dosage adjustment. May cause QT interval changes on ECG.
- Observe patient carefully when administering medication, to ensure that medication is actually taken and not hoarded.
- Monitor intake and output ratios and daily weight. Assess patient for signs and symptoms of dehydration (decreased thirst, lethargy, hemoconcentration), especially in geriatric patients.
- Assess fluid intake and bowel function. Increased bulk and fluids in the diet help minimize constipating effects.
- Monitor patient for onset of akathisia (restlessness or desire to keep moving), which may appear within 6 hr of 1st dose and may be difficult to distinguish from psychotic agitation;

benztropine may be used to differentiate. Observe closely for extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait, rigidity, tremors; and *dystonic*—muscle spasms, twisting motions, twitching, inability to move eyes, weakness of arms or legs).

- Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities; lip smacking or puckering; puffing of cheeks; uncontrolled chewing; rapid or worm-like movements of tongue). Report immediately; may be irreversible.
- **Monitor for development of neuroleptic malignant syndrome** (fever, respiratory distress, tachycardia, diaphoresis, hypertension or hypotension, pallor, tiredness, severe muscle stiffness, loss of bladder control). Report symptoms immediately. May also cause leukocytosis, elevated liver function tests, elevated CPK.
- **Lab Test Considerations:** Monitor CBC with differential and liver function tests periodically during therapy.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Indications).

IMPLEMENTATION

- **General:** Avoid skin contact with oral solution; may cause contact dermatitis.
- **PO:** Administer with food or full glass of water or milk to minimize GI irritation.
 - Use calibrated measuring device for accurate dosage. Do not dilute concentrate with coffee or tea; may cause precipitation. Should be given undiluted, but if necessary may dilute in at least 60 ml of liquid.
- **IM:** Inject slowly, using 2-in., 21-gauge needle into well-developed muscle via Z-track technique. Do not exceed 3 ml per injection site. Slight yellow color does not indicate altered potency. Keep patient recumbent for at least 30 min following injection to minimize hypotensive effects.

Continued on the following page

Psychotropic Drugs: *haloperidol* (Cont'd)

- **Direct IV:** May be administered undiluted for rapid control of acute psychosis or delirium.
- **Rate:** Administer at a rate of 5 mg/min.
- **Intermittent Infusion:** May be diluted in 30–50 ml of D5W.
- **Rate:** Infuse over 30 min.
- **Syringe Compatibility:** ◆ hydromorphone ◆ lorazepam ◆ sufentanil.
- **Syringe Incompatibility:** ◆ diphenhydramine ◆ heparin ◆ hydroxyzine ◆ ketorolac.
- **Y-Site Compatibility:** ◆ amifostine ◆ aztreonam ◆ cimetidine ◆ cisatracurium ◆ cladribine ◆ dobutamine ◆ docetaxel ◆ dopamine ◆ doxorubicin liposome ◆ etoposide phosphate ◆ famotidine ◆ fentanyl ◆ filgrastim ◆ fludarabine ◆ gatifloxacin ◆ gemcitabine ◆ granisetron ◆ hydromorphone ◆ lidocaine ◆ linezolid ◆ lorazepam ◆ melphalan ◆ methadone ◆ midazolam ◆ nitroglycerin ◆ norepinephrine ◆ ondansetron ◆ paclitaxel ◆ phenylephrine ◆ propofol ◆ remifentanyl ◆ sufentanil ◆ tacrolimus ◆ teniposide ◆ theophylline ◆ thiotepa ◆ vinorelbine.
- **Y-Site Incompatibility:** ◆ allopurinol ◆ amphotericin B cholesteryl sulfate complex ◆ cefepime ◆ fluconazole ◆ foscarnet ◆ heparin ◆ piperacillin/tazobactam ◆ sargramostim.

PATIENT/FAMILY TEACHING

- Advise patient to take medication as directed. Take missed doses as soon as remembered, with remaining doses evenly spaced throughout the day. May require several weeks to obtain desired effects. Do not increase dose or discontinue medication without consulting health care professional. Abrupt withdrawal may cause dizziness; nausea; vomiting; GI upset; trembling; or uncontrolled movements of mouth, tongue, or jaw.

- Inform patient of possibility of extrapyramidal symptoms and tardive dyskinesia. Caution patient to report symptoms immediately.
- Advise patient to change positions slowly to minimize orthostatic hypotension.
- May cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Advise patient to use sunscreen and protective clothing when exposed to the sun to prevent photosensitivity reactions. Extremes of temperature should also be avoided, because this drug impairs body temperature regulation.
- Instruct patient to use frequent mouth rinses, good oral hygiene, and sugarless gum or candy to minimize dry mouth.
- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- Instruct patient to notify health care professional promptly if weakness, tremors, visual disturbances, dark-colored urine or clay-colored stools, sore throat, or fever is noted.
- Emphasize the importance of routine follow-up exams.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in hallucinations, insomnia, agitation, hostility, and delusions
- Decreased tics and vocalization in Tourette's syndrome.
- Improved behavior in children with severe behavioral problems. If no therapeutic effects are seen in 2–4 wk, dosage may be increased.

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aripiprazole

(a-ri-**pip**-ra-zole)

Abilify

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pharmacologic: dihydrocarbostyryl

Pregnancy Category C

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INDICATIONS

- Treatment of schizophrenia.

ACTION

- Psychotropic activity may be due to agonist activity at dopamine D₂ and serotonin 5-HT_{1A} receptors and antagonist activity at the 5-HT_{2A} receptor
- Also has alpha1 adrenergic blocking activity.
- **Therapeutic Effects:**
 - Decreased manifestations of schizophrenia.

PHARMACOKINETICS

Absorption: Well absorbed (87%) following oral administration.

Distribution: Extensive extravascular distribution.

Protein Binding: *aripiprazole and dehydro-aripiprazole*—>99%.

Metabolism and Excretion: Mostly metabolized by the liver (CYP3A4 and CYP2D6 enzymes); one metabolite (*dehydro-aripiprazole*) has antipsychotic activity. 18% excreted unchanged in feces; <1% excreted unchanged

in urine. A small percentage of patients are poor metabolizers and may need smaller doses.

Half-life: *Aripiprazole*—75 hr; *dehydro-aripiprazole*—94 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Lactation.

Use Cautiously in:

- Known cardiovascular or cerebrovascular disease
- Conditions which cause hypotension (dehydration, treatment with antihypertensives or diuretics)
- Concurrent ketoconazole or other potential CYP3A4 inhibitors (reduce aripiprazole dose by 50%)
- Concurrent quinidine, fluoxetine, paroxetine or other potential CYP2D6 inhibitors
- Concurrent carbamazepine or other potential CYP3A4 inducers
- Pregnancy (use only if benefit outweighs risk to fetus)
- Children and adolescents (safety not established).

Continued on the following page

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: confusion, depression, drowsiness, extrapyramidal reactions, hostility, lightheadedness, manic reactions, nervousness, ecchymosis, suicidal thought, tardive dyskinesia.

Resp: dyspnea.

CV: bradycardia, chest pain, edema, hypertension, orthostatic hypotension, tachycardia.

EENT: conjunctivitis, ear pain.

GI: anorexia, ↑ salivation, nausea, vomiting.

GU: urinary incontinence.

Hemat: anemia.

Derm: dry skin, skin ulcer, sweating.

Metab: weight loss.

MS: muscle cramps, neck pain.

Neuro: abnormal gait.

Misc: **NEUROLEPTIC MALIGNANT SYNDROME**, ↓ heat regulation.

INTERACTIONS

Drug–Drug:

- Ketoconazole or other potential CYP3A4 inhibitors decrease metabolism and increase effects (reduce aripiprazole dose by 50%)
- Quinidine, fluoxetine, paroxetine or other potential CYP2D6 inhibitors decrease metabolism and increase effects (reduce aripiprazole dose by at least 50%)
- Concurrent carbamazepine or other potential CYP3A4 inducers (double aripiprazole dose; then decrease to 10–15 mg/day when interfering drug is withdrawn).

ROUTE AND DOSAGE

- **PO (Adults):** *Starting and target dose*—10 or 15 mg/day as a single dose, doses up to 30 mg/day have been used; increments in dosing should not be made before 2 wk at a given dose.

AVAILABILITY

- **Tablets:** 10 mg^{Rx}, 15 mg^{Rx}, 20 mg^{Rx}, 30 mg^{Rx}

TIME/ACTION PROFILE (antipsychotic effect)

	ONSET	PEAK	DURATION
PO	unknown	2 wk	unknown

NURSING IMPLICATIONS

ASSESSMENT

- Assess patient's mental status (orientation, mood, behavior) before and periodically during therapy.
- Monitor blood pressure (sitting, standing, lying), pulse, and respiratory rate before and periodically during therapy.
- Observe patient carefully when administering medication to ensure that medication is actually taken and not hoarded.
- Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait, rigidity, tremors; and *dystonic*—muscle spasms, twisting motions, twitching, inability to move eyes, weakness of arms or legs) periodically during therapy.
- Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities; lip smacking or puckering; puffing of cheeks; uncontrolled chewing; rapid or

Continued on the following page

worm-like movements of tongue). Notify physician or other health care professional immediately if these symptoms occur, as these side effects may be irreversible.

- **Monitor for development of neuroleptic malignant syndrome** (fever, muscle rigidity, altered mental status, respiratory distress, tachycardia, seizures, diaphoresis, hypertension or hypotension, pallor, tiredness, loss of bladder control). Notify physician or other health care professional immediately if these symptoms occur.
- **Lab Test Considerations:** May cause ↑ creatinine phosphokinase.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Indications).
- Noncompliance (Patient/Family Teaching).

IMPLEMENTATION

- PO: Administer once daily without regard to meals.

PATIENT/FAMILY TEACHING

- Advise patient to take medication exactly as directed and not to skip doses or double up on missed doses. If a dose is missed, it should be taken as soon as remembered unless almost time for the next dose.
- Inform patient of possibility of extrapyramidal symptoms and tardive dyskinesia. Instruct patient to report these symptoms immediately.

- Advise patient to make position changes slowly to minimize orthostatic hypotension.
- Medication may cause drowsiness and lightheadedness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Advise patient that extremes in temperature should be avoided, because this drug impairs body temperature regulation.
- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- Emphasize the importance of routine follow-up exams and continued participation in psychotherapy as indicated.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in excitable, paranoid, or withdrawn behavior.

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atomoxetine

(a-to-mox-e-teen)

Strattera

CLASSIFICATION(S):

Therapeutic: agents for attention deficit disorder

Pharmacologic: selective norepinephrine reuptake inhibitors

Pregnancy Category C

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INDICATIONS

- Treatment of Attention-Deficit/Hyperactivity Disorder (ADHD).

ACTION

- Selectively inhibits the presynaptic transporter of norepinephrine.
- **Therapeutic Effects:**
 - Increased attention span.

PHARMACOKINETICS

Absorption: Well absorbed following oral administration.

Distribution: Unknown.

Protein Binding: 98%.

Metabolism and Excretion: Mostly metabolized by the liver (CYP2D6 enzyme pathway). A small percentage of the population are poor metabolizers and will have higher blood levels with increased effects).

Half-life: 5 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Concurrent or within 2 wk therapy with MAO inhibitors
- Narrow angle glaucoma.

Use Cautiously in:

- Hypertension, tachycardia, cardiovascular or cerebrovascular disease
- Concurrent albuterol or vasopressors (increases risk of adverse cardiovascular reactions)
- Pregnancy (use only if benefits outweigh risks to fetus)
- Lactation or children <6 yr (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, fatigue, mood swings; *Adults*—insomnia.

CV: hypertension, orthostatic hypotension, tachycardia.

GI: dyspepsia, nausea, vomiting; *Adults*—dry mouth, constipation.

Derm: rash, urticaria.

GU: *Adults*—dysmenorrhea, ejaculatory problems, ↓ libido, impotence, urinary hesitation, urinary retention.

Metab: decreased appetite, weight/growth loss.

Misc: allergic reactions including **ANGIONEUROTIC EDEMA**.

Continued on the following page

INTERACTIONS

Drug–Drug:

- Concurrent use with MAO inhibitors may result in serious, potentially fatal reactions (do not use within 2 wk of each other)
- Increased risk of cardiovascular effects with albuterol or vasopressors (use cautiously)
- Drugs which inhibit the CYP2D6 enzyme pathway (quinidine, fluoxetine, paroxetine) will increase blood levels and effects, dosage ↓ recommended.

ROUTE AND DOSAGE

- PO (Children and adolescents <70 kg): 0.5 mg/kg/day initially, may be increased every 3 days to a daily target dose of 1.2 mg/kg, given as a single dose in the morning or evenly divided doses in the morning and late afternoon/early evening (not to exceed 1.4 mg/kg/day or 100 mg/day whichever is less). *If taking concurrent CYP2D6 inhibitor (quinidine, fluoxetine, paroxetine)*—0.5 mg/kg/day initially, may increase if needed to 1.2 mg/kg/day after 4 wk.
- PO (Adults, adolescents and children >70 kg): 40 mg/day initially, may be increased every 3 days to a daily target dose of 80 mg/day given as a single dose in the morning or evenly divided doses in the morning and late afternoon/early evening; may be further increased after 2–4 wk up to 100 mg/day. *If taking concurrent CYP2D6 inhibitor (quinidine, fluoxetine, paroxetine)*—40 mg/day initially, may increase if needed to 80 mg/day after 4 wk.

Hepatic Impairment

- PO (Adults and Children): *Moderate hepatic impairment (Child-Pugh Class B)*—decrease initial and target dose by 50%; *Severe hepatic impairment (Child-Pugh Class C)*—decrease initial and target dose to 25% of normal.

AVAILABILITY

- Capsules: 10 mg^{Rx}, 18 mg^{Rx}, 25 mg^{Rx}, 20 mg^{Rx}, 60 mg^{Rx}

TIME/ACTION PROFILE

	ONSET	PEAK	DURATION
PO	unknown	1–2 hr	12–24 hr

NURSING IMPLICATIONS

ASSESSMENT

- Assess attention span, impulse control, and interactions with others.
- Monitor blood pressure and pulse periodically during therapy.
- Monitor growth, body height and weight in children.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Indications).
- Social interaction, impaired (Indications).

IMPLEMENTATION

- PO: Administer without regard to food.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed. Missed doses should be taken as soon as possible, but should not more than the total daily amount in any 24-hr period.
- Caution patient to consult health care professional prior to taking other prescription, OTC, dietary supplements, or herbal products.

Continued on the following page

- May cause dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Advise female patients to notify health care professional if pregnancy is planned or suspected or if they are breastfeeding.
- Advise parents to notify school nurse of medication regimen.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Improved attention span and social interactions in ADHD.

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escitalopram

(ess-sit-al-o-pram)

Lexapro

CLASSIFICATION(S):

Therapeutic: antidepressants

Pharmacologic: selective serotonin reuptake inhibitors (SSRIs)

Pregnancy Category C

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INDICATIONS

- Treatment of depression, often in conjunction with psychotherapy.

ACTION

- Selectively inhibits the reuptake of serotonin in the CNS.
- **Therapeutic Effects:**
 - Antidepressant action.

PHARMACOKINETICS

Absorption: 80% absorbed following oral administration.

Distribution: Enters breast milk.

Metabolism and Excretion: Mostly metabolized by the liver (primarily CYP3A4 and CYP2C19 isoenzymes); 7% excreted unchanged by kidneys.

Half-life: Increased in geriatric patients and patients with hepatic impairment.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Concurrent MAO inhibitors
- Concurrent use of citalopram.

Use Cautiously in:

- History of mania (may activate mania/hypomania)
- History of seizures
- Patients at risk for suicide
- Hepatic impairment (dosage reduction recommended)
- Severe renal impairment
- Pregnancy or children (safety not established)
- Lactation (may cause adverse effects in infant; risk/benefit should be considered).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: insomnia, dizziness, drowsiness, fatigue.

GI: diarrhea, nausea, abdominal pain, constipation, dry mouth, indigestion.

GU: anorgasmia, decreased libido, ejaculatory delay, impotence.

Derm: increased sweating.

Endo: syndrome on inappropriate secretion of antidiuretic hormone (SIADH).

Continued on the following page

F and E: hyponatremia.

Metab: increased appetite.

INTERACTIONS

Drug–Drug:

- May cause serious, potentially fatal reactions when used with MAO inhibitors ; allow at least 14 days between escitalopram and MAO inhibitors
- Use cautiously with other centrally acting drugs (including alcohol, antihistamines, opioid analgesics, and sedative/hypnotics; concurrent use with alcohol is not recommended)
- Concurrent use with sumatriptan or other 5-HT₃ agonist vascular headache suppressants may result in weakness, hyperreflexia, and incoordination
- Cimetidine increases blood levels of escitalopram
- Serotonergic effects may be potentiated by lithium (concurrent use should be carefully monitored)
- Carbamazepine may decrease blood levels
- May increase blood levels of metoprolol
- Concurrent use with tricyclic antidepressants should be undertaken with caution because of altered pharmacokinetics.

Drug–Natural:

- Increased risk of serotonin syndrome with St. John's wort and SAMe.

ROUTE AND DOSAGE

- PO (Adults): 10 mg once daily, may be increased to 20 mg once daily after one week.

Hepatic Impairment

- PO (Adults): 10 mg once daily.
- PO (Geriatric Patients): 10 mg once daily.

AVAILABILITY

- Tablets: 5 mg^{Rx}, 10 mg^{Rx}, 20 mg^{Rx}
- Oral solution (peppermint): 10 mg/5 ml in 240–ml bottles^{Rx}

TIME/ACTION PROFILE (antidepressant effect)

	ONSET	PEAK	DURATION
PO	within 1–4 wk	Unknown	Unknown

NURSING IMPLICATIONS

ASSESSMENT

- Monitor mood changes during therapy.
- Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not administer escitalopram and citalopram concomitantly.
- **PO:** Administer as a single dose in the morning or evening without regard to meals.

PATIENT/FAMILY TEACHING

- Instruct patient to take escitalopram exactly as directed.
- May cause dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Advise patient to avoid alcohol and other CNS-depressant drugs during therapy and to consult a health care professional before taking other Rx or OTC medications or herbal products.

Continued on the following page

- Instruct female patients to notify health care professional if pregnancy is planned or suspected or if they plan to breast-feed an infant.
- Caution patients that escitalopram should not be used for at least 14 days after discontinuing MAO inhibitors, and at least 14 days should be allowed after stopping escitalopram before starting an MAO inhibitor.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Increased sense of well-being
 - Renewed interest in surroundings. May require 1–4 wk of therapy to obtain antidepressant effects.

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imipramine

(im-**ip**-ra-meen)

Apo-Imipramine, Impril, Norfranil, Novopramine, Tipramine, Tofranil, Tofranil PM

CLASSIFICATION(S):

Therapeutic: antidepressants

Pharmacologic: tricyclic antidepressants

Pregnancy Category C

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INDICATIONS

- Various forms of depression (with psychotherapy)
- Enuresis in children.
- **Unlabelled Uses:**
 - Adjunct in the management of chronic pain, incontinence (in adults), vascular headache prophylaxis, and cluster headache.

ACTION

- Potentiates the effect of serotonin and norepinephrine
- Has significant anticholinergic properties.
- **Therapeutic Effects:**
 - Antidepressant action that develops slowly over several weeks.

PHARMACOKINETICS

Absorption: Well absorbed from the GI tract.

Distribution: Widely distributed. Probably crosses the placenta and enters breast milk.

Protein Binding: 89–95%.

Metabolism and Excretion: Extensively metabolized by the liver, mostly on first pass; some conversion to active compounds. Undergoes enterohepatic recirculation and secretion into gastric juices.

Half-life: 8–16 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Cross-sensitivity with other antidepressants may occur
- Narrow-angle glaucoma
- Hypersensitivity to tartrazine or sulfites (in some preparations)
- Pregnancy and lactation.

Use Cautiously in:

- Geriatric patients (more susceptible to adverse reactions)
- Pre-existing cardiovascular disease
- Geriatric men with prostatic hyperplasia (more susceptible to urinary retention)
- Seizures or history of seizure disorder.

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: drowsiness, fatigue, agitation, confusion, hallucinations, insomnia.

EENT: blurred vision, dry eyes.

CV: **ARRHYTHMIAS** hypotension, ECG changes.

Continued on the following page

GI: constipation, dry mouth, nausea, paralytic ileus.

GU: urinary retention.

Derm: photosensitivity.

Endo: gynecomastia.

Hemat: blood dyscrasias.

INTERACTIONS

Drug–Drug:

- May cause hypotension, tachycardia, and potentially fatal reactions when used with MAO inhibitors (avoid concurrent use—discontinue 2 wk prior to imipramine)
- Concurrent use with SSRI antidepressants may result in increased toxicity and should be avoided (fluoxetine should be stopped 5 wk before)
- Concurrent use with clonidine may result in hypertensive crisis and should be avoided
- Imipramine is metabolized in the liver by the cytochrome P450 2D6 enzyme and its action may be affected by drugs that compete for metabolism by this enzyme including other antidepressants, phenothiazines, carbamazepine, class 1C antiarrhythmics (propafenone, flecainide); when used concurrently, dosage reduction of one or the other or both may be necessary. Concurrent use of other drugs that inhibit the activity of the enzyme, including cimetidine, quinidine, amiodarone, and ritonavir, may result in increased effects of imipramine
- May prevent the therapeutic response to guanethidine
- Concurrent use with levodopa may result in delayed/decreased absorption of levodopa or hypertension
- Blood levels and effects may be decreased by rifamycins
- Concurrent use with sparfloxacin increases the risk of adverse cardiovascular reactions
- Additive CNS depression with other CNS depressants including alcohol, antihistamines, clonidine, opioid analgesics, and sedative/hypnotics

- Barbiturates may alter blood levels and effects
- Adrenergic and anticholinergic side effects may be additive with other agents having these properties
- Phenothiazines or oral contraceptives increase levels and may cause toxicity
- Cigarette smoking (nicotine) may increase metabolism and alter effects.

Drug–Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can increase CNS depression
- Increased anticholinergic effects with angel's trumpet, jimson weed, and scopolia.

ROUTE AND DOSAGE

- PO (Adults): 25–50 mg 3–4 times daily (not to exceed 300 mg/day); total daily dose may be given at bedtime.
- PO (Geriatric Patients): 25 mg at bedtime initially, up to 100 mg/day in divided doses.
- PO (Children >12 yr): Antidepressant—25–50 mg/day in divided doses (not to exceed 100 mg/day).
- PO (Children 6–12 yr): Antidepressant—10–30 mg/day in 2 divided doses.
- PO (Children >6 yr): Enuresis—25 mg once daily 1 hr before bedtime; increase if necessary by 25 mg at weekly intervals to 50 mg in children <12 yr, up to 75 mg in children >12 yr.
- IM (Adults): Up to 100 mg/day in divided doses (not to exceed 300 mg/day).

AVAILABILITY

- **Tablets:** 10 mg^{Rx}, 25 mg^{Rx}, 50 mg^{Rx}, 75 mg^{Rx}
- **Cost:** Tofranil—10 mg \$34.89/100, 25 mg \$56.82/100, 50 mg \$100.84/100; generic—10 mg \$5.92/100, 25 mg \$7.84/100, 50 mg \$10.83/100
- **Capsules:** 75 mg^{Rx}, 100 mg^{Rx}, 125 mg^{Rx}, 150 mg^{Rx}
- **Injection:** 12.5 mg/ml^{Rx}.

Continued on the following page

TIME/ACTION PROFILE (antidepressant effect)

	ONSET	PEAK	DURATION
PO, IM	hours	2–6 wk	weeks

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Monitor blood pressure and pulse rate prior to and during initial therapy.
 - Monitor baseline and periodic ECGs in elderly patients or patients with heart disease and before increasing dosage with children treated for enuresis. May cause prolonged PR and QT intervals and may flatten T waves.
- **Depression:** Assess mental status frequently. Confusion, agitation, and hallucinations may occur during initiation of therapy and may require dosage reduction. Monitor mood changes. Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- **Enuresis:** Assess frequency of bedwetting throughout therapy.
- **Pain:** Assess location, duration, and severity of pain periodically throughout therapy.
- **Lab Test Considerations:** Assess leukocyte and differential blood counts and renal and hepatic functions prior to and periodically during prolonged or high-dose therapy.
 - Serum levels may be monitored in patients who fail to respond to usual therapeutic dose. Therapeutic plasma concentration range for depression is 150–300 ng/ml.
 - May cause alterations in blood glucose levels.
- **Toxicity and Overdose:** Symptoms of acute overdose include disturbed concentration, confusion, restlessness, agitation, seizures, drowsiness, mydriasis, arrhythmias, fever, hallucinations, vomiting, and dyspnea.
 - Treatment of overdose includes gastric lavage, activated charcoal, and a stimulant cathartic. Maintain respiratory

and cardiac function (monitor ECG for at least 5 days) and temperature. Medications may include digoxin for CHF, antiarrhythmics, and anticonvulsants.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Urinary elimination, impaired (Indications).

IMPLEMENTATION

- **General:** Do not confuse imipramine with desipramine.
 - Dose increases should be made at bedtime because of sedation. Dose titration is a slow process; may take weeks to months. May be given as a single dose at bedtime to minimize sedation during the day.
- **PO:** Administer medication with or immediately following a meal to minimize gastric irritation.
- **IM:** May be slightly yellow or red in color. Crystals may develop if solution is cool; place ampule under warm running water for 1 min to dissolve.

PATIENT/FAMILY TEACHING

- **General:** Instruct patient to take medication exactly as directed. If a dose is missed, take as soon as possible unless almost time for next dose; if regimen is a single dose at bedtime, do not take in the morning because of side effects. Advise patient that drug effects may not be noticed for at least 2 wk. Abrupt discontinuation may cause nausea, vomiting, diarrhea, headache, trouble sleeping with vivid dreams, and irritability.
 - May cause drowsiness and blurred vision. Caution patient to avoid driving and other activities requiring alertness until response to drug is known.
 - Instruct patient to notify health care professional if visual changes occur. Inform patient that periodic glaucoma testing may be needed during long-term therapy.
 - Caution patient to change positions slowly to minimize orthostatic hypotension.

Continued on the following page

- Advise patient to avoid alcohol or other CNS depressant drugs during therapy and for at least 3–7 days after therapy has been discontinued.
- Instruct patient to notify health care professional if urinary retention occurs or if dry mouth or constipation persists. Sugarless candy or gum may diminish dry mouth and an increase in fluid intake or bulk may prevent constipation. If symptoms persist, dose reduction or discontinuation may be necessary. Consult health care professional if dry mouth persists for more than 2 wk.
- Caution patient to use sunscreen and protective clothing to prevent photosensitivity reactions.
- Inform patient of need to monitor dietary intake, as possible increase in appetite may lead to undesired weight gain. Inform patient that increased amounts of riboflavin in the diet may be required; consult health care professional.
- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- Therapy for depression is usually prolonged. Emphasize the importance of follow-up exams to evaluate progress.

- **Children:** Inform parents that the side effects most likely to occur include nervousness, insomnia, unusual tiredness, and mild nausea and vomiting. Notify health care professional if these symptoms become pronounced.
 - Advise parents to keep medication out of reach of children to prevent inadvertent overdose.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Increased sense of well-being
 - Renewed interest in surroundings
 - Increased appetite
 - Improved energy level
 - Improved sleep in patients treated for depression. Patient may require 2–6 wk of therapy before full therapeutic effects of medication are noticeable
- Control of bedwetting in children >6 yr
- Decrease in chronic neurogenic pain.

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lamotrigine

(la-moe-tri-jeen) Lamictal

CLASSIFICATION(S):

Therapeutic: anticonvulsants

Pregnancy Category C

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INDICATIONS

- Adjunct treatment of partial seizures in adults with epilepsy
- Lennox-Gastaut syndrome
- Conversion to monotherapy in adults with partial seizures receiving a single enzyme-inducing antiepileptic drug.
- Maintenance treatment of bipolar disorder

ACTION

- Stabilizes neuronal membranes by inhibiting sodium transport.
- **Therapeutic Effects:**
 - Decreased incidence of seizures.
 - Delayed time to recurrence of mood episodes.

PHARMACOKINETICS

Absorption: 98% absorbed following oral administration.

Distribution: Enters breast milk. Highly bound to melanin-containing tissues (eyes, pigmented skin).

Metabolism and Excretion: Mostly metabolized by the liver to inactive metabolites; 10% excreted unchanged by the kidneys.

Half-life: 25.4 hr (during chronic therapy of lamotrigine alone).

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Lactation.

Use Cautiously in:

- Patients with reduced renal function (lower maintenance doses may be required)
- Patients with impaired cardiac function
- Patients with impaired hepatic function
- Pregnancy or children <16 yr (safety not established as monotherapy; may be used in patients 2–16 yr with Lennox-Gastaut syndrome).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: ataxia, dizziness, headache, behavior changes, depression, drowsiness, insomnia, tremor.

EENT: blurred vision, double vision, rhinitis.

GI: nausea, vomiting.

GU: vaginitis.

Derm: photosensitivity, rash.

Continued on the following page

MS: arthralgia.

Misc: allergic reactions including Stevens-Johnson syndrome.

INTERACTIONS

Drug-Drug:

- Concurrent use with **carbamazepine** may result in ↓ levels of lamotrigine and ↑ levels of an active metabolite of carbamazepine
- Lamotrigine levels are ↓ by concurrent use of **phenobarbital**, **phenytoin**, or **primidone**
- Concurrent use with **valproic acid** results in a twofold ↑ in lamotrigine levels and a ↓ in valproic acid level (lamotrigine dose should be ↓ by at least 50%).

ROUTE AND DOSAGE

Epilepsy

- *In combination with Other Antiepileptic Agents*
- **PO (Adults >12 yr):** Patients taking carbamazepine, phenobarbital, phenytoin, or primidone—50 mg daily as a single dose for first 2 wk, then 50 mg twice daily for next 2 wk; then increase by 100 mg/day on a weekly basis to maintenance dose of 150–250 mg twice daily (not to exceed 500 mg/day). Patients taking carbamazepine, phenobarbital, phenytoin, or primidone with valproic acid—25 mg every other day for first 2 wk, then 25 mg once daily for next 2 wk; then increase by 25–50 mg/day every 1–2 wk to maintenance dose of 50–75 mg twice daily (not to exceed 200 mg/day).
- **PO (Children 2–12 yr):** Patients taking carbamazepine, phenobarbital, phenytoin, or primidone—0.6 mg/kg/day in 2 divided doses (rounded down to nearest 5 mg) for first 2 wk, then 1.2 mg/kg in 2 divided doses (rounded down to nearest 5 mg) for next 2 wk; then increase by 1.2 mg/kg/day (rounded down to nearest 5 mg) q 1–2 wk to maintenance dose of 5–15 mg/kg day (not to exceed 400

mg/day in 2 divided doses). Patients taking carbamazepine, phenobarbital, phenytoin, or primidone with valproic acid—0.15 mg/kg/day in 1–2 divided doses (rounded down to nearest 5 mg) for first 2 wk; if initial calculated dose is 2.5–5 mg/day, then initial dose should be 5 mg every other day for 2 wk). Then 0.3 mg/kg in 1–2 divided doses (rounded down to nearest 5 mg) for next 2 wk; then increase by 0.3 mg/kg/day (rounded down to nearest 5 mg) q 1–2 wk to maintenance dose of 1–5 mg/kg day (not to exceed 200 mg/day in 1–2 divided doses).

- *Conversion to Monotherapy*

- **PO (Adults ≥16 yr):** 50 mg/day for 2 wk, then 50 mg twice daily for 2 wk, then increase by 100 mg/day q 1–2 wk to maintenance dose of 300–500 mg/day in 2 divided doses; when target level is reached, decrease other antiepileptic by 20% weekly over 4 wk.

Bipolar disorder

- *Escalation regimen*
- **PO (Adults):** Patients not taking carbamazepine, valproate or other enzyme-inducing drugs—25 mg/day for 2 wk, then 50 mg/day for 2 wk, then 100 mg/day for 1 wk, then 200 mg/day; Patients taking valproate—25 mg every other day for 2 wk, then 25 mg/day for 2 wk, then 50 mg/day for one wk, then 100 mg/day; Patients taking carbamazepine (or other enzyme inducers), but not taking valproate 50 mg/day for 2 wk, then 100 mg/day (in divided doses) for 2 wk, then 200 mg/day (in divided doses) for one wk, then 300 mg/day (in divided doses) for one week, then up to 400 mg/day (in divided doses).
- *Dosage adjustment following discontinuation of other psychotropics*
- **PO (Adults):** Following discontinuation of other psychotropics—maintain previous dose; following discontinuation of valproate—100 mg/day, then increase to 150 mg/day for one wk, then 200 mg/day; following discontinuation of car-

Continued on the following page

bamazepine or other enzyme-inducers—400 mg/day for one wk, then 300 mg/day for one wk, then 200 mg/day.

AVAILABILITY

- **Tablets:** 25 mg^{Rx}, 100 mg^{Rx}, 150 mg^{Rx}, 200 mg^{Rx}
- **Chewable dispersible tablets:** 2 mg^{Rx}, 5 mg^{Rx}, 25 mg^{Rx}.

TIME/ACTION PROFILE (blood levels)

	ONSET	PEAK	DURATION
PO	unknown	1.4–4.8 hr	unknown

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Assess patient for skin rash frequently during therapy. Discontinue lamotrigine at first sign of rash; may be life-threatening. Stevens-Johnson syndrome or toxic epidermal necrolysis may develop. Rash usually occurs during the initial 2–8 wk of therapy and is more frequent in patients taking multiple antiepileptic agents, especially valproic acid, and much more frequent in patients <16 yr.
- **Seizures:** Assess location, duration, and characteristics of seizure activity.
- **Bipolar disorders:** Assess mood, ideation, and behaviors frequently. Initiate suicide precautions if indicated.
- **Lab Test Considerations:** Lamotrigine plasma concentrations may be monitored periodically during therapy, especially in patients concurrently taking other anticonvulsants. Therapeutic plasma concentration range has not been established.

POTENTIAL NURSING DIAGNOSES

- Skin integrity, risk for impaired (Adverse Reactions).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse lamotrigine (Lamictal) with terbinafine (Lamisil), maprotiline (Ludiomil), diphenoxylate/atropine (Lomotil) or lamivudine (Epivir).
- **PO:** May be administered without regard to meals.
 - Lamotrigine should be discontinued gradually over at least 2 wk, unless safety concerns require a more rapid withdrawal. Abrupt discontinuation may cause increase in seizure frequency.
- **Chewable/Dispersible Tablets:** May be swallowed whole, chewed, or dispersed in water or dispersed in fruit juice. If chewed, follow with water or fruit juice to aid in swallowing.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed. Take missed doses as soon as possible unless almost time for next dose. Do not double doses. Do not discontinue abruptly; may cause increase in frequency of seizures.
- Advise patient to notify health care professional immediately if skin rash occurs or if frequency of seizures increases.
- May cause dizziness, drowsiness, and blurred vision. Caution patient to avoid driving or activities requiring alertness until response to medication is known. Do not resume driving until physician gives clearance based on control of seizure disorder.
- Caution patient to wear sunscreen and protective clothing to prevent photosensitivity reactions.
- Advise patient to notify health care professional if pregnancy is planned or suspected or if patient intends to breastfeed or is breastfeeding.

Continued on the following page

- Instruct patient to notify health care professional of medication regimen prior to treatment or surgery.
- Advise patient to carry identification at all times describing disease process and medication regimen.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in the frequency of or cessation of seizures.
- Decreased incidence of mood swings in bipolar disorders

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lithium

(lith-ee-um)

Carbolith, Duralith, Eskalith, Eskalith-CR, Lithizine, Lithobid, Lithonate, Lithotabs

CLASSIFICATION(S):

Therapeutic: antimanic

Pregnancy Category D

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INDICATIONS

- Bipolar affective disorders (treatment of acute manic episodes and prophylaxis against recurrence).

ACTION

- Alters cation transport in nerve and muscle
- May also influence reuptake of neurotransmitters.
- **Therapeutic Effects:**
 - Prevents/decreases incidence of acute manic episodes

PHARMACOKINETICS

Absorption: Completely absorbed after oral administration.

Distribution: Widely distributed into many tissues and fluids; CSF levels are 50% of plasma levels. Crosses the placenta; enters breast milk.

Metabolism and Excretion: Excreted almost entirely unchanged by the kidneys.

Half-life: 20–27 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Severe cardiovascular or renal disease

- Dehydrated or debilitated patients
- Should be used only where therapy, including blood levels, may be closely monitored
- Some products contain alcohol or tartrazine and should be avoided in patients with known hypersensitivity or intolerance.
- Pregnancy or lactation.

Use Cautiously in:

- Geriatric patients (initial dosage reduction recommended)
- Any degree of cardiac, renal, or thyroid disease
- Diabetes mellitus
- Children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **SEIZURES**, fatigue, headache, impaired memory, ataxia, confusion, dizziness, drowsiness, psychomotor retardation, restlessness, stupor.

EENT: aphasia, blurred vision, dysarthria, tinnitus.

CV: **ARRHYTHMIAS**, ECG changes, edema, hypotension.

Continued on the following page

GI: abdominal pain, anorexia, bloating, diarrhea, nausea, dry mouth, metallic taste.

GU: polyuria, glycosuria, nephrogenic diabetes insipidus, renal toxicity.

Derm: acneiform eruption, folliculitis, alopecia, diminished sensation, pruritus.

Endo: hypothyroidism, goiter, hyperglycemia, hyperthyroidism.

F and E: hyponatremia.

Hemat: leukocytosis.

Metab: weight gain.

MS: muscle weakness, hyperirritability, rigidity.

Neuro: tremors.

INTERACTIONS

Drug–Drug:

- May prolong the action of neuromuscular blocking agents
- ↑ risk of neurologic toxicity with haloperidol or molindone
- Diuretics, methyldopa, probenecid, fluoxetine, and NSAIDs may ↑ risk of toxicity
- Blood levels may be ↑ by ACE inhibitors
- Lithium may ↓ effects of chlorpromazine
- Chlorpromazine may mask early signs of lithium toxicity
- Hypothyroid effects may be additive with potassium iodide or antithyroid agents
- Aminophylline, phenothiazines, and drugs containing large amounts of sodium ↑ renal elimination and ↓ effectiveness
- Psyllium can ↓ lithium levels.

Drug–Natural:

- Caffeine-containing herbs (cola nut, guarana, mate, tea, coffee) may ↓ lithium serum levels and efficacy.

Drug–Food:

- Large changes in sodium intake may alter the renal elimination of lithium. ↑ sodium intake will ↑ renal excretion.

ROUTE AND DOSAGE

Precise dosing is based on serum lithium levels. 300 mg lithium carbonate contains 8–12 mEq lithium.

- **PO (Adults and children ≥12 yr):** Tablets/capsules—300–600 mg 3 times daily initially; usual maintenance dose is 300 mg 3–4 times daily. *Slow-release capsules*—200–300 mg 3 times daily initially; increased up to 1800 mg/day in divided doses. Usual maintenance dose is 300–400 mg 3 times daily. *Extended-release tablets*—450–900 mg twice daily or 300–600 mg 3 times daily initially; usual maintenance dose is 450 mg twice daily or 300 mg 3 times daily.
- **PO (Children <12 yr):** 15–20 mg (0.4–0.5 mEq)/kg/day in 2–3 divided doses; dosage may be adjusted weekly.

AVAILABILITY

- **Capsules:** 150 mg^{Rx}, 300 mg^{Rx}, 600 mg^{Rx}
- **Cost:** Eskalith—300 mg \$20.35/100; generic—\$9.38/90
- **Tablets:** 300 mg^{Rx}
- **Extended-release tablets:** 300 mg^{Rx}, 450 mg^{Rx}
- **Slow-release capsules:** 150 mg^{Rx}, 300 mg^{Rx}
- **Syrup:** 300 mg (8 mEq lithium)/5 ml^{Rx}

TIME/ACTION PROFILE (antimanic effects)

	ONSET	PEAK	DURATION
PO, PO-ER	5–7 days	10–21 days	days

NURSING IMPLICATIONS

ASSESSMENT

- Assess mood, ideation, and behaviors frequently. Initiate suicide precautions if indicated.
- Monitor intake and output ratios. Report significant changes in totals. Unless contraindicated, fluid intake of at least

Continued on the following page

Psychotropic Drugs: *lithium* (Cont'd)

2000–3000 ml/day should be maintained. Weight should also be monitored at least every 3 mo.

- **Lab Test Considerations:** Evaluate renal and thyroid function, WBC with differential, serum electrolytes, and glucose periodically during therapy.
- **Toxicity and Overdose:** Monitor serum lithium levels twice weekly during initiation of therapy and every 2–3 mo during chronic therapy. Draw blood samples in the morning immediately before next dose. Therapeutic levels range from 0.5 to 1.5 mEq/L.
 - Assess patient for signs and symptoms of lithium toxicity (vomiting, diarrhea, slurred speech, decreased coordination, drowsiness, muscle weakness, or twitching). If these occur, report before administering next dose.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Indications).
- Violence, risk for self-directed (Indications).
- Violence, risk for other-directed (Indications).
- Noncompliance (Patient/Family Teaching).

IMPLEMENTATION

- **General:** Do not confuse Lithobid (lithium) with Levid (hyoscyamine).
- **PO:** Administer with food or milk to minimize GI irritation. Extended-release preparations should be swallowed whole; do not break, crush, or chew.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication as directed, even if feeling well. Take missed doses as soon as remembered unless within 2 hr of next dose (6 hr if extended release).
- Lithium may cause dizziness or drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.

- Low sodium levels may predispose patient to toxicity. Advise patient to drink 2000–3000 ml fluid each day and eat a diet with consistent and moderate sodium intake. Excessive amounts of coffee, tea, and cola should be avoided because of diuretic effect. Avoid activities that cause excess sodium loss (heavy exertion, exercise in hot weather, saunas). Notify health care professional of fever, vomiting, and diarrhea, which also cause sodium loss.
- Advise patient that weight gain may occur. Review principles of a low-calorie diet.
- Instruct patient to consult health care professional before taking OTC medications or herbal products concurrently with this therapy.
- Advise patient to use contraception and to consult health care professional if pregnancy is suspected.
- Review side effects and symptoms of toxicity with patient. Instruct patient to stop medication and report signs of toxicity to health care professional promptly.
- Explain to patients with cardiovascular disease or over 40 yr of age the need for ECG evaluation before and periodically during therapy. Patient should inform health care professional if fainting, irregular pulse, or difficulty breathing occurs.
- Emphasize the importance of periodic lab tests to monitor for lithium toxicity.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Resolution of the symptoms of mania (hyperactivity, pressured speech, poor judgment, need for little sleep)
- Decreased incidence of mood swings in bipolar disorders
- Improved affect in unipolar disorders. Improvement in condition may require 1–3 wk.

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lorazepam

(lor-az-e-pam)

Apo-Lorazepam, Ativan, Novo-Lorazem, Nu-Loraz

CLASSIFICATION(S):

Therapeutic: analgesic adjuncts, antianxiety agents, sedative/hypnotics

Pharmacologic: benzodiazepines

Schedule IV

Pregnancy Category D

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INDICATIONS

- Adjunct in the management of anxiety or insomnia
- Preoperative sedation
- Decreases preoperative anxiety and provides amnesia.
- Unlabelled Uses:
 - IV: Antiemetic prior to chemotherapy
 - Management of status epilepticus.

ACTION

- Depresses the CNS, probably by potentiating GABA, an inhibitory neurotransmitter.
- **Therapeutic Effects:**
 - Sedation
 - Decreased anxiety
 - Decreased seizures.

PHARMACOKINETICS

Absorption: Well absorbed following oral administration. Rapidly and completely absorbed following IM administration. Sublingual absorption is more rapid than oral and is similar to IM.

Distribution: Widely distributed. Crosses the blood-brain barrier. Crosses the placenta; enters breast milk.

Metabolism and Excretion: Highly metabolized by the liver.

Half-life: 10–20 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Cross-sensitivity with other benzodiazepines may exist
- Comatose patients or those with pre-existing CNS depression
- Uncontrolled severe pain
- Narrow-angle glaucoma
- Pregnancy and lactation.

Use Cautiously in:

- Severe hepatic/renal/pulmonary impairment
- Myasthenia gravis

Continued on the following page

- History of suicide attempt or drug abuse
- Geriatric or debilitated patients (dosage reduction recommended)
- Hypnotic use should be short-term.

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, drowsiness, lethargy, hangover, headache, mental depression, paradoxical excitation.

EENT: blurred vision.

Resp: respiratory depression.

CV: *rapid IV use only*— **APNEA**, **CARDIAC ARREST**, bradycardia, hypotension.

GI: constipation, diarrhea, nausea, vomiting.

Derm: rashes.

Misc: physical dependence, psychological dependence, tolerance.

INTERACTIONS

Drug–Drug:

- Additive CNS depression with other CNS depressants including alcohol, antihistamines, antidepressants, opioid analgesics, and other sedative/hypnotics including other benzodiazepines
- May decrease the efficacy of **levodopa**
- **Smoking** may increase metabolism and decrease effectiveness
- **Probenecid** may decrease metabolism of lorazepam, enhancing its actions.

Drug–Natural:

- Concomitant use of **kava**, **valerian**, **skullcap**, **chamomile**, or **hops** can increase CNS depression.

ROUTE AND DOSAGE

- **PO (Adults):** *Anxiety*—1–3 mg 2–3 times daily (up to 10 mg/day). *Insomnia*—2–4 mg at bedtime.
- **PO (Geriatric Patients or Debilitated Patients):** *Anxiety*—0.5–2 mg/day in divided doses initially. *Insomnia*—0.25–1 mg initially, increased as needed.
- **IM (Adults):** *Preoperative sedation*—50 mcg (0.05 mg)/kg 2 hr before surgery (not to exceed 4 mg).
- **IV (Adults):** *Preoperative sedation*—44 mcg (0.044 mg)/kg (not to exceed 2 mg) 15–20 min before surgery. *Operative amnestic effect*—up to 50 mcg/kg (not to exceed 4 mg). *Antiemetic*—2 mg 30 min prior to chemotherapy; may be repeated q 4 hr as needed (unlabeled). *Anticonvulsant*—50 mcg (0.05 mg)/kg, up to 4 mg; may be repeated after 10–15 min (not to exceed 8 mg/12 hr; unlabeled).

AVAILABILITY

- **Tablets:** 0.5 mg^{Rx}, 1 mg^{Rx}, 2 mg^{Rx}
- **Cost:** *Ativan*—0.5 mg \$80.55/100, 1 mg \$104.90/100r, 2 mg \$152.91/100; *generic*—0.5 mg \$66.94/100, 1 mg \$85.23/100, 2 mg \$134.2/100
- **Concentrated solution:** 2 mg/ml^{Rx}
- **Injection:** 2 mg/ml^{Rx}, 4 mg/ml^{Rx}.

TIME/ACTION PROFILE (sedation)

	ONSET	PEAK	DURATION
PO	15–45 min	1–6 hr	up to 48 hr
IM	15–30 min	1–2 hr [†]	up to 48 hr
IV	rapid	15–20 min	up to 48 hr

[†]Amnestic response.

Continued on the following page

NURSING IMPLICATIONS

ASSESSMENT

- **Anxiety:** Assess degree and manifestations of anxiety prior to and periodically throughout therapy.
- Prolonged high-dose therapy may lead to psychological or physical dependence. Restrict amount of drug available to patient.
- **Status Epilepticus:** Assess location, duration, characteristics, and frequency of seizures.
- **Lab Test Considerations:** Patients on high-dose therapy should receive routine evaluation of renal, hepatic, and hematologic function.

POTENTIAL NURSING DIAGNOSES

- Anxiety (Indications).
- Injury, risk for (Indications, Side Effects).

IMPLEMENTATION

- **General:** Do not confuse Ativan (lorazepam) with Atarax (hydroxyzine).
 - Following parenteral administration, keep patient supine for at least 8 hr and observe closely.
- **PO:** Tablet may also be given sublingually (unlabeled) for more rapid onset.
- **IM:** Administer IM doses deep into muscle mass at least 2 hr before surgery for optimum effect.
- **Direct IV:** Dilute immediately before use with an equal amount of sterile water, D5W, or 0.9% NaCl for injection. Do not use if solution is colored or contains a precipitate.
- **Rate:** Administer direct IV, through Y-site at a rate of 2 mg over 1 min. Rapid IV administration may result in apnea, hypotension, bradycardia, or cardiac arrest.
- **Y-Site Compatibility:** ♦ acyclovir ♦ alatrovafloxacin ♦ albumin ♦ allopurinol ♦ amifostine ♦ amikacin ♦ amphotericin B cholesteryl sulfate ♦ atracurium ♦ bumetanide ♦ cefepime

- ♦ cefmetazole ♦ ciprofloxacin ♦ cisatracurium ♦ cisplatin ♦ cladribine ♦ clonidine ♦ cyclophosphamide ♦ cytarabine ♦ dexamethasone sodium phosphate ♦ diltiazem ♦ dobutamine ♦ docetaxel ♦ dopamine ♦ doxorubicin ♦ doxorubicin liposome ♦ epinephrine ♦ erythromycin lactobionate ♦ etomidate ♦ etoposide ♦ famotidine ♦ fentanyl ♦ filgrastim ♦ fluconazole ♦ fludarabine ♦ fosphenytoin ♦ furosemide ♦ gatifloxacin ♦ gentamicin ♦ granisetron ♦ haloperidol ♦ heparin ♦ hydrocortisone sodium succinate ♦ hydromorphone ♦ labetalol ♦ levofloxacin ♦ linezolid ♦ melphalan ♦ methotrexate ♦ metronidazole ♦ midazolam ♦ milrinone ♦ morphine ♦ nitroglycerin ♦ norepinephrine ♦ paclitaxel ♦ pancuronium ♦ piperacillin ♦ piperacillin/tazobactam ♦ potassium chloride ♦ propofol ♦ ranitidine ♦ remifentanyl ♦ tacrolimus ♦ teniposide ♦ thiotepa ♦ trimethoprim/sulfamethoxazole ♦ vancomycin ♦ vecuronium ♦ vinorelbine ♦ zidovudine.
- **Y-Site Incompatibility:** ♦ aldesleukin ♦ aztreonam ♦ floxacillin ♦ idarubicin ♦ imipenem/cilastatin ♦ omeprazole ♦ ondansetron ♦ sargramostim ♦ sufentanil.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed and not to skip or double up on missed doses. If medication is less effective after a few weeks, check with health care professional; do not increase dose. Abrupt withdrawal may cause tremors, nausea, vomiting, and abdominal and muscle cramps.
- May cause drowsiness or dizziness. Advise patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Instruct patient to contact health care professional immediately if pregnancy is planned or suspected.
- Emphasize the importance of follow-up exams to determine effectiveness of the medication.

Continued on the following page

EVALUATION**Effectiveness of therapy can be demonstrated by:**

- Increase in sense of well-being
 - Decrease in subjective feelings of anxiety without excessive sedation
- Reduction of preoperative anxiety

- Postoperative amnesia
- Improvement in sleep patterns. Need for continued therapy should be re-evaluated regularly. Minimum effective dose should be used.

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methylphenidate

(meth-ill-fen-i-date)

Concerta, Metadate CD, Metadate ER, Methylin, Methylin SR, PMS-Methylphenidate, Riphenidate, Ritalin, Ritalin LA, Ritalin-SR

CLASSIFICATION(S):

Therapeutic: central nervous system stimulants

Schedule II

Pregnancy Category C

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INDICATIONS

- Treatment of ADHD (adjunct)
- Symptomatic treatment of narcolepsy.
- Unlabelled Uses:
 - Management of some forms of refractory depression.

ACTION

- Produces CNS and respiratory stimulation with weak sympathomimetic activity.
- **Therapeutic Effects:**
 - Increased attention span in ADHD
 - Increased motor activity, mental alertness, and diminished fatigue in narcoleptic patients.

PHARMACOKINETICS

Absorption: Well absorbed after oral administration; absorption of sustained or extended-release tablet (SR) is delayed and provides continuous release.. *Metadate CD, Concerta, Ritalin LA*—provides initial rapid release followed by a second continuous release (biphasic release).

Distribution: Unknown.

Metabolism and Excretion: Mostly metabolized (80%) by the liver.

Half-life: 1–3 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Hyperexcitable states
- Hyperthyroidism
- Patients with psychotic personalities or suicidal or homicidal tendencies
- Glaucoma
- Motor tics
- Concurrent use or use within 14 days of MAO inhibitors.

Use Cautiously in:

- History of cardiovascular disease
- Hypertension
- Diabetes mellitus
- Geriatric or debilitated patients

Continued on the following page

Psychotropic Drugs: *methylphenidate* (Cont'd)

- Continual use (may result in psychological or physical dependence)
- Seizure disorders (may lower seizure threshold)
- Concerta product should be used cautiously in patients with esophageal motility disorders (may increase the risk of obstruction)
- Pregnancy or lactation (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: hyperactivity, insomnia, restlessness, tremor, dizziness, headache, irritability.

EENT: blurred vision.

CV: hypertension, palpitations, tachycardia, hypotension.

GI: anorexia, constipation, cramps, diarrhea, dry mouth, metallic taste, nausea, vomiting.

Derm: rashes.

Neuro: akathisia, dyskinesia.

Misc: fever, hypersensitivity reactions, physical dependence, psychological dependence, suppression of weight gain (children), tolerance.

INTERACTIONS

Drug–Drug:

- ↑ sympathomimetic effects with other **adrenergics**, including **vasoconstrictors**, and **decongestants**
- Use with **MAO inhibitors** or **vasopressors** may result in hypertensive crisis (concurrent use or use within 14 days of MAO inhibitors is contraindicated)
- May antagonize the hypotensive effect of **guanethidine**
- Metabolism of **warfarin**, **anticonvulsants**, and **tricyclic antidepressants** may be ↓ and effects ↑
- Avoid concurrent use with **pimozide** (may mask cause of tics)

- Concurrent use with intrathecal **clonidine** may result in serious adverse reactions.

Drug–Natural:

- Use with caffeine-containing herbs (**guarana**, **tea**, **coffee**) ↑ stimulant effect.

Drug–Food:

- Excessive use of caffeine-containing foods or beverages (**coffee**, **cola**, **tea**) may cause ↑ CNS stimulation.

ROUTE AND DOSAGE

- **PO (Adults):** 5–20 mg 2–3 times daily as prompt-release tablets. When maintenance dose is determined, may change to extended-release formulation
- **PO (Children >6 yr):** *Prompt release tablets*—0.3 mg/kg/dose or 2.5–5 mg before breakfast and lunch; increase by 5–10 mg at weekly intervals (not to exceed 60 mg/day or 2 mg/kg/day). When maintenance dose is determined, may change to extended-release formulation. *Ritalin SR*, *Metadate ER*— may be used in place of the Prompt-release tablets when the 8-hour dosage corresponds to the titrated 8-hour dosage of the Prompt-release tablets ; *Ritalin LA*—can be used in place of twice daily regimen given once daily at same total dose, or in place of SR product at same dose; *Concerta (patients who have not taken methylphenidate previously)*—18 mg once daily in the morning initially, may be titrated as needed up to 54 mg/day. *Concerta (patients are currently taking other forms of methylphenidate)*—18 mg once daily in the morning if previous dose was 5 mg 2–3 times daily or 20 mg daily as SR product, 36 mg once daily in the morning if previous dose was 10 mg 2–3 times daily or 40 mg daily as SR product, 54 mg once daily in the morning if previous dose was 15 mg 2–3 times daily or 60 mg once daily as SR product. *Metadate CD*—20 mg once daily. Dosage may be adjusted in weekly 20–mg increments to a maximum of 60 mg/day taken once daily in the morning.

Continued on the following page

AVAILABILITY

- **Prompt-release tablets:** 5 mg^{Rx}, 10 mg^{Rx}, 20 mg^{Rx}
- **Cost:** *Ritalin*—5 mg \$43.48/100, 10 mg \$61.98/100, 20 mg \$89.12/100; *generic*—5 mg \$33.40/100, 10 mg \$47.70/100, 20 mg \$68.25/100
- **Extended-release tablets (*Metadate ER*):** 10 mg^{Rx}, 20 mg^{Rx}
- **Cost:** 10 mg \$93.09/100, 20 mg \$88.65/100
- **Extended-release tablets (other):** 10 mg^{Rx}, 20 mg^{Rx}
- **Extended-release tablets (*Concerta*):** 18 mg^{Rx}, 27 mg^{Rx}, 36 mg^{Rx}, 54 mg^{Rx}
- **Cost:** 18 mg \$231.25/100, 36 mg \$243.75/100, 54 mg \$256.25/100
- **Extended-release tablets, others:** 10 mg^{Rx}, 20 mg^{Rx}
- **Cost:** *Ritalin SR*—\$138.42/100; *generic*—\$89.26/100.
- **Extended-release capsules (*Metadate CD*):** 20 mg^{Rx}
- **Cost:** \$34.68/30
- **Extended-release capsules (*Ritalin LA*):** 20 mg^{Rx}, 30 mg^{Rx}, 40 mg^{Rx}

TIME/ACTION PROFILE (CNS stimulation)

	ONSET	PEAK	DURATION
PO	unknown	1–3 hr	4–6 hr
PO-ER	unknown	unknown	up to 8 hr [†]

[†]depends on formulation

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Monitor blood pressure, pulse, and respiration before administering and periodically during therapy.
 - Monitor growth, both height and weight, in children on long-term therapy.

- May produce a false sense of euphoria and well-being. Provide frequent rest periods and observe patient for rebound depression after the effects of the medication have worn off.
- Methylphenidate has high dependence and abuse potential. Tolerance to medication occurs rapidly; do not increase dose.
- **ADHD:** Assess children for attention span, impulse control, and interactions with others. Therapy may be interrupted at intervals to determine whether symptoms are sufficient to continue therapy.
- **Narcolepsy:** Observe and document frequency of episodes.
- **Lab Test Considerations:** Monitor CBC, differential, and platelet count periodically in patients receiving prolonged therapy.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Side Effects).

IMPLEMENTATION

- **PO:** Administer with or after a meal. **Sustained-release tablets should be swallowed whole; do not crush, break, or chew.** *Medate CD* and *Ritalin LA* capsules may be opened and sprinkled on cool applesauce; entire mixture should be ingested immediately and followed by a drink of water. Do not store for future use.

PATIENT/FAMILY TEACHING

- **General:** Instruct patient to take medication as directed. If a dose is missed, take the remaining doses for that day at regularly spaced intervals; do not double doses. Take the last dose before 6 PM to minimize the risk of insomnia. Instruct patient not to alter dose without consulting health care professional. Abrupt cessation of high doses may cause extreme fatigue and mental depression.
 - Advise patient to check weight 2–3 times weekly and report weight loss to health care professional.

Continued on the following page

- May cause dizziness or blurred vision. Caution patient to avoid driving or activities requiring alertness until response to medication is known.
- Inform patient and/or parents that shell of Concerta tablet may appear in the stool. This is no cause for concern.
- Advise patient to avoid using caffeine-containing beverages concurrently with this therapy.
- Advise patient to notify health care professional if nervousness, insomnia, palpitations, vomiting, skin rash, or fever occurs.
- Inform patient that health care professional may order

periodic holidays from the drug to assess progress and to decrease dependence.

- Emphasize the importance of routine follow-up exams to monitor progress.
- **ADHD:** Advise parents to notify school nurse of medication regimen.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decreased frequency of narcoleptic symptoms
- Improved attention span and social interactions in ADHD.

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mirtazapine

(meer-taz-a-peen)

Remeron, Remeron Soltabs

CLASSIFICATION(S):

Therapeutic: antidepressants

Pharmacologic: tetracyclic antidepressants

Pregnancy Category C

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INDICATIONS

- Depression (with psychotherapy).

ACTION

- Potentiates the effects of norepinephrine and serotonin.
- **Therapeutic Effects:**
 - Antidepressant action, which may develop only over several weeks.

PHARMACOKINETICS

Absorption: Well absorbed but rapidly metabolized, resulting in 50% bioavailability.

Distribution: Unknown.

Protein Binding: 85%.

Metabolism and Excretion: Extensively metabolized by the liver (P450 2D6, 1A2 and 3A enzymes involved); metabolites excreted in urine (75%) and feces (15%).

Half-life: 20–40 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity.
- Concurrent MAO inhibitor therapy.

Use Cautiously in:

- History of seizures
- History of suicide attempt
- History of mania/hypomania
- Geriatric patients or patients with hepatic or renal impairment (may need lower doses)
- Pregnancy, lactation, or children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: drowsiness, abnormal dreams, abnormal thinking, agitation, anxiety, apathy, confusion, dizziness, malaise, weakness.

EENT: sinusitis.

Resp: dyspnea, increased cough.

CV: edema, hypotension, vasodilation.

GI: constipation, dry mouth, increased appetite, abdominal pain, anorexia, elevated liver enzymes, nausea, vomiting.

GU: urinary frequency.

Derm: pruritus, rash.

Continued on the following page

F and E: increased thirst.

Hemat: **AGRANULOCYTOSIS.**

Metab: weight gain, hypercholesterolemia, increased triglycerides.

MS: arthralgia, back pain, myalgia.

Neuro: hyperkinesia, hypesthesia, twitching.

Misc: flu-like syndrome.

INTERACTIONS

Drug–Drug:

- May cause hypertension, seizures, and death when used with MAO inhibitors; do not use within 14 days of MAO inhibitor therapy
- ↑ CNS depression with other CNS depressants, including alcohol and benzodiazepines
- Drugs affecting P450 enzymes CYP2D6, CYP1A2, and CYP3A4 may alter the effects of mirtazapine.

Drug–Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can ↑ CNS depression
- ↑ risk of serotonergic side effects including serotonin syndrome with St. John's wort and SAME.

ROUTE AND DOSAGE

- PO (Adults): 15 mg/day as a single bedtime dose initially; may be increased q 1–2 wk up to 45 mg/day.

AVAILABILITY

- **Tablets:** 15 mg^{Rx}, 30 mg^{Rx}, 45 mg^{Rx}
- **Cost:** 15 mg \$83.15/30, 30 mg \$85.65/30, 45 mg \$87.30/30.
- **Orally disintegrating tablets:** 15 mg^{Rx}, 30 mg^{Rx}, 45 mg^{Rx}
- **Cost:** 15 mg \$72.11/30, 30 mg \$74.28/30, 45 mg \$79.12/30.

TIME/ACTION PROFILE (antidepressant effect)

	ONSET	PEAK	DURATION
PO	1–2 wk	6 wk or more	unknown

NURSING IMPLICATIONS

ASSESSMENT

- Assess mental status frequently. Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- Monitor blood pressure and pulse rate periodically during initial therapy. Report significant changes.
- Monitor for seizure activity in patients with a history of seizures or alcohol abuse. Institute seizure precautions.
- **Lab Test Considerations:** Assess CBC and hepatic function before and periodically during therapy.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Anxiety (Indications).

IMPLEMENTATION

- **General:** May be given as a single dose at bedtime to minimize excessive drowsiness or dizziness.
 - May be taken without regard to food.
- For orally disintegrating tablets, do not attempt to push through foil backing; with dry hands, peel back backing and remove tablet. Immediately place tablet on tongue; tablet will dissolve in seconds, then swallow with saliva. Administration with liquid is not necessary.

PATIENT/FAMILY TEACHING

- Instruct patient to take mirtazapine exactly as directed. If a dose is missed, take as soon as remembered; if almost time for next dose, skip missed dose and return to regular

Continued on the following page

schedule. If single bedtime dose regimen is used, do not take missed dose in morning, but consult health care professional. Do not discontinue abruptly; gradual dosage reduction may be required.

- May cause drowsiness and dizziness. Caution patient to avoid driving and other activities requiring alertness until response to drug is known.
- Caution patient to change positions slowly to minimize orthostatic hypotension.
- Advise patient to avoid alcohol or other CNS depressant drugs during and for at least 3–7 days after therapy has been discontinued.
- Advise patient to notify health care professional if dry mouth, urinary retention, or constipation occurs. Frequent rinses, good oral hygiene, and sugarless candy or gum may diminish dry mouth. An increase in fluid intake, fiber, and exercise may prevent constipation.
- Inform patient of need to monitor dietary intake. Increase in appetite may lead to undesired weight gain.
- Advise patient to consult health care professional before taking any OTC cold remedies or herbal products with this medication.

- Advise patient to notify health care professional of medication regimen before treatment or surgery.
- Therapy for depression may be prolonged. Emphasize the importance of follow-up exam to monitor effectiveness and side effects.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Resolution of the symptoms of depression:
 - Increased sense of well-being
 - Renewed interest in surroundings
 - Increased appetite
 - Improved energy level
 - Improved sleep
 - Therapeutic effects may be seen within 1 wk, although several wk are usually necessary before improvement is observed.

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molindone

(moe-lin-done)

Moban

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pregnancy Category UK

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INDICATIONS

- Schizophrenia.

ACTION

- Blocks the effects of dopamine in the reticular activating and limbic systems in the brain.
- **Therapeutic Effects:**
 - Diminished psychoses associated with schizophrenic behavior.

PHARMACOKINETICS

Absorption: Rapidly absorbed following oral administration.

Distribution: Appears to be widely distributed; probably enters the CNS and enters breast milk.

Metabolism and Excretion: Mainly (>90%) metabolized by the liver. Small (<3%) amounts excreted unchanged by the kidneys.

Half-life: 1.5 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity to molindone

- Cross-sensitivity with other antipsychotics may exist
- Hypersensitivity to bisulfites, parabens, or alcohol (liquid preparation only).

Use Cautiously in:

- Geriatric or debilitated patients (lower initial doses recommended)
- Diabetes mellitus
- Respiratory disease
- Prostatic hypertrophy
- CNS tumors
- Epilepsy
- Intestinal obstruction
- Pregnancy, lactation, or children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **NEUROLEPTIC MALIGNANT SYNDROME**, extrapyramidal reactions, sedation, depression, dizziness, euphoria, headache, insomnia, tardive dyskinesia.

Continued on the following page

EENT: blurred vision, dry eyes, nasal congestion.

CV: hypotension, tachycardia.

GI: constipation, dry mouth, anorexia, drug-induced hepatitis, nausea.

Derm: photosensitivity, rashes.

Endo: galactorrhea, increased libido, irregular menses.

Misc: allergic reactions.

INTERACTIONS

Drug–Drug:

- Calcium in the formulation may decrease absorption of **phenytoin** or **tetracycline**
- Additive CNS depression with other CNS depressants, including **alcohol**, **antihistamines**, **antidepressants**, **MAO inhibitors**, **opioid analgesics**, and **sedative/hypnotics**
- Additive anticholinergic properties with **agents having anticholinergic effects**, including **phenothiazines**, **haloperidol**, **antihistamines**, **MAO inhibitors**, or **disopyramide**
- Encephalopathy may occur with **lithium**
- Molindone may mask early signs of **lithium** toxicity
- May negate the beneficial effects of **levodopa**.

Drug–Natural:

- Concomitant use of **kava**, **valerian**, **skullcap**, **chamomile**, or **hops** can increase CNS depression.

ROUTE AND DOSAGE

- **PO (Adults):** 50–75 mg/day in 3–4 divided doses initially; may be increased to 100 mg/day after 3–4 days. Usual maintenance dose is 5–25 mg 3–4 times daily. (Doses up to 225 mg/day in divided doses have been used in severe psychoses.)
- **PO (Adults —elderly or debilitated):** initiate therapy at lower doses.

AVAILABILITY

- **Tablets:** 5 mg^{Rx}, 10 mg^{Rx}, 25 mg^{Rx}, 50 mg^{Rx}, 100 mg^{Rx}
- **Concentrate (cherry):** 20 mg/ml in 120-ml bottles^{Rx}

TIME/ACTION PROFILE (peak = blood levels; duration = antipsychotic effects)

	ONSET	PEAK	DURATION
PO	unknown	1.5 hr	24–36 hr

NURSING IMPLICATIONS

ASSESSMENT

- Assess patient's mental status (orientation, mood, behavior, degree of sedation) prior to and periodically throughout therapy.
- Observe patient carefully when administering medication to ensure medication is actually taken and not hoarded.
- Assess fluid intake and bowel function. Increased bulk and fluids in the diet help minimize the constipating effects of this medication.
- Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait, rigidity, tremors; *dystonic*—muscle spasms, twisting motions, twitching, inability to move eyes, weakness of arms or legs). Immediately report the onset of these symptoms. Parkinsonian effects are more common in geriatric patients, may occur during the first few days of therapy, and increase with dose increases. Akathisia and dystonias are more common in younger and male patients and may occur within 24–48 hr of initiation of therapy. Notify physician or other health care professional if these symptoms occur, because

Continued on the following page

reduction in dosage or discontinuation of medication may be necessary. Trihexyphenidyl or diphenhydramine may be used to control these symptoms.

- Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities; lip smacking or puckering; puffing of cheeks; uncontrolled chewing; rapid or worm-like movements of tongue). Notify physician or other health care professional immediately if these symptoms occur, because these side effects may be irreversible.
- Molindone may lower seizure threshold. Institute seizure precautions for patients with a history of a seizure disorder.
- **Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, convulsions, diaphoresis, hypertension or hypotension, pallor, tiredness, severe muscle stiffness, loss of bladder control). Notify physician or other health care professional immediately if these symptoms occur.**
- Ocular examinations may be required periodically during high-dose or prolonged therapy to monitor for deposition of particulate matter on the lens or cornea.
- **Lab Test Considerations:** Monitor WBC periodically throughout therapy. WBC may be increased or decreased, but molindone therapy may be continued unless clinical symptoms of leukocytosis or leukopenia occur. However, if the WBC is <4000 without clinical symptoms, it is recommended that therapy be discontinued until WBC increases. Therapy should then be re-evaluated.
 - Liver function tests should be monitored periodically during therapy.
 - May cause alterations in BUN, RBCs, and serum glucose. These alterations are not clinically significant.
 - May cause elevated serum prolactin concentrations during chronic use.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Indications).
- Constipation (Side Effects).

- Knowledge, deficient, related to medication regimen (Patient/Family Teaching).

IMPLEMENTATION

- **PO:** Administer molindone with food or a full glass of milk or water to minimize gastric irritation. Liquid form may be administered undiluted or mixed with water, milk, fruit juice, or carbonated beverage.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed and not to take more or less than prescribed. If a dose is missed, take as soon as remembered but not within 2 hr of next dose; do not double up on missed doses. Consult health care professional prior to discontinuing molindone; gradual withdrawal may be necessary.
- Inform patient of possibility of extrapyramidal symptoms and tardive dyskinesia. Caution patient to report these symptoms immediately to health care professional.
- Instruct patient not to take molindone within 2 hr of antacids or medications for treating diarrhea.
- Advise patient to make position changes slowly to minimize orthostatic hypotension. Exercise, hot weather, or hot baths may increase hypotensive effects.
- Medication may cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Advise patient to use frequent mouth rinses, good oral hygiene, and sugarless gum or candy to minimize dry mouth. Notify health care professional if dry mouth persists for more than 2 wk.
- Advise patient to use sunscreen and protective clothing to prevent photosensitivity reactions.
- Instruct patient not to take OTC medications, especially cold or cough preparations, without consulting health care professional.

Continued on the following page

- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- Instruct patient to notify health care professional promptly if tremors, involuntary muscle twitching, or visual disturbances occur.
- Emphasize the importance of routine follow-up exams.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in hallucinations, insomnia, agitation, hostility, and delusions. May require several weeks of therapy to obtain optimal effects.

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monoamine oxidase (mao) inhibitors

phenelzine

(fen-el-zeen)

Nardil

tranylcypromine

(tran-ill-sip-roe-meen)

Parnate

CLASSIFICATION(S):

Therapeutic: antidepressants

Pharmacologic: monoamine oxidase (MAO) inhibitors

Pregnancy Category C

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INDICATIONS

- Treatment of neurotic or atypical depression, usually in conjunction with psychotherapy, in patients who may not tolerate other modes of therapy (tricyclic antidepressants, SSRIs, or electroconvulsive therapy).

ACTION

- Inhibit the enzyme monoamine oxidase, resulting in an accumulation of various neurotransmitters (dopamine, epinephrine, norepinephrine, and serotonin) in the body.
- **Therapeutic Effects:**
 - Improved mood in depressed patients.

PHARMACOKINETICS

Absorption: All are well absorbed from the GI tract.

Distribution: All cross the placenta and probably enter breast milk.

Metabolism and Excretion: All are mostly metabolized by the liver.

Half-life: Unknown.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Liver disease
- Severe renal disease
- Cerebrovascular disease
- Pheochromocytoma
- CHF
- History of headache
- Concurrent meperidine, concurrent SSRI antidepressants, nefazodone, or trazodone administration.

Continued on the following page

Use Cautiously in:

- Patients who may be suicidal or have a history of drug dependency
- Symptomatic cardiovascular disease
- Hyperthyroidism
- Seizure disorders
- Geriatric patients (increased risk of adverse reactions)
- Pregnancy, lactation, or children (safety not established).

Exercise Extreme Caution in:

- Surgery (should be discontinued several weeks before surgery if possible because of increased risk of unpredictable reactions).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **SEIZURES**, dizziness, headache, insomnia, restlessness, weakness, confusion, drowsiness.

EENT: blurred vision, glaucoma, nystagmus.

CV: **HYPERTENSIVE CRISIS**, arrhythmias, orthostatic hypotension, edema.

GI: diarrhea, abdominal pain, anorexia, constipation, dry mouth, nausea, vomiting.

GU: dysuria, urinary incontinence, urinary retention.

Derm: rashes.

Endo: hypoglycemia.

MS: arthralgia.

INTERACTIONS**Drug–Drug:**

- **Serious, potentially fatal adverse reactions may occur with concurrent use of other antidepressants (SSRIs, nefazodone, trazodone), carbamazepine, cyclobenzaprine, maprotiline,**

furazolidone, procarbazine, or selegiline. Avoid using within 2 wk of each other (wait 5 wk from end of fluoxetine therapy)

- **Hypertensive crisis may occur with amphetamines, methyl-dopa, levodopa, dopamine, epinephrine, norepinephrine, guanethidine, guanadrel, reserpine, or vasoconstrictors**
- **Hypertension or hypotension, coma, seizures, and death may occur with opioids (avoid use of meperidine within 14–21 days of MAO inhibitor therapy—decrease initial dose of other agents to 25% of usual dose)**
- **Concurrent use with dextromethorphan may produce hypertension, excitation, and hyperpyrexia; similar effects may occur with tryptophan (avoid concurrent use of tryptophan or initiate in very small doses)**
- **Hypertension may occur with concurrent use of buspirone; avoid using within 10 days of each other**
- **Excess CNS stimulation and hypertension may occur with methylphenidate**
- **Additive hypotension may occur with antihypertensives or spinal anesthesia**
- **Additive hypoglycemia may occur with insulins or oral hypoglycemic agents**
- **Doxapram may increase pressor response.**

Drug–Natural:

- **Serious, potentially fatal adverse effects (serotonin syndrome) may occur with concomitant use of St. John's wort and SAME**
- **Hypertensive crises may occur with large amounts of caffeine-containing herbs (cola nut, guarana, malt, coffee, tea)**
- **Insomnia, headache, tremor, hypomania may occur with ginseng.**

Drug–Food:

- **Hypertensive crisis may occur with ingestion of foods containing high concentrations of tyramine (see Appendix Q).**
- **Consumption of foods or beverages with high caffeine content increases the risk of hypertension and arrhythmias.**

Continued on the following page

ROUTE AND DOSAGE

Phenelzine

- PO (Adults): 15 mg 3 times daily; increase to 60–90 mg/day in divided doses, then gradually reduce to smallest effective dose (15 mg/day or every other day).
- PO (Geriatric Patients): 15 mg/day initially, with slow dose titration.

Tranlycypromine

- PO (Adults): 30 mg/day in 2 divided doses (morning and afternoon); after 2 wk can increase by 10 mg/day, at 1–3 wk intervals, up to 60 mg/day.
- PO (Geriatric Patients): 2.5–5 mg/day initially; increase every 3–4 days up to 45 mg/day.

AVAILABILITY

- Phenelzine
 - *Tablets:* 15 mg^{Rx}.
- Tranlycypromine
 - *Tablets:* 10 mg^{Rx}.

TIME/ACTION PROFILE (antidepressant effect)

	ONSET	PEAK	DURATION
Phenelzine	1–4 wk	2–6 wk	2 wk
Tranlycypromine	2 days–3 wk	2–3 wk	3–5 days

NURSING IMPLICATIONS

ASSESSMENT

- Assess mental status, mood changes, and anxiety level frequently. Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.

- Monitor blood pressure and pulse rate before and frequently throughout therapy. Report significant changes promptly.
- Monitor intake and output ratios and daily weight. Assess patient for peripheral edema and urinary retention.
- **Lab Test Considerations:** Assess hepatic function periodically during prolonged or high-dose therapy.
 - Monitor serum glucose closely in diabetic patients; hypoglycemia may occur.
- **Toxicity and Overdose:** Concurrent ingestion of tyramine-rich foods and many medications may result in a life-threatening hypertensive crisis. Signs and symptoms of hypertensive crisis include chest pain, tachycardia, severe headache, nausea and vomiting, photosensitivity, and enlarged pupils. Treatment includes IV phentolamine.
 - Symptoms of overdose include anxiety, irritability, tachycardia, hypertension or hypotension, respiratory distress, dizziness, drowsiness, hallucinations, confusion, seizures, fever, and diaphoresis. Treatment includes induction of vomiting or gastric lavage and supportive therapy as symptoms arise.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Noncompliance (Patient/Family Teaching).

IMPLEMENTATION

- **General:** Do not administer these medications in the evening because the psychomotor stimulating effects may cause insomnia or other sleep disturbances.
- **PO:** Tablets may be crushed and mixed with food or fluids for patients with difficulty swallowing.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed. If a dose is missed, take if remembered within 2 hr; otherwise, omit and return to regular dosage schedule. Medication should not be abruptly discontinued as withdrawal symp-

Continued on the following page

toms (nausea, vomiting, malaise, nightmares, agitation, psychosis, seizures) may occur.

- Caution patient to avoid alcohol, CNS depressants, OTC drugs, and foods or beverages containing tyramine (see Appendix Q) during and for at least 2 wk after therapy has been discontinued; they may precipitate a hypertensive crisis. Contact health care professional immediately if symptoms of hypertensive crisis develop.
- May cause dizziness or drowsiness. Caution patient to avoid driving and other activities requiring alertness until response to medication is known.
- Caution patient to change positions slowly to minimize orthostatic hypotension. Geriatric patients are at increased risk for this side effect.
- Advise patient to notify health care professional if dry mouth, urinary retention, or constipation occurs. Frequent rinses, good oral hygiene, and sugarless candy or gum may diminish dry mouth. An increase in fluid intake, fiber, and exercise may prevent constipation.
- Instruct patient to notify health care professional of severe headache, palpitations, chest or throat tightness, sweating, dizziness, neck stiffness, nausea, or vomiting.

- Advise patient to notify health care professional of medication regimen before treatment or surgery. If possible, therapy should be discontinued at least 2 wk before surgery.
- Instruct patient to carry identification describing medication regimen at all times.
- Emphasize the importance of participation in psychotherapy if recommended by health care professional and follow-up exams to evaluate progress. Ophthalmic testing should also be done periodically during long-term therapy.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Improved mood in depressed patients
 - Decreased anxiety
 - Increased appetite
 - Improved energy level
 - Improved sleep
 - Patients may require 1–4 wk of therapy before therapeutic effects of medication are seen.

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nefazodone

(neff-a-zoe-done)
Serzone

CLASSIFICATION(S):

Therapeutic: antidepressants

Pregnancy Category C

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INDICATIONS

- Major depression (in conjunction with psychotherapy).

ACTION

- Inhibits the reuptake of serotonin and norepinephrine by neurons
- Antagonizes alpha1-adrenergic receptors.
- **Therapeutic Effects:**
 - Antidepressant action, which may develop only over several weeks.

PHARMACOKINETICS

Absorption: Well absorbed but undergoes extensive and variable first-pass hepatic metabolism (bioavailability about 20%).

Distribution: Widely distributed; enters the CNS.

Protein Binding: ≥99%.

Metabolism and Excretion: Extensively metabolized. One metabolite (hydroxynefazodone) has antidepressant activity.

Half-life: *Nefazodone*—2–4 hr; *hydroxynefazodone*—1.5–4 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Concurrent MAO inhibitor therapy
- Active liver disease or baseline elevated serum transaminases.

Use Cautiously in:

- Geriatric patients (initiate therapy at lower doses)
- History of suicide attempt or drug abuse
- Underlying cardiovascular or cerebrovascular disease
- History of mania
- Pregnancy, lactation, or children <18 yr (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, insomnia, somnolence, agitation, confusion, weakness.

EENT: abnormal vision, blurred vision, eye pain, tinnitus.

Resp: dyspnea.

CV: bradycardia, hypotension.

Continued on the following page

GI: HEPATIC FAILURE, HEPATOTOXICITY, constipation, dry mouth, nausea, gastroenteritis.

GU: impotence.

Derm: rashes.

Hemat: decreased hematocrit.

INTERACTIONS

Drug–Drug:

- Serious, potentially fatal reactions may occur during concurrent use with MAO inhibitors (do not use concurrently or within 2 wk of MAO inhibitors; discontinue nefazodone at least 7 days before starting MAO inhibitor therapy)
- ↑ CNS depression with other CNS depressants including alcohol, antihistamines, opioid analgesics, and sedative/hypnotics
- May ↑ blood levels and effects of alprazolam or triazolam
- May increase serum digoxin levels
- Additive hypotension may occur with antihypertensives, nitrates, or acute ingestion of alcohol
- May ↑ risk of myopathy with HMG-CoA reductase inhibitors.

Drug–Natural:

- ↑ risk of serotonergic side effects including serotonin syndrome with St. John's wort and SAME
- Kava, valerian, or chamomile can ↑ CNS depression.

ROUTE AND DOSAGE

- PO (Adults): 100 mg twice daily initially; may be increased weekly up to 600 mg/day in 2 divided doses.
- PO (Geriatric Patients): 50 mg twice daily initially; may be increased weekly as tolerated.

AVAILABILITY

- **Tablets:** 50 mg^{Rx}, 100 mg^{Rx}, 150 mg^{Rx}, 200 mg^{Rx}, 250 mg^{Rx}
- **Cost:** 50 mg \$85.61/60, 100 mg \$87.67/60, 150 mg \$89.32/60, 200 mg \$91.00/60, 250 mg \$92.69/60.

TIME/ACTION PROFILE (antidepressant action)

	ONSET	PEAK	DURATION
PO	days–wks	several wk	unknown

NURSING IMPLICATIONS

ASSESSMENT

- Assess mental status and mood changes. Inform physician or other health care professional if patient demonstrates significant increase in anxiety, nervousness, or insomnia.
- Assess suicidal tendencies, especially in early therapy. Restrict amount of drug available to patient.
- Monitor blood pressure and pulse before and periodically during therapy.
- Monitor liver function tests prior to and routinely during therapy. Obtain LFTs at first sign of hepatic dysfunction (nausea, vomiting, abdominal pain, fatigue, anorexia, dark urine).
- **Lab Test Considerations:** May cause decrease in hematocrit and leukopenia.
 - Monitor liver function periodically. If serum AST or ALT levels are >3 times the upper limit of normal discontinue nefazodone.
 - May also cause hypercholesterolemia and hypoglycemia.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Injury, risk for (Side Effects).

Continued on the following page

IMPLEMENTATION

- **General:** Do not confuse Serozone (nefazodone) with Seroquel (quetiapine).
- PO: Administer doses twice daily.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication as directed. Several weeks may be required to obtain a full antidepressant response. Once response is obtained, therapy should be continued for at least 6 mo. If a dose is missed, take as soon as possible unless almost time for next dose. Do not double doses.
- May cause drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until response to the drug is known.
- Advise patient to make position changes slowly to minimize orthostatic hypotension.
- Caution patient to avoid taking alcohol or other CNS depressant drugs during therapy and not to take other prescription, OTC medications, or herbal products without consulting health care professional.
- Advise patient to notify health care professional immediately if signs of liver dysfunction (jaundice, anorexia, GI complaints, malaise) occur.

- Inform patient that frequent mouth rinses, good oral hygiene, and sugarless gum or candy may minimize dry mouth. If dry mouth persists for more than 2 wk, consult health care professional regarding use of saliva substitute.
- Instruct female patient to inform health care professional if pregnancy is planned or suspected or if breastfeeding.
- Instruct patient to notify health care professional of signs of allergy (rash, hives) or if agitation, blurred or other changes in vision, confusion, dizziness, unsteadiness, difficult or frequent urination, difficulty concentrating, or memory problems occur.
- Emphasize the importance of follow-up examinations to monitor progress. Encourage patient participation in psychotherapy.

EVALUATION**Effectiveness of therapy can be demonstrated by:**

- Increased sense of well-being
 - Renewed interest in surroundings. May require several weeks of therapy to obtain full response. Need for therapy should be periodically reassessed. Therapy is usually continued for 6 mo or more.

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olanzapine

(oh-lan-za-peen)

Zyprexa, Zyprexa Zydis

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pharmacologic: thienobenzodiazepines

Pregnancy Category C

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INDICATIONS

- Psychotic disorders including
 - Acute manic episodes associated with bipolar disorder (may be used with lithium or valproate)
 - long-term treatment/maintenance of schizophrenia.
- Unlabelled Uses:
 - Management of anorexia nervosa.

ACTION

- Antagonizes dopamine and serotonin type 2 in the CNS
- Also has anticholinergic, antihistaminic, and anti- α_1 -adrenergic effects.
- **Therapeutic Effects:**
 - Decreased manifestations of psychoses.

PHARMACOKINETICS

Absorption: Well absorbed but rapidly metabolized by first-pass effect, resulting in 60% bioavailability. Conventional tablets and orally disintegrating tablets are bioequivalent.

Distribution: Extensively distributed.

Protein Binding: 93%.

Metabolism and Excretion: Highly metabolized (mostly by the hepatic P450 CYP 1A2 system); 7% excreted unchanged in urine.

Half-life: 21–54 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Lactation.
- **Orally disintegrating tablets only:** Phenylketonuria (orally disintegrating tablets contain aspartame).

Use Cautiously in:

- Patients with hepatic impairment
- Geriatric patients (may require smaller doses)
- Cardiovascular or cerebrovascular disease
- History of seizures
- History of attempted suicide
- Prostatic hypertrophy
- Narrow-angle glaucoma
- History of paralytic ileus
- Pregnancy or children <18 yr (safety not established).

Continued on the following page

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **NEUROLEPTIC MALIGNANT SYNDROME**, **SEIZURES**, agitation, dizziness, headache, restlessness, sedation, weakness, dystonia, insomnia, mood changes, personality disorder, speech impairment, tardive dyskinesia.

EENT: amblyopia, rhinitis, increased salivation, pharyngitis.

Resp: cough, dyspnea.

CV: orthostatic hypotension, tachycardia, chest pain.

GI: constipation, dry mouth, abdominal pain, increased appetite, nausea.

GU: decreased libido, urinary incontinence.

Derm: photosensitivity.

Endo: diabetes mellitus, goiter.

F and E: increased thirst.

Metab: weight gain, weight loss.

MS: hypertonia, joint pain.

Neuro: tremor.

Misc: fever, flu-like syndrome.

INTERACTIONS

Drug-Drug:

- Effects may be ↓ by concurrent carbamazepine, omeprazole, or rifampin
- ↑ hypotension may occur with antihypertensives
- ↑ CNS depression may occur with concurrent use of alcohol or other CNS depressants
- May antagonize the effects of levodopa or other dopamine agonists.

ROUTE AND DOSAGE

- **PO (Adults —Most Patients):** *Schizophrenia*—5–10 mg/day initially; may increase at weekly intervals by 5 mg/day (not to exceed 20 mg/day). *Bipolar mania*—10–15 mg/day initially; may increase every 24 hr by 5 mg/day (not to exceed 20 mg/day).
- **PO (Adults —Debilited or Nonsmoking Female Patients ≥65 yr):** Initiate therapy at 5 mg/day.

AVAILABILITY

- **Tablets:** 2.5 mg^{Rx}, 5 mg^{Rx}, 7.5 mg^{Rx}, 10 mg^{Rx}, 15 mg^{Rx}, 20 mg^{Rx}
- **Cost:** 2.5 mg \$311.21/60, 5 mg \$367.57/60, 7.5 mg \$405.32/60, 10 mg \$558.72/60, 15 mg \$838.08/60, 20 mg \$612.72/30..
- **Orally disintegrating tablets (Zydis):** 5 mg^{Rx}, 5 mg^{Rx}, 10 mg^{Rx}, 15 mg^{Rx}, 20 mg^{Rx}
- **Cost:** —10 mg \$315.10/30

TIME/ACTION PROFILE (antipsychotic effects)

	ONSET	PEAK	DURATION
PO	unknown	1 wk	unknown

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Assess mental status (orientation, mood, behavior) before and periodically during therapy.
 - Monitor blood pressure (sitting, standing, lying), ECG, pulse, and respiratory rate before and frequently during the period of dose adjustment.

Continued on the following page

Psychotropic Drugs: *olanzapine* (Cont'd)

- Observe patient carefully when administering medication to ensure that medication is actually taken and not hoarded.
- Assess fluid intake and bowel function. Increased bulk and fluids in the diet may help minimize constipation.
- Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait, rigidity, tremors; and *dystonic*—muscle spasms, twisting motions, twitching, inability to move eyes, weakness of arms or legs) every 2 mo during therapy and 8–12 wk after therapy has been discontinued. Report these symptoms if they occur, as reduction in dosagedose or discontinuation of medication may be necessary. Trihexyphenidyl or diphenhydramine may be used to control symptoms.
- Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities; lip smacking or puckering; puffing of cheeks; uncontrolled chewing; rapid or worm-like movements of tongue). Report immediately; may be irreversible.
- **Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, seizures, diaphoresis, hypertension or hypotension, pallor, tiredness, severe muscle stiffness, loss of bladder control). Notify physician or other health care professional immediately if these symptoms occur.**
- **Lab Test Considerations:** Evaluate CBC, liver function tests, and ocular examinations periodically during therapy. May cause ↓ platelets. May cause ↑ bilirubin, AST, ALT, GGT, CPK, and alkaline phosphatase.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Indications).
- Noncompliance (Patient/Family Teaching).

IMPLEMENTATION

- **General:** Do not confuse Zyprexa (*olanzapine*) with Celexa (*citalopram*) or Zyrtec (*cetirizine*).
- **PO:** May be administered without regard to meals.
 - For orally disintegrating tablets, peel back foil on blister, do not push tablet through foil. Using dry hands, remove from foil and place entire tablet in mouth. Tablet will disintegrate with or without liquid.

PATIENT/FAMILY TEACHING

- Advise patient to take medication as directed and not to skip doses or double up on missed doses. May need to discontinue gradually.
- Inform patient of possibility of extrapyramidal symptoms and tardive dyskinesia. Instruct patient to report these symptoms immediately to health care professional.
- Advise patient to change positions slowly to minimize orthostatic hypotension.
- Medication may cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to the medication is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Advise patient to use sunscreen and protective clothing when exposed to the sun. Extremes of temperature (exercise, hot weather, hot baths or showers) should also be avoided because this drug impairs body temperature regulation.
- Instruct patient to use frequent mouth rinses, good oral hygiene, and sugarless gum or candy to minimize dry mouth. Consult health care professional if dry mouth continues for >2 wk.
- Advise patient to notify health care professional of medication regimen before treatment or surgery.

Continued on the following page

- Instruct patient to notify health care professional promptly if sore throat, fever, unusual bleeding or bruising, rash, weakness, tremors, visual disturbances, dark-colored urine, or clay-colored stools occur.
- Emphasize the importance of routine follow-up exams and continued participation in psychotherapy as indicated.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in excitable, paranoid, or withdrawn behavior.

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oxazepam

(ox-az-e-pam)

Apo-Oxazepam, Novoxepam, Serax

CLASSIFICATION(S):

Therapeutic: antianxiety agents, sedative/hypnotics

Pharmacologic: benzodiazepines

Schedule IV

Pregnancy Category D

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INDICATIONS

- Management of anxiety
- Symptomatic treatment of alcohol withdrawal.

ACTION

- Depresses the CNS, probably by potentiating GABA, an inhibitory neurotransmitter.
- **Therapeutic Effects:**
 - Decreased anxiety
 - Diminished symptoms of alcohol withdrawal.

PHARMACOKINETICS

Absorption: Well absorbed following oral administration. Absorption is slower than with other benzodiazepines.

Distribution: Widely distributed. Crosses the blood-brain barrier. May cross the placenta and enter breast milk.

Metabolism and Excretion: Metabolized by the liver to inactive compounds.

Protein Binding: 97%.

Half-life: 5–15 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Cross-sensitivity with other benzodiazepines may exist
- Comatose patients or those with pre-existing CNS depression
- Uncontrolled severe pain
- Narrow-angle glaucoma
- Pregnancy and lactation
- Some products contain tartrazine and should be avoided in patients with known intolerance.

Use Cautiously in:

- Hepatic dysfunction
- History of suicide attempt or drug abuse
- Geriatric/debilitated patients (initial dosage reduction recommended)
- Severe chronic obstructive pulmonary disease
- Myasthenia gravis.

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

Continued on the following page

CNS: dizziness, drowsiness, confusion, hangover, headache, impaired memory, mental depression, paradoxical excitation, slurred speech.

EENT: blurred vision.

Resp: respiratory depression.

CV: tachycardia.

GI: constipation, diarrhea, drug-induced hepatitis, nausea, vomiting.

GU: urinary problems.

Derm: rashes.

Hemat: leukopenia.

Misc: physical dependence, psychological dependence, tolerance.

INTERACTIONS

Drug–Drug:

- Additive CNS depression with other CNS depressants, including alcohol, antihistamines, antidepressants, opioid analgesics, and other sedative/hypnotics (including other benzodiazepines)
- May decrease the therapeutic effectiveness of levodopa
- Hormonal contraceptives or phenytoin may decrease effectiveness
- Theophylline may decrease sedative effects of oxazepam.

Drug–Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can increase CNS depression.

ROUTE AND DOSAGE

- PO (Adults): *Antianxiety agent*—10–30 mg 3–4 times daily. *Sedative/hypnotic/management of alcohol withdrawal*—15–30 mg 3–4 times daily.
- PO (Geriatric Patients): 5 mg 1–2 times daily initially or 10 mg 3 times daily; may be increased as needed.

AVAILABILITY

- **Capsules:** 10 mg^{Rx}, 15 mg^{Rx}, 30 mg^{Rx}
- **Cost:** *Serax*—10 mg \$92.75/100, 15 mg \$121.25/100, 30 mg \$169.21/100; *generic*—10 mg \$75.31/100, 15 mg \$94.70/100, 30 mg \$136.98/100
- **Tablets:** 10 mg^{Rx}, 15 mg^{Rx}, 30 mg^{Rx}
- **Cost:** *Serax*—15 mg \$131.24/100.

TIME/ACTION PROFILE (sedation)

	ONSET	PEAK	DURATION
PO	45–90 min	unknown	6–12 hr

NURSING IMPLICATIONS

ASSESSMENT

- Assess patient for anxiety and level of sedation (ataxia, dizziness, slurred speech) periodically throughout therapy.
- Prolonged high-dose therapy may lead to psychological or physical dependence. Restrict the amount of drug available to patient.
- **Lab Test Considerations:** Monitor CBC and liver function tests periodically during prolonged therapy.
 - May cause decreased thyroidal uptake of sodium iodide ¹²³I and ¹³¹I.

POTENTIAL NURSING DIAGNOSES

- Anxiety (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Medication should be tapered at the completion of therapy. Sudden cessation of medication may lead to withdrawal (insomnia, irritability, nervousness, tremors).
- PO: Administer with food if GI irritation becomes a problem.

Continued on the following page

PATIENT/FAMILY TEACHING

- Instruct patient to take oxazepam exactly as directed. Missed doses should be taken within 1 hr; if remembered later, omit and return to regular dosing schedule. Do not double or increase doses. If dose is less effective after a few weeks, notify health care professional.
- May cause drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Advise patient to avoid the use of alcohol and to consult health care professional prior to the use of OTC preparations that contain antihistamines or alcohol.
- Advise patient to inform health care professional if pregnancy is planned or suspected.

- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- Emphasize the importance of follow-up exams to monitor effectiveness of medication.

EVALUATION**Effectiveness of therapy can be demonstrated by:**

- Decreased sense of anxiety
 - Increased ability to cope
- Prevention or relief of acute agitation, tremor, and hallucinations during alcohol withdrawal.

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paroxetine

(par-ox-e-teen)

Paxil, Paxil CR

CLASSIFICATION(S):

Therapeutic: antianxiety agents, antidepressants

Pharmacologic: selective serotonin reuptake inhibitors (SSRIs)

Pregnancy Category C

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INDICATIONS

- Treatment of:
 - Depression
 - Panic disorder
 - OCD
 - Social anxiety disorder
 - Generalized anxiety disorder
 - Post-traumatic stress disorder
- Generalized anxiety disorder (often in conjunction with psychotherapy)

ACTION

- Inhibits neuronal reuptake of serotonin in the CNS, thus potentiating the activity of serotonin; has little effect on norepinephrine or dopamine.
- **Therapeutic Effects:**
 - Antidepressant action
 - Decreased frequency of panic attacks, OCD, or anxiety.
 - Improvement in manifestations of post-traumatic stress disorder.

PHARMACOKINETICS

Absorption: Well absorbed (50–100%) following oral administration. Controlled-release tablets are enteric-coated and control medication release over 4–5 hr.

Distribution: Widely distributed throughout body fluids and tissues, including the CNS; enters breast milk.

Protein Binding: 95%.

Metabolism and Excretion: Highly metabolized by the liver (partly by P450 2D6 enzyme system); 2% excreted unchanged in urine.

Half-life: 21 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Concurrent MAO inhibitor therapy (may result in serious, potentially fatal reactions).

Use Cautiously in:

- Severe renal or hepatic impairment, geriatric or debilitated patients (start with smaller doses; daily dose should not be >40 mg)
- History of mania
- History or risk of suicide attempt
- Pregnancy, lactation, or children (safety not established).

Continued on the following page

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: anxiety, dizziness, drowsiness, headache, insomnia, weakness, agitation, amnesia, confusion, emotional lability, hangover, impaired concentration, malaise, mental depression, syncope.

EENT: blurred vision, rhinitis.

Resp: cough, pharyngitis, respiratory disorders, yawning.

CV: chest pain, edema, hypertension, palpitations, postural hypotension, tachycardia, vasodilation.

GI: constipation, diarrhea, dry mouth, nausea, abdominal pain, decreased appetite, dyspepsia, flatulence, increased appetite, taste disturbances, vomiting.

GU: ejaculatory disturbance, decreased libido, genital disorders, urinary disorders, urinary frequency.

Derm: sweating, photosensitivity, pruritus, rash.

Metab: weight gain, weight loss.

MS: back pain, myalgia, myasthenia, myopathy.

Neuro: tremor, myoclonus, paresthesia.

Misc: chills, fever.

INTERACTIONS**Drug-Drug:**

- **Serious, potentially fatal reactions** (hyperthermia, rigidity, myoclonus, autonomic instability, with fluctuating vital signs and extreme agitation, which may proceed to delirium and coma) may occur with concurrent **MAO inhibitor** therapy. MAO inhibitors should be stopped at least 14 days prior to paroxetine therapy. Paroxetine should be stopped at least 14 days prior to MAO inhibitor therapy

- May ↓ metabolism and ↑ effects of certain drugs that are **metabolized by the liver**, including other **antidepressants**, **phenothiazines**, **class IC antiarrhythmics**, **propranolol**, and **quinidine**. Concurrent use should be undertaken with caution
- **Cimetidine** ↑ blood levels
- **Phenobarbital** and **phenytoin** may ↓ effectiveness
- Concurrent use with **alcohol** is not recommended
- May ↓ the effectiveness of **digoxin**
- Concurrent use with **tryptophan** may result in headache, nausea, sweating, and dizziness
- May ↑ risk of bleeding with **warfarin** without altering INR time
- Concurrent use with **5-HT₁ agonist vascular headache suppressants** (**frovatriptan**, **naratriptan**, **rizatriptan**, **sumatriptan**, **zolmitriptan**) may result in weakness, hyperreflexia and incoordination.

Drug-Natural:

- ↓ risk of serotonergic side effects including serotonin syndrome with **St. John's wort** and **SAME**.

ROUTE AND DOSAGE**Depression**

- **PO (Adults):** 20 mg as a single dose in the morning; may be increased by 10 mg/day at weekly intervals (range 20–50 mg). *Controlled-release tablets*—25 mg once daily initially. May increase at weekly intervals by 1.25 mg, up to 62.5 mg/day.
- **PO (Geriatric Patients or Debilitated Patients):** 10 mg/day initially; may be slowly increased (not to exceed 40 mg/day). *Controlled-release tablets*—12.5 mg once daily initially; may be titrated up to 50 mg/day.

Obsessive-Compulsive Disorder

- **PO (Adults):** 20 mg/day initially; increase by 10 mg/day q wk up to 40 mg (range 40–60 mg/day).

Continued on the following page

Panic Disorder

- PO (Adults): 10 mg/day initially; increase by 10 mg/day q wk up to 40 mg (range 10–60 mg/day).

Social Anxiety Disorder

- PO (Adults): 20 mg/day.

Generalized anxiety disorder

- PO (Adults): 20 mg once daily initially; increase by 10 mg/day q wk up to 50 mg (range 20–50 mg/day)

Post-traumatic Stress Disorder

- PO (Adults): 20 mg/day initially, may be increased by 10 mg/day at weekly intervals up to 50 mg/day.

Hepatic Impairment

- PO (Adults): *Severe hepatic impairment*—10 mg/day initially; may be slowly increased (not to exceed 40 mg/day).
Controlled-release tablets—12.5 mg once daily initially; may be titrated up to 50 mg/day.

Renal Impairment

- PO (Adults): *Severe renal impairment*—10 mg/day initially; may be slowly increased (not to exceed 40 mg/day).
Controlled-release tablets—12.5 mg once daily initially; may be titrated up to 50 mg/day.

AVAILABILITY

- *Paroxetine hydrochloride tablets*: 10 mg^{Rx}, 20 mg^{Rx}, 30 mg^{Rx}, 40 mg^{Rx}
- **Cost**: 10 mg \$77.94/30, 20 mg \$81.32/30, 30 mg \$83.78/30, 40 mg \$88.50/30.
- *Paroxetine hydrochloride controlled-release tablets*: 12.5 mg^{Rx}, 25 mg^{Rx}, 37.5 mg^{Rx}
- *Paroxetine hydrochloride oral suspension (orange flavor)*: 10 mg/5 ml^{Rx}

- **Cost**: 10 mg/5 ml \$129.68/250-ml bottle.
- *Paroxetine mesylate tablets*: 10 mg^{Rx}, 20 mg^{Rx}, 30 mg^{Rx}, 40 mg^{Rx}

TIME/ACTION PROFILE (antidepressant action)

	ONSET	PEAK	DURATION
PO	1–4 wk	unknown	unknown

NURSING IMPLICATIONS

ASSESSMENT

- **General**: Monitor appetite and nutritional intake. Weigh weekly. Notify physician or other health care professional of continued weight loss. Adjust diet as tolerated to support nutritional status.
- **Depression**: Monitor mood changes. Inform physician or other health care professional if patient demonstrates significant increase in anxiety, nervousness, or insomnia.
- Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- **OCD**: Assess patient for frequency of obsessive-compulsive behaviors. Note degree to which these thoughts and behaviors interfere with daily functioning.
- **Panic Attacks**: Assess frequency and severity of panic attacks.
- **Social Anxiety Disorder**: Assess frequency and severity of episodes of anxiety.
- **Post-traumatic Stress Disorder**: Assess manifestations of post-traumatic stress disorder periodically during therapy.
- **Lab Test Considerations**: Monitor CBC and differential periodically during therapy. Report leukopenia or anemia.

Continued on the following page

Psychotropic Drugs: *paroxetine* (Cont'd)

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse paroxetine (Paxil) with paclitaxel (Taxol).
 - Periodically reassess dose and continued need for therapy.
- **PO:** Administer as a single dose in the morning. May administer with food to minimize GI irritation.
- **Controlled-release tablets should be swallowed whole. Do not crush, break, or chew.**

PATIENT/FAMILY TEACHING

- Instruct patient to take paroxetine as directed. Take missed doses as soon as possible and return to regular dosing schedule. Do not double doses. Caution patient to consult health care professional before discontinuing paroxetine. Daily doses should be decreased slowly. Abrupt withdrawal may cause dizziness, sensory disturbances, agitation, anxiety, nausea, and sweating.
- May cause drowsiness or dizziness. Caution patient to avoid driving and other activities requiring alertness until response to the drug is known.
- Advise patient to avoid alcohol or other CNS-depressant drugs during therapy and to consult with health care professional before taking other medications or herbal products with paroxetine.

- Inform patient that frequent mouth rinses, good oral hygiene, and sugarless gum or candy may minimize dry mouth. If dry mouth persists for more than 2 wk, consult health care professional regarding use of saliva substitute.
- Advise patient to wear sunscreen and protective clothing to prevent photosensitivity reactions.
- Instruct female patient to inform health care professional if pregnancy is planned or suspected or if she is breast-feeding.
- Advise patient to notify health care professional if headache, weakness, nausea, anorexia, anxiety, or insomnia persists.
- Emphasize the importance of follow-up exams to monitor progress. Encourage patient participation in psychotherapy.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Increased sense of well-being
 - Renewed interest in surroundings. May require 1–4 wk of therapy to obtain antidepressant effects
- Decrease in obsessive-compulsive behaviors
- Decrease in frequency and severity of panic attacks.
- Decrease in frequency and severity of episodes of anxiety.
- Improvement in manifestations of post-traumatic stress disorder.

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pemoline

(pem-oh-leen)

Cylert, PemADD, PemADD CT

CLASSIFICATION(S):

Therapeutic: central nervous system stimulants

Schedule IV

Pregnancy Category B

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INDICATIONS

- Adjunct in the management of ADHD in children >6 yr (not considered first-line treatment)
- Unlabelled Uses:
 - Treatment of fatigue or mental depression
 - Treatment of schizophrenia
 - As a stimulant in geriatric patients.

ACTION

- Produces CNS stimulation, which may be mediated by dopamine
- Causes increased motor activity and mental alertness, decreased fatigue, mild euphoria, and decreased appetite.
- **Therapeutic Effects:**
 - Increased attention span in children with ADHD.

PHARMACOKINETICS

Absorption: Absorbed from the GI tract.

Distribution: Unknown.

Metabolism and Excretion: Partially (50%) metabolized by the liver; 40% excreted unchanged by the kidneys.

Half-life: 9–14 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Liver disease.

Use Cautiously in:

- Renal impairment
- Unstable emotional status or psychoses
- History of seizure disorders
- Tics
- Pregnancy or lactation (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **SEIZURES**, insomnia, dizziness, dyskinesic movements, headache, irritability, mental depression, nervousness (increased doses).

CV: tachycardia (increased doses).

GI: **HEPATIC FAILURE**, anorexia, drug-induced hepatitis.

Continued on the following page

Derm: rash, sweating.

Metab: weight loss.

Misc: fever.

INTERACTIONS

Drug–Drug:

- May have additive CNS stimulation with other CNS stimulants or adrenergics, including decongestants.

ROUTE AND DOSAGE

- PO (Children >6 yr): 37.5 mg initially as single morning dose; may be increased by 18.75 mg at weekly intervals until optimum response is achieved (range 56.25–75 mg/day, not to exceed 112.5 mg/day).

AVAILABILITY

- *Tablets:* 18.75 mg^{Rx}, 37.5 mg^{Rx}, 75 mg^{Rx}
- *Chewable tablets (orange and peach flavor):* 37.5 mg^{Rx}.

TIME/ACTION PROFILE

	ONSET	PEAK	DURATION
PO (ADHD effects)	days–wks	2–3 wk	days
PO (CNS stimulation)	unknown	4 hr	8 hr

NURSING IMPLICATIONS

ASSESSMENT

- Assess attention span, motor or vocal tics, impulse control, and interactions with others in children with ADHD. Therapy may be interrupted at intervals to determine whether symptoms are sufficient to continue therapy.

- Monitor growth, both height and weight, in children on long-term therapy. Inform physician or other health care professional if growth inhibition occurs.
- **Lab Test Considerations:** Serum ALT should be monitored before and every 2 wk throughout therapy. If therapy is discontinued and then restarted, baseline liver function tests should be obtained and every-2-wk monitoring resumed. Pemoline should be discontinued if ALT is increased to a clinically significant level or > 2 times the upper limits of normal, or if clinical symptoms of liver failure occur. May cause elevated LDH, alkaline phosphatase, AST, and ALT levels.

POTENTIAL NURSING DIAGNOSES

- Sleep pattern, disturbed (Side Effects).
- Knowledge, deficient, related to medication regimen (Patient/Family Teaching).

IMPLEMENTATION

- **General:** When symptoms of ADHD are controlled in children, dosage reduction or interruption of therapy may be possible during summer months, on weekends, or when child is under less stress.
- PO: Administer daily dose in the morning. Chewable tablets must be chewed well before swallowing.

PATIENT/FAMILY TEACHING

- **General:** Instruct patient to take medication in morning to avoid sleep disturbances. If a dose is missed, take as soon as remembered; if remembered the next day, omit and continue on dosage schedule. Do not double doses. Pemoline has a high dependence and abuse potential. Tolerance occurs rapidly; do not increase dose. Consult health care professional before discontinuing. In long-term therapy, dosage should be reduced gradually to prevent withdrawal symptoms. Abrupt cessation of high doses may cause extreme fatigue and mental depression.

Continued on the following page

- May cause dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Advise patient to avoid intake of large amounts of caffeine.
- Advise patient of the potential for liver failure. Parents should sign a consent form regarding this risk before initiation of therapy. Instruct patient or parents to notify health care professional immediately if yellow skin or sclera, anorexia, GI complaints, pale stools or dark urine, palpitations, sweating, fever, or uncontrolled tremors develop or if nervousness, restlessness, insomnia, or dizziness become severe.
- Inform patient that periodic holidays from the drug may be used to assess progress and to decrease dependence.

- Emphasize the importance of routine follow-up exams to monitor progress.
- ADHD: Advise parents to notify school nurse of medication regimen.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Calming effect with decreased hyperactivity and prolonged attention span in children with ADHD. Significant beneficial effects may not be evident until the 3rd or 4th wk of therapy because clinical improvement is gradual.

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perphenazine

(per-fen-a-zeen)

Apo-Perphenazine, PMS Perphenazine, Trilafon

CLASSIFICATION(S):

Therapeutic: antiemetics, antipsychotics

Pharmacologic: phenothiazines

Pregnancy Category C

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INDICATIONS

- Management of schizophrenia
- Nausea, vomiting, or intractable hiccups (IV only).

ACTION

- Alters the effects of dopamine in the CNS
- Possesses significant anticholinergic and alpha-adrenergic blocking activity
- Blocks dopamine in the chemoreceptor trigger zone (CTZ).
- **Therapeutic Effects:**
 - Diminished signs and symptoms of psychoses
 - Decreased nausea, vomiting, or hiccups.

PHARMACOKINETICS

Absorption: Absorption from tablet is variable; may be better with oral liquid formulations; well absorbed following IM administration.

Distribution: Widely distributed, high concentrations in the CNS; crosses the placenta and enters breast milk.

Protein Binding: ≥90%.

Metabolism and Excretion: Highly metabolized by the liver and GI mucosa; some conversion to active compounds.

Half-life: 8.4–12.3 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Hypersensitivity to bisulfites (injection only)
- Known alcohol intolerance (concentrate only)
- Cross-sensitivity with other phenothiazines may occur
- Narrow-angle glaucoma
- Bone marrow depression
- Severe liver or cardiovascular disease
- Intestinal obstruction.

Use Cautiously in:

- Geriatric, emaciated, or debilitated patients (one half to one third of usual initial dose recommended)
- Pregnancy, lactation, or children <12 yr (safety not established)
- Diabetes mellitus
- Respiratory disease
- Prostatic hypertrophy
- CNS tumors
- History of seizure disorder.

Continued on the following page

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **NEUROLEPTIC MALIGNANT SYNDROME**, extrapyramidal reactions, sedation, tardive dyskinesia.

EENT: blurred vision, dry eyes, lens opacities.

CV: hypotension, tachycardia.

GI: constipation, dry mouth, anorexia, drug-induced hepatitis, ileus.

GU: discoloration of urine, urinary retention.

Derm: photosensitivity, pigment changes, rashes.

Endo: galactorrhea.

Hemat: **AGRANULOCYTOSIS**, leukopenia.

Metab: hyperthermia.

Misc: allergic reactions.

INTERACTIONS

Drug-Drug:

- Additive hypotension with antihypertensives, acute ingestion of alcohol, or nitrates
- Additive CNS depression with MAO inhibitors or other CNS depressants, including alcohol, antihistamines, opioid analgesics, sedative/hypnotics, and general anesthetics
- Additive anticholinergic effects with other drugs possessing anticholinergic properties, including antihistamines, antidepressants, atropine, disopyramide, haloperidol, and other phenothiazines
- Hypotension and tachycardia may occur with epinephrine
- Increased risk of agranulocytosis with antithyroid agents
- Increased risk of extrapyramidal reactions with lithium
- May mask lithium toxicity
- Antacids or lithium may decrease absorption of perphenazine

- May decrease antiparkinson effect of levodopa or bromocriptine.

Drug-Natural:

- Increased anticholinergic effects with angel's trumpet, jimson weed, and scopolia.

ROUTE AND DOSAGE

- **PO (Adults):** *Schizophrenia*—2–16 mg 2–4 times daily (not to exceed 64 mg/day). *Nausea/vomiting*—8–16 mg/day in divided doses (not to exceed 24 mg/day).
- **IM (Adults):** *Psychoses*—5–10 mg initially; may repeat q 6 hr (not to exceed 15–30 mg/day). *Nausea/vomiting*—5 mg initially; may be increased to 10 mg if needed.
- **IV (Adults):** *Severe nausea/vomiting/hiccups*—1 mg at 1–2-min intervals to a total of 5 mg or as an infusion at a rate not to exceed 0.5 mg/min (not to exceed 5 mg total dose).

AVAILABILITY

- *Tablets:* 2 mg^{Rx}, 4 mg^{Rx}, 8 mg^{Rx}, 16 mg^{Rx}
- *Syrup:* 2 mg/5 ml^{Rx}
- *Oral concentrate:* 16 mg/5 ml^{Rx}
- *Injection:* 5 mg/ml in 1-ml ampules^{Rx}
- *In combination with:* amitriptyline (Etrafon, Triavil)^{Rx}. See Appendix B

TIME/ACTION PROFILE (PO, IM = antipsychotic effect[†]; IV = antiemetic effect)

	ONSET	PEAK	DURATION
PO	2–6 hr	unknown	6–12 hr
IM	2–6 hr	unknown	6–12 hr
IV	rapid	unknown	unknown

[†]Optimal antipsychotic response may not occur for several wk.

Continued on the following page

Psychotropic Drugs: *perphenazine* (Cont'd)

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Assess patient's mental status (orientation, mood, behavior) prior to and periodically throughout therapy.
 - Monitor blood pressure (sitting, standing, lying), ECG, pulse, and respiratory rate prior to and frequently during the period of dosage adjustment. May cause Q-wave and T-wave changes in ECG.
 - Observe patient carefully when administering medication to ensure that medication is actually taken and not hoarded.
 - Assess fluid intake and bowel function. Increased bulk and fluids in the diet may help minimize constipation.
 - Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait, rigidity, tremors; and *dystonic*—muscle spasms, twisting motions, twitching, inability to move eyes, weakness of arms or legs) every 2 mo during therapy and 8–12 wk after therapy has been discontinued. Report these symptoms; reduction in dosage or discontinuation of medication may be necessary. Trihexyphenidyl or diphenhydramine may be used to control these symptoms.
 - Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities; lip smacking or puckering; puffing of cheeks; uncontrolled chewing; rapid or worm-like movements of tongue). Notify physician or other health care professional immediately if these symptoms occur, as these side effects may be irreversible.
 - **Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, convulsions, diaphoresis, hypertension or hypotension, pallor, tiredness, severe muscle stiffness, loss of bladder control). Notify physician or other health care professional immediately if these symptoms occur.**

- **Antiemetic:** Assess nausea and vomiting prior to and following perphenazine administration.
 - Monitor intake and output. Patients with severe nausea and vomiting may require IV fluids with electrolytes in addition to antiemetics.
- **Lab Test Considerations:** CBC, liver function tests, and ocular examinations should be evaluated periodically throughout therapy. May cause decreased hematocrit, hemoglobin, leukocytes, granulocytes, or platelets. May cause elevated bilirubin, AST, ALT, and alkaline phosphatase. Agranulocytosis occurs after 4–10 wk of therapy, with recovery 1–2 wk following discontinuation. May recur if medication is restarted. Liver function abnormalities may require discontinuation of therapy.
 - May cause false-positive or false-negative pregnancy test results and false-positive urine bilirubin test results.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Indications).
- Knowledge, deficient, related to medication regimen (Patient/Family Teaching).
- Noncompliance (Patient/Family Teaching).

IMPLEMENTATION

- **General:** To prevent contact dermatitis, avoid getting liquid preparations on hands, and wash hands thoroughly if spillage occurs.
 - Keep patient recumbent for at least 30 min following parenteral administration to minimize hypotensive effects.
 - Phenothiazines should be discontinued 48 hr before and not resumed for 24 hr following myelography, because they lower the seizure threshold.
- **PO:** Dilute concentrate just prior to administration in water, milk, carbonated beverage, soup, or tomato or fruit juice. Do not mix with beverages containing caffeine (cola, coffee), tannics (tea), or pectinates (apple juice). The concentration

Continued on the following page

should be 5 ml of perphenazine oral concentrate to 60 ml of diluent.

- **IM:** Inject deep into well-developed muscle. Keep patient in recumbent position and monitor for at least 30 min following injection. Slight yellow color will not alter potency; do not use if solution is dark or contains a precipitate.
- **Direct IV:** Dilute to a concentration of 0.5 mg/ml with 0.9% NaCl.
- **Rate:** Administer each 1 mg over at least 1—2 min. Has also been administered via slow continuous infusion at a rate not to exceed 0.5 mg/min; not to exceed 5 mg/dose.
- **Syringe Compatibility:** ◆ atropine ◆ butorphanol ◆ cimetidine ◆ dimenhydrinate ◆ diphenhydramine ◆ droperidol ◆ fentanyl ◆ meperidine ◆ metoclopramide ◆ morphine ◆ pentazocine ◆ ranitidine ◆ scopolamine.
- **Syringe Incompatibility:** ◆ midazolam ◆ pentobarbital.
- **Y-Site Compatibility:** ◆ acyclovir ◆ amikacin ◆ ampicillin ◆ cefamandole ◆ cefazolin ◆ cefotaxime ◆ cefoxitin ◆ cefuroxime ◆ cephalothin ◆ cephapirin ◆ chloramphenicol ◆ clindamycin ◆ doxycycline ◆ erythromycin lactobionate ◆ famotidine ◆ gentamicin ◆ kanamycin ◆ metronidazole ◆ mezlocillin ◆ minocycline ◆ nafcillin ◆ oxacillin ◆ penicillin G potassium ◆ piperacillin ◆ tacrolimus ◆ ticarcillin ◆ ticarcillin/clavulanate ◆ tobramycin ◆ trimethoprim/sulfamethoxazole ◆ vancomycin.
- **Y-Site Incompatibility:** ◆ cefoperazone.

PATIENT/FAMILY TEACHING

- Advise patient to take medication exactly as directed and not to skip doses or double up on missed doses. If a dose is missed, it should be taken as soon as remembered unless almost time for the next dose. If more than 2 doses/day are ordered, the missed dose should be taken within 1 hr of the scheduled time or omitted. Abrupt withdrawal may lead to gastritis, nausea, vomiting, dizziness, headache, tachycardia, and insomnia.
- Inform patient of possibility of extrapyramidal symptoms

and tardive dyskinesia. Instruct patient to report these symptoms immediately.

- Advise patient to make position changes slowly to minimize orthostatic hypotension.
- Medication may cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Advise patient to use sunscreen and protective clothing when exposed to the sun. Exposed surfaces may develop a blue-gray pigmentation, which may fade following discontinuation of the medication. Extremes in temperature should also be avoided, because this drug impairs body temperature regulation.
- Instruct patient to use frequent mouth rinses, good oral hygiene, and sugarless gum or candy to minimize dry mouth. Consult health care professional if dry mouth continues for >2 wk.
- Advise patient not to take perphenazine within 2 hr of antacids or antidiarrheal medication.
- Inform patient that this medication may turn urine a pink to reddish-brown color.
- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- Instruct patient to notify health care professional promptly if sore throat, fever, unusual bleeding or bruising, rash, weakness, tremors, visual disturbances, dark-colored urine, or clay-colored stools occur.
- Emphasize the importance of routine follow-up exams and continued participation in psychotherapy as indicated.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in excitable, paranoid, or withdrawn behavior
- Relief of nausea and vomiting
- Relief of intractable hiccups.

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phentermine

(fen-ter-meen)

Adipex-P, Banobese, Fastin, Ionamin, Obi-Nix, OBY-CAP, Phentercot, Phentride, T-Diet, Teramine, Zantryl

CLASSIFICATION(S):

Therapeutic: weight control agents

Pharmacologic: appetite suppressants

Schedule IV

Pregnancy Category UK

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INDICATIONS

- Short-term treatment of obesity in conjunction with other interventions (dietary restriction, exercise); used to produce and maintain weight loss in patients with a BMI ≥ 30 kg/m² or ≥ 27 kg/m² in the presence of other risk factors (diabetes, hypertension, hyperlipidemia).

ACTION

- Decreases hunger by altering the chemical control of nerve impulse transmission in the appetite control center of the hypothalamus.
- **Therapeutic Effects:**
 - Appetite suppression with resultant weight loss.

PHARMACOKINETICS

Absorption: Unknown.

Distribution: Unknown.

Metabolism and Excretion: Metabolized by the liver.

Half-life: 19–24 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity or known intolerance to sympathomimetic amines

- Cardiovascular disease
- Hyperthyroidism
- Moderate to severe hypertension
- History of drug abuse
- Agitation
- Glaucoma
- Concurrent or recent (within 14 days) MAO inhibitor therapy
- Concurrent SSRI antidepressants.

Use Cautiously in:

- Mild hypertension
- Diabetes mellitus
- Pregnancy, lactation, or children <12 yr (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underscores indicate most frequent.

CNS: CNS stimulation, confusion, dizziness, dysphoria, euphoria, headache, insomnia, mental depression, restlessness.

EENT: blurred vision.

Continued on the following page

CV: hypertension, palpitations, tachycardia.

GI: constipation, diarrhea, dry mouth, nausea, unpleasant taste, vomiting.

GU: changes in libido, impotence.

INTERACTIONS

Drug–Drug:

- Concurrent use with **MAO inhibitors** may result in hypertensive crisis (do not use within 14 days of MAO inhibitors)
- Increased risk of adverse CNS events with **alcohol**
- Concurrent use with **SSRI antidepressants** is not recommended
- May decrease **insulin** requirements in diabetic patients
- May decrease the hypotensive response to **guanethidine**.

ROUTE AND DOSAGE

- **PO (Adults):** *Phentermine hydrochloride tablets or capsules*—8 mg 3 times daily or 15–37.5 mg once daily; *Phentermine resin complex capsules*—15–30 mg once daily.

AVAILABILITY

- *Phentermine hydrochloride tablets:* 8 mg^{Rx}, 37.5 mg^{Rx}
- **Cost:** 8 mg \$10.80/100, 37.5 mg \$61.95–\$225.00/100
- *Phentermine hydrochloride capsules:* 15 mg^{Rx}, 18.75 mg^{Rx}, 30 mg^{Rx}, 37.5 mg^{Rx}
- **Cost:** 18.75 mg/100, 30 mg \$11.98–23.95/100
- *Phentermine resin complex capsules:* 15 mg^{Rx}, 30 mg^{Rx}.

TIME/ACTION PROFILE (appetite suppression)

	ONSET	PEAK	DURATION
PO-hydrochloride	unknown	unknown	4 hr [†]
PO-resin complex	unknown	unknown	12–14 hr

[†]For 8-mg tablets, increase to 12–14 hr for 30-mg capsules or 37.5-mg tablets.

NURSING IMPLICATIONS

ASSESSMENT

- Monitor patients for weight loss and adjust concurrent medications (antihypertensives, antidiabetics, lipid-lowering agents) as needed.

POTENTIAL NURSING DIAGNOSES

- Body image, disturbed (Indications).
- Nutrition, imbalanced: more than body requirements (Indications).
- Knowledge, deficient, related to medication regimen (Patient/Family Teaching).

IMPLEMENTATION

- **PO:** Administer 30 min before meals or as a single dose before breakfast or 10–14 hr before retiring.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication as directed and not to exceed dose recommended. Medication may need to be discontinued gradually.
- May cause drowsiness. Advise patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to avoid using alcohol or other CNS depressants with this medication.
- Advise patient to notify health care professional immediately if chest pain, decreased exercise tolerance, fainting, or swelling of the feet or lower legs occurs.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Gradual weight loss.

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quetiapine

(kwet-eye-a-peen)
Seroquel

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pregnancy Category C

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INDICATIONS

- Management of the symptoms of schizophrenia.

ACTION

- Probably acts by serving as an antagonist of dopamine and serotonin
- Also antagonizes histamine H₁ receptors and alpha₁-adrenergic receptors.
- **Therapeutic Effects:**
 - Decreased manifestations of psychoses.

PHARMACOKINETICS

Absorption: Well absorbed after oral administration.

Distribution: Widely distributed.

Metabolism and Excretion: Extensively metabolized by the liver (mostly by P450 CYP3A4 enzyme system); <1% excreted unchanged in the urine.

Half-life: 6 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Lactation.

Use Cautiously in:

- Cardiovascular disease, cerebrovascular disease, dehydration or hypovolemia (increased risk of hypotension)
- History of seizures, Alzheimer's dementia, or age ≥65 yr
- Hepatic impairment (dosage reduction may be necessary)
- Hypothyroidism (may be exacerbated)
- History of suicide attempt
- Pregnancy or children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **NEUROLEPTIC MALIGNANT SYNDROME**, **SEIZURES**, dizziness, cognitive impairment, extrapyramidal symptoms, sedation, tardive dyskinesia.

EENT: ear pain, rhinitis.

Resp: cough, dyspnea, pharyngitis.

CV: palpitations, peripheral edema, postural hypotension.

GI: anorexia, constipation, dry mouth, dyspepsia.

Derm: sweating.

Hemat: leukopenia.

Continued on the following page

Metab: weight gain.

Misc: flu-like syndrome.

INTERACTIONS

Drug–Drug:

- Additive CNS depression may occur with alcohol, antihistamines, opioid analgesics, and sedative/hypnotics
- Increased risk of hypotension with acute ingestion of alcohol or antihypertensives
- Phenytoin and thioridazine increase clearance and decrease effectiveness of quetiapine (dosage adjustment may be necessary); similar effects may occur with carbamazepine, barbiturates, rifampin, or corticosteroids
- Effects may be increased by ketoconazole, itraconazole, fluconazole, or erythromycin, as well as by other agents that inhibit the cytochrome P450 CYP3A4 enzyme.

ROUTE AND DOSAGE

- PO (Adults): 25 mg twice daily initially, increased by 25–50 mg 2–3 times daily over 3 days, up to 300–400 mg/day in 2–3 divided doses by the 4th day (not to exceed 800 mg/day).

AVAILABILITY

- **Tablets:** 25 mg^{Rx}, 100 mg^{Rx}, 200 mg^{Rx}, 300 mg^{Rx}
- **Cost:** 25 mg \$147.26/100, 100 mg \$268.01/100, 200 mg \$505.61/100, 300 mg \$433.14/60.

TIME/ACTION PROFILE (antipsychotic effects)

	ONSET	PEAK	DURATION
PO	unknown	unknown	8–12 hr

NURSING IMPLICATIONS

ASSESSMENT

- Monitor patient’s mental status (delusions, hallucinations, and behavior) before and periodically throughout therapy.
- Monitor mood changes. Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- Monitor blood pressure (sitting, standing, lying) and pulse before and frequently during initial dosage titration. If hypotension occurs during dose titration, return to the previous dose.
- Observe patient carefully when administering medication to ensure that medication is actually swallowed and not hoarded.
- Monitor patient for onset of extrapyramidal side effects (*akathisia*—restlessness; *dystonia*—muscle spasms and twisting motions; or *pseudoparkinsonism*—mask-like faces, rigidity, tremors, drooling, shuffling gait, dysphagia). Report these symptoms; reduction of dosage or discontinuation of medication may be necessary. Trihexyphenidyl or diphenhydramine may be used to control these symptoms.
- Monitor for tardive dyskinesia (involuntary rhythmic movement of mouth, face, and extremities). Report immediately; may be irreversible.
- **Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, seizures, diaphoresis, hypertension or hypotension, pallor, tiredness). Notify physician or other health care professional immediately if these symptoms occur.**
- **Lab Test Considerations:** May cause asymptomatic increases in AST and ALT.
 - May also cause anemia, thrombocytopenia, leukocytosis, and leukopenia.
 - May cause increased total cholesterol and triglycerides.

Continued on the following page

POTENTIAL NURSING DIAGNOSES

- Violence, risk for self-directed (Indications).
- Thought process, disturbed (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse Seroquel (quetiapine) with Serzone (nefazodone).
- If therapy is reinstated after an interval of ≥ 1 wk off, follow initial titration schedule.
- PO: May be administered without regard to food.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed.
- Inform patient of the possibility of extrapyramidal symptoms. Instruct patient to report these symptoms immediately to health care professional.
- Advise patient to change positions slowly to minimize orthostatic hypotension.
- May cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.

- Advise patient that extremes in temperature should be avoided because this drug impairs body temperature regulation.
- Caution patient to avoid concurrent use of alcohol, other CNS depressants, and OTC medications without consulting health care professional.
- Advise female patients to notify health care professional if pregnancy is planned or suspected or if they are breastfeeding or planning to breastfeed.
- Advise patient to notify health care professional of medication regimen before treatment or surgery.
- Instruct patient to notify health care professional promptly of sore throat, fever, unusual bleeding or bruising, or rash.
- Emphasize the need for continued follow-up for psychotherapy and monitoring for side effects. Ophthalmologic exams should be performed before and every 6 mo during therapy.

EVALUATION**Effectiveness of therapy can be demonstrated by:**

- Decrease in excited, paranoid, or withdrawn behavior.

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risperidone

(riss-per-i-done)

Risperdal, Risperdal M-TAB

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pregnancy Category C

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INDICATIONS

- Schizophrenia (treatment and prevention of relapse).

ACTION

- May act by antagonizing dopamine and serotonin in the CNS.
- **Therapeutic Effects:**
 - Decreased symptoms of psychoses.

PHARMACOKINETICS

Absorption: Well absorbed (70%) after oral administration.

Distribution: Unknown.

Metabolism and Excretion: Extensively metabolized by the liver. Metabolism is genetically determined; extensive metabolizers (most patients) convert risperidone to 9-hydroxyrisperidone rapidly. Poor metabolizers (6–8% of whites) convert it more slowly. The 9-hydroxyrisperidone is an antipsychotic compound. Risperidone and its active metabolite are renally eliminated.

Half-life: *Extensive metabolizers*—3 hr for risperidone, 21 hr for 9-hydroxyrisperidone. *Poor metabolizers*—20 hr for risperidone and 30 hr for 9-hydroxyrisperidone.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity.

Use Cautiously in:

- Geriatric or debilitated patients, patients with renal or hepatic impairment (initial dosage reduction recommended)
- Geriatric patients (may ↑ risk of stroke in elderly patients with dementia-related psychoses)
- Underlying cardiovascular disease (may be more prone to arrhythmias and hypotension)
- History of seizures
- History of suicide attempt or drug abuse
- Pregnancy, lactation, or children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **NEUROLEPTIC MALIGNANT SYNDROME**, aggressive behavior, dizziness, extrapyramidal reactions, headache, increased dreams, increased sleep duration, insomnia, sedation,

Continued on the following page

fatigue, impaired temperature regulation, nervousness, tardive dyskinesia.

EENT: pharyngitis, rhinitis, visual disturbances.

Resp: cough, dyspnea, rhinitis.

CV: arrhythmias, orthostatic hypotension, tachycardia.

GI: constipation, diarrhea, dry mouth, nausea, abdominal pain, anorexia, dyspepsia, increased salivation, vomiting.

GU: decreased libido, dysmenorrhea/menorrhagia, difficulty urinating, polyuria.

Derm: itching/skin rash, dry skin, increased pigmentation, increased sweating, photosensitivity, seborrhea.

Endo: galactorrhea.

MS: arthralgia, back pain.

Misc: weight gain, weight loss, polydipsia.

INTERACTIONS

Drug–Drug:

- May ↓ the antiparkinsonian effects of **levodopa** or other dopamine agonists
- **Carbamazepine** ↑ metabolism and may ↓ effectiveness
- **Clozapine** ↓ metabolism and may ↑ effects of risperidone
- **Fluoxetine** ↑ blood levels and may ↑ effects
- ↑ CNS depression may occur with other CNS depressants, including alcohol, antihistamines, sedative/hypnotics, or opioid analgesics.

ROUTE AND DOSAGE

- **PO (Adults):** 1 mg twice daily, increased by 3rd day to 3 mg twice daily. Further increments may be made at weekly intervals by 1 mg twice daily (usual range, 4–6 mg/day; not to exceed 16 mg/day). May also be given as a single daily dose after initial titration.

- **PO (Geriatric Patients or Debilitated Patients):** Start with 0.5 mg twice daily; increase by 0.5 mg twice daily, up to 1.5 mg twice daily; then increase at weekly intervals if necessary. May also be given as a single daily dose after initial titration.

Renal/Hepatic Impairment

- **PO (Adults):** Start with 0.5 mg twice daily; increase by 0.5 mg twice daily, up to 1.5 mg twice daily; then increase at weekly intervals if necessary. May also be given as a single daily dose after initial titration.

AVAILABILITY

- **Tablets:** 0.25 mg^{Rx}, 0.5 mg^{Rx}, 1 mg^{Rx}, 2 mg^{Rx}, 3 mg^{Rx}, 4 mg^{Rx}
- **Cost:** 0.25 mg \$167.27/60, 0.5 mg \$167.27/60, 1 mg \$167.27/60, 2 mg \$278.40/60, 3 mg \$328.70/60, 4 mg \$433.25/60
- **Orally disintegrating tablets:** 0.5 mg^{Rx}, 1 mg^{Rx}, 2 mg^{Rx}
- **Cost:** 0.25 mg \$167.27/60, 0.5 mg \$167.27/60, 1 mg \$167.27/60, 2 mg \$278.40/60, 3 mg \$328.70/60, 4 mg \$433.25/60
- **Oral solution:** 1 mg/ml in 30-ml and 100-ml bottles^{Rx}
- **Cost:** \$103.20/30 ml

TIME/ACTION PROFILE (clinical effects)

	ONSET	PEAK	DURATION
PO	1–2 wk	unknown	up to 6 wk [†]

[†]After discontinuation.

Continued on the following page

NURSING IMPLICATIONS

ASSESSMENT

- Monitor patient's mental status (delusions, hallucinations, and behavior) before and periodically during therapy.
- Monitor mood changes. Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- Monitor blood pressure (sitting, standing, lying down) and pulse before and frequently during initial dosage titration. May cause prolonged QT interval, tachycardia, and orthostatic hypotension. If hypotension occurs, dose may need to be decreased.
- Observe patient when administering medication to ensure that medication is actually swallowed and not hoarded.
- Monitor patient for onset of extrapyramidal side effects (*akathisia*—restlessness; *dystonia*—muscle spasms and twisting motions; or *pseudoparkinsonism*—mask-like face, rigidity, tremors, drooling, shuffling gait, dysphagia). Report these symptoms; reduction of dosage or discontinuation of medication may be necessary. Trihexyphenidyl or diphenhydramine may be used to control these symptoms.
- Monitor for tardive dyskinesia (involuntary rhythmic movement of mouth, face, and extremities). Report immediately; may be irreversible.
- **Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, seizures, diaphoresis, hypertension or hypotension, pallor, tiredness). Notify physician or other health care professional immediately if these symptoms occur.**
- **Lab Test Considerations:** May cause ↑ serum prolactin levels.
 - May cause ↑ AST and ALT.
 - May also cause anemia, thrombocytopenia, leukocytosis, and leukopenia.

POTENTIAL NURSING DIAGNOSES

- Violence, risk for self-directed (Indications).
- Thought process, disturbed (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** **Do not confuse risperidone with reserpine.**
 - When switching from other antipsychotics, discontinue previous agents when starting risperidone and minimize the period of overlapping antipsychotic agents.
 - If therapy is reinstated after an interval off risperidone, follow initial 3-day titration schedule.
- **PO:** For orally disintegrating tablets, blister pack by peeling back foil to expose tablet; do not try to push tablet through foil. Use dry hands to remove tablet from blister and immediately place entire tablet on tongue. Tablets disintegrate in mouth within seconds and can be swallowed with or without liquid. Do not attempt to split or chew tablet. Do not try to store tablets once removed from blister.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed.
- Inform patient of the possibility of extrapyramidal symptoms. Instruct patient to report these symptoms immediately to health care professional.
- Advise patient to change positions slowly to minimize orthostatic hypotension.
- May cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Advise patient to use sunscreen and protective clothing when exposed to the sun to prevent photosensitivity reactions. Extremes in temperature should also be avoided; this drug impairs body temperature regulation.
- Caution patient to avoid concurrent use of alcohol, other CNS depressants, and OTC medications or herbal products without consulting health care professional.

Continued on the following page

- Advise female patients to notify health care professional if pregnancy is planned or suspected or if they are breastfeeding or planning to breastfeed.
- Advise patient to notify health care professional of medication regimen before treatment or surgery.
- Instruct patient to notify health care professional promptly if sore throat, fever, unusual bleeding or bruising, rash, or tremors occur.

- Emphasize the need for continued follow-up for psychotherapy and monitoring for side effects.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in excited, paranoid, or withdrawn behavior.

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sertraline

(ser-tra-leen)

Zoloft

CLASSIFICATION(S):

Therapeutic: antidepressants

Pharmacologic: selective serotonin reuptake inhibitors (SSRIs)

Pregnancy Category B

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INDICATIONS

- Management of the following (in conjunction with psychotherapy):
 - Depression
 - Panic disorder
 - OCD
 - Post-traumatic stress disorder (PTSD)
 - Social anxiety disorder
 - Premenstrual dysphoric disorder.

ACTION

- Inhibits neuronal uptake of serotonin in the CNS, thus potentiating the activity of serotonin. Has little effect on norepinephrine or dopamine.
- **Therapeutic Effects:**
 - Antidepressant action
 - Decreased incidence of panic attacks
 - Decreased obsessive and compulsive behavior
 - Decreased feelings of intense fear, helplessness, or horror.
 - Decreased social anxiety
 - Decrease in premenstrual dysphoria.

PHARMACOKINETICS

Absorption: Appears to be well absorbed after oral administration.

Distribution: Extensively distributed throughout body tissues.

Protein Binding: 98%.

Metabolism and Excretion: Extensively metabolized by the liver; one metabolite has some antidepressant activity; 14% excreted unchanged in feces.

Half-life: 24 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Concurrent MAO inhibitor therapy (may result in serious, potentially fatal reactions)
- Concurrent pimozide
- Oral concentrate contains alcohol and should be avoided in patients with known intolerance.

Use Cautiously in:

- Severe hepatic or renal impairment
- Patients with a history of mania
- Patients at risk of suicide
- Pregnancy or lactation
- Children (increased incidence of adverse CNS reactions).

Continued on the following page

Psychotropic Drugs: *sertraline* (Cont'd)

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, drowsiness, fatigue, headache, insomnia, agitation, anxiety, confusion, emotional lability, impaired concentration, manic reaction, nervousness, weakness, yawning.

EENT: pharyngitis, rhinitis, tinnitus, visual abnormalities.

CV: chest pain, palpitations.

GI: diarrhea, dry mouth, nausea, abdominal pain, altered taste, anorexia, constipation, dyspepsia, flatulence, increased appetite, vomiting.

GU: sexual dysfunction, menstrual disorders, urinary disorders, urinary frequency.

Derm: increased sweating, hot flashes, rash.

MS: back pain, myalgia.

Neuro: tremor, hypertonia, hypoesthesia, paresthesia, twitching.

Misc: fever, thirst.

INTERACTIONS

Drug–Drug:

- **Serious, potentially fatal reactions** (hyperthermia, rigidity, myoclonus, autonomic instability, with fluctuating vital signs and extreme agitation, which may proceed to delirium and coma) may occur with concurrent **MAO inhibitors**. MAO inhibitors should be stopped at least 14 days before sertraline therapy. Sertraline should be stopped at least 14 days before MAO inhibitor therapy
- May ↑ **pimozide** levels and the risk of potentially life-threatening cardiovascular reactions
- May ↑ sensitivity to **adrenergics** and ↑ the risk of serotonin syndrome
- Concurrent use with **alcohol** is not recommended

- May ↑ levels/effects of warfarin, phenytoin, tricyclic antidepressants, some benzodiazepines (alprazolam), clozapine or tolbutamide

- Cimetidine ↑ blood levels and effects.

Drug–Natural:

- ↑ risk of serotonergic side effects including serotonin syndrome with **St. John's wort** and **SAMe**.

ROUTE AND DOSAGE

Depression/OCD

- **PO (Adults):** 50 mg/day as a single dose in the morning or evening initially; after several weeks may be increased at weekly intervals up to 200 mg/day, depending on response.
- **PO (Children 13–17 yr):** *OCD*—50 mg once daily.
- **PO (Children 6–12 yr):** *OCD*—25 mg once daily.

Panic Disorder

- **PO (Adults):** 25 mg/day initially, may increase after 1 wk to 50 mg/day.

PTSD

- **PO (Adults):** 25 mg once daily for 7 days, then increase to 50 mg once daily; may then be increased if needed at intervals of at least 7 days (range 50–200 mg once daily).

Social Anxiety Disorder

- **PO (Adults):** 25 mg once daily initially, then 50 mg once daily; may be increased at weekly intervals up to 200 mg/day.

Premenstrual Dysphoric Disorder

- **PO (Adults):** 50 mg/day initially either daily or daily during luteal phase of cycle. Daily dosing may be titrated upward in 50 mg increments at the beginning of a cycle. In luteal phase—only dosing a 50 mg/day titration step for three days at the beginning of each luteal phase dosing period should be used (range 50–150 mg/day).

Continued on the following page

AVAILABILITY

- **Tablets:** 25 mg^{Rx}, 50 mg^{Rx}, 100 mg^{Rx}
- **Cost:** *Zoloft*—25 mg \$126.04/50, 50 mg \$252.08/100, 100 mg \$252.08/100
- **Capsules:** 50 mg^{Rx}, 100 mg^{Rx}
- **Oral concentrate (12% alcohol):** 20 mg/ml^{Rx}.

TIME/ACTION PROFILE (antidepressant effect)

	ONSET	PEAK	DURATION
PO	within 2–4 wk	unknown	unknown

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Monitor appetite and nutritional intake. Weigh weekly. Notify physician or other health care professional of continued weight loss. Adjust diet as tolerated to support nutritional status.
- **Depression:** Monitor mood changes. Inform physician or other health care professional if patient demonstrates significant increase in anxiety, nervousness, or insomnia.
- Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- **OCD:** Assess patient for frequency of obsessive-compulsive behaviors. Note degree to which these thoughts and behaviors interfere with daily functioning.
- **Panic Attacks:** Assess frequency and severity of panic attacks.
- **PTSD:** Assess patient for feelings of fear, helplessness, and horror. Determine effect on social and occupational functioning.
- **Social Anxiety Disorder:** Assess patient for symptoms of social anxiety disorder (blushing, sweating, trembling, tachycardia during interactions with new people, people in authority, or groups) periodically during therapy.

- **Premenstrual Dysphoric Disorder:** Assess patient for symptoms of premenstrual dysphoric disorder (feeling angry, tense, or tired; crying easily, feeling sad or hopeless; arguing with family or friends for no reason; difficulty sleeping or paying attention; feeling out of control or unable to cope; having cramping, bloating, food craving, or breast tenderness) periodically during therapy.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse *sertraline* with *selegiline*.
 - Periodically reassess dose and continued need for therapy.
- **PO:** Administer as a single dose in the morning or evening.

PATIENT/FAMILY TEACHING

- Instruct patient to take *sertraline* as directed. Take missed doses as soon as possible and return to regular dosing schedule. Do not double doses.
- May cause drowsiness or dizziness. Caution patient to avoid driving and other activities requiring alertness until response to the drug is known.
- Advise patient to avoid alcohol or other CNS depressant drugs during therapy and to consult with health care professional before taking other medications with *sertraline*.
- Inform patient that frequent mouth rinses, good oral hygiene, and sugarless gum or candy may minimize dry mouth. If dry mouth persists for more than 2 wk, consult health care professional regarding use of saliva substitute.
- Advise patient to wear sunscreen and protective clothing to prevent photosensitivity reactions.
- Instruct female patient to inform health care professional if pregnancy is planned or suspected or if she is breastfeeding.
- Advise patient to notify health care professional if headache, weakness, nausea, anorexia, anxiety, or insomnia persists.

Continued on the following page

- Emphasize the importance of follow-up exams to monitor progress. Encourage patient participation in psychotherapy.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Increased sense of well-being
 - Renewed interest in surroundings. May require 1–4 wk of therapy to obtain antidepressant effects

- Decrease in obsessive-compulsive behaviors
- Decrease in frequency and severity of panic attacks.
- Decrease in symptoms of PTSD.
- Decrease in social anxiety disorder.
- Decrease in symptoms of premenstrual dysphoric disorder.

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sibutramine

(si-byoo-tra-meen)

Meridia

CLASSIFICATION(S):

Therapeutic: weight control agents

Pharmacologic: appetite suppressants

Schedule IV

Pregnancy Category C

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INDICATIONS

- Treatment of obesity in patients with body mass index ≥ 30 kg/m² (or ≥ 27 kg/m² in patients with diabetes, hypertension, or other risk factors) in conjunction with other interventions (dietary restriction, exercise); used to produce and maintain weight loss.

ACTION

- Acts as an inhibitor of the reuptake of serotonin, norepinephrine, and dopamine; increases the satiety-producing effects of serotonin.
- **Therapeutic Effects:**
 - Decreased hunger with resultant weight loss in obese patients.

PHARMACOKINETICS

Absorption: 77% absorbed, then rapidly undergoes extensive first-pass hepatic metabolism (via the P450 3A4 metabolic pathway) to active metabolites (M1 and M2).

Distribution: Widely and rapidly distributed; high concentrations in liver and kidneys.

Metabolism and Excretion: Active metabolites are extensively metabolized to inactive metabolites that are mostly excreted by the kidneys.

Half-life: *M1 metabolite*—14 hr; *M2 metabolite*—16 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Anorexia nervosa
- Concurrent use of other centrally acting appetite suppressants, MAO inhibitors, SSRIs, sumatriptan, naratriptan, zolmitriptan, dihydroergotamine, dextromethorphan, meperidine, pentazocine, fentanyl, lithium, or tryptophan
- Organic causes of obesity (untreated hypothyroidism)
- Severe hepatic/renal impairment
- Uncontrolled/poorly controlled hypertension
- History of coronary artery disease, CHF, arrhythmias, or stroke
- Excessive consumption of alcohol
- Pregnancy or lactation.

Continued on the following page

Use Cautiously in:

- History of seizures
- Narrow-angle glaucoma
- Geriatric patients
- Children <16 yr (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **SEIZURES**, headache, insomnia, CNS stimulation, dizziness, drowsiness, emotional lability, nervousness.

EENT: laryngitis/pharyngitis, rhinitis, sinusitis.

CV: hypertension, palpitations, tachycardia, vasodilation.

GI: anorexia, constipation, dry mouth, altered taste, dyspepsia, increased appetite, nausea.

GU: dysmenorrhea.

Derm: increased sweating, rash.

INTERACTIONS

Drug-Drug:

- Concurrent use of **other centrally acting appetite suppressants, MAO inhibitors, SSRIs, naratriptan, frovatriptan, rizatriptan, zolmitriptan, sumatriptan, dihydroergotamine, methysergide dextromethorphan, meperidine, pentazocine, fentanyl, lithium, or tryptophan** may result in potentially fatal “serotonin syndrome” (avoid concurrent use; allow 2 wk between use of MAO inhibitors and sibutramine)
- Concurrent use of **decongestants** may increase the risk of hypertension
- **Drugs that affect the P450 3A4 enzyme system** may alter the effects of sibutramine
- **Ketoconazole, cimetidine, and erythromycin** decrease metabolism and may increase blood levels and effects.

ROUTE AND DOSAGE

- **PO (Adults):** 10 mg once daily; may be increased to 15 mg/day after 4 wk. Patients who do not tolerate an initial dose of 10 mg/day may be started on 5 mg/day.

AVAILABILITY

- **Capsules:** 5 mg^{Rx}, 10 mg^{Rx}, 15 mg^{Rx}
- **Cost:** 5 mg \$290.00/100, 10 mg \$290.00/100, 15 mg \$375.00/100.

TIME/ACTION PROFILE (appetite suppression/weight loss)

	ONSET	PEAK	DURATION
PO	days	4 wk	unknown

NURSING IMPLICATIONS

ASSESSMENT

- Monitor patients for weight loss and adjust concurrent medications (antihypertensives, antidiabetics, lipid-lowering agents) as needed.
- Monitor blood pressure and heart rate regularly during therapy. Increases in blood pressure or heart rate, especially during early therapy, may require decrease in dose or discontinuation of sibutramine.

POTENTIAL NURSING DIAGNOSES

- Body image, disturbed (Indications).
- Nutrition, imbalanced: more than body requirements (Indications).
- Knowledge, deficient, related to medication regimen (Patient/Family Teaching).

Continued on the following page

IMPLEMENTATION

- PO: Capsules should be taken once daily without regard to meals.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication as directed and not to exceed dose recommended. Medication may need to be discontinued gradually.
- Caution patient to avoid using other CNS depressants or excessive amounts of alcohol with this medication.

EVALUATION**Effectiveness of therapy can be demonstrated by:**

- Slow, consistent weight loss when combined with a reduced-calorie diet. If this does not occur, therapy should be re-evaluated. Loss of at least 10% of initial body weight should occur within 1 yr.

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temazepam

(tem-az-a-pam)

Restoril

CLASSIFICATION(S):

Therapeutic: sedative/hypnotics

Pharmacologic: benzodiazepines

Schedule IV

Pregnancy Category X

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INDICATIONS

- Short-term management of insomnia.

ACTION

- Acts at many levels in the CNS, producing generalized depression
- Effects may be mediated by GABA, an inhibitory neurotransmitter.
- **Therapeutic Effects:**
 - Relief of insomnia.

PHARMACOKINETICS

Absorption: Well absorbed after oral administration.

Distribution: Widely distributed; crosses blood-brain barrier. Probably crosses the placenta and enters breast milk. Accumulation of drug occurs with chronic dosing.

Protein Binding: 96%.

Metabolism and Excretion: Metabolized by the liver.

Half-life: 10–20 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity

- Cross-sensitivity with other benzodiazepines may exist
- Pre-existing CNS depression
- Severe uncontrolled pain
- Narrow-angle glaucoma
- Pregnancy or lactation.

Use Cautiously in:

- Pre-existing hepatic dysfunction
- History of suicide attempt or drug addiction
- Geriatric or debilitated patients (dosage reduction recommended).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: hangover, dizziness, drowsiness, lethargy, paradoxical excitation.

EENT: blurred vision.

GI: constipation, diarrhea, nausea, vomiting.

Derm: rashes.

Misc: physical dependence, psychological dependence, tolerance.

Continued on the following page

INTERACTIONS

Drug–Drug:

- Additive CNS depression with alcohol, antidepressants, antihistamines, opioid analgesics, and other sedative/hypnotics
- May decrease efficacy of levodopa
- Rifampin or smoking increases metabolism and may decrease effectiveness of temazepam
- Probenecid may prolong the effects of temazepam
- Sedative effects may be antagonized by theophylline.

Drug–Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can increase CNS depression.

ROUTE AND DOSAGE

- PO (Adults): 15–30 mg at bedtime initially if needed; some patients may require only 7.5 mg.
- PO (Geriatric Patients or Debilitated Patients): 7.5 mg at bedtime.

AVAILABILITY

- **Capsules:** 7.5 mg^{Rx}, 15 mg^{Rx}, 30 mg^{Rx}
- **Cost:** Restoril—7.5 mg \$78.38/100, 15 mg \$87.64/100, 30 mg \$98.01/100; generic—7.5 mg \$53.39/100, 15 mg \$62.75/100, 30 mg \$59.84/100.

TIME/ACTION PROFILE (sedation)

	ONSET	PEAK	DURATION
PO	30 min	2–3 hr	6–8 hr

NURSING IMPLICATIONS

ASSESSMENT

- Assess sleep patterns before and periodically throughout course of therapy.
- Prolonged high-dose therapy may lead to psychological or

physical dependence. Restrict amount of drug available to patient, especially if patient is depressed or suicidal or has a history of addiction.

POTENTIAL NURSING DIAGNOSES

- Sleep pattern, disturbed (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Do not confuse temazepam with flurazepam.
 - Supervise ambulation and transfer of patients after administration. Remove cigarettes. Side rails should be raised and call bell within reach at all times.
- PO: Administer with food if GI irritation becomes a problem.

PATIENT/FAMILY TEACHING

- Instruct patient to take temazepam exactly as directed. Discuss the importance of preparing environment for sleep (dark room, quiet, avoidance of nicotine and caffeine). If less effective after a few weeks, consult health care professional; do not increase dose.
- May cause daytime drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Advise patient to avoid the use of alcohol and other CNS depressants and to consult health care professional before using OTC preparations that contain antihistamines or alcohol.
- Advise patient to inform health care professional if pregnancy is planned or suspected.
- Emphasize the importance of follow-up appointments to monitor progress.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Improvement in sleep habits, which may not be noticeable until the 3rd day of therapy.

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thioridazine

(thye-oh-rid-a-zeen)

Apo-Thioridazine, Mellaril, Mellaril-S, Novo-Ridazine, PMS Thioridazine

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pharmacologic: phenothiazines

Pregnancy Category C

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INDICATIONS

- Management of schizophrenia in patients who do not have an acceptable response to treatment with conventional therapy.

ACTION

- Alters the effects of dopamine in the CNS
- Possesses significant anticholinergic and alpha-adrenergic blocking activity.
- **Therapeutic Effects:**
 - Diminished signs and symptoms of psychoses.

PHARMACOKINETICS

Absorption: Absorption from tablets is variable; may be better with oral liquid formulations.

Distribution: Widely distributed, high concentrations in the CNS. Crosses the placenta and enters breast milk.

Protein Binding: ≥90%.

Metabolism and Excretion: Highly metabolized by the liver and GI mucosa.

Half-life: 21–24 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Cross-sensitivity with other phenothiazines may exist
- Narrow-angle glaucoma
- Bone marrow depression
- Severe liver or cardiovascular disease
- Known alcohol intolerance (concentrate only)
- Concurrent fluvoxamine, propranolol, pindolol, fluoxetine, other agents known to inhibit the CYP450 2D6 enzyme, or agents known to prolong the QTc interval (risk of life-threatening arrhythmias)
- Hypokalemia (correct prior to use)
- QTc interval >450 msec

Use Cautiously in:

- Geriatric or debilitated patients
- Diabetes mellitus
- Patients with risk factors for electrolyte imbalance (dehydration, diuretic therapy)
- Respiratory disease
- Prostatic hypertrophy
- CNS tumors

Continued on the following page

- Epilepsy
- Intestinal obstruction
- Pregnancy or lactation (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **NEUROLEPTIC MALIGNANT SYNDROME**, sedation, extrapyramidal reactions, tardive dyskinesia.

EENT: blurred vision, dry eyes, lens opacities, pigmentary retinopathy (high doses).

CV: **ARRHYTHMIAS**, **QTC PROLONGATION**, hypotension, tachycardia.

GI: constipation, dry mouth, anorexia, drug-induced hepatitis, ileus.

GU: urinary retention.

Derm: photosensitivity, pigment changes, rashes.

Endo: galactorrhea.

Hemat: **AGRANULOCYTOSIS**, leukopenia.

Metab: hyperthermia.

Misc: allergic reactions.

INTERACTIONS

Drug-Drug:

- Concurrent **fluvoxamine**, **propranolol**, **pindolol**, **fluoxetine**, other agents known to inhibit the CYP450 2D6 enzyme, or agents known to prolong the QTc interval (risk of life-threatening arrhythmias)
- **Diuretics** increase the risk of electrolyte imbalance and arrhythmias.
- Additive hypotension with other antihypertensives, nitrates, and acute ingestion of alcohol

- Additive CNS depression with other CNS depressants, including **alcohol**, **antihistamines**, **opioid analgesics**, **sedative/hypnotics**, and **general anesthetics**
- Additive anticholinergic effects with other drugs possessing anticholinergic properties, including **antihistamines**, **antidepressants**, **atropine**, **haloperidol**, other **phenothiazines**, and **disopyramide**
- **Lithium** decreases blood levels of thioridazine
- Thioridazine may mask early signs of **lithium** toxicity and increase the risk of extrapyramidal reactions
- Increased risk of agranulocytosis with **antithyroid agents**
- Concurrent use with **epinephrine** may result in severe hypotension and tachycardia
- May decrease the effectiveness of **levodopa**.

ROUTE AND DOSAGE

- **PO (Adults and Children >12 yr):** 50–100 mg tid initially; may be gradually increased to a maintenance dose of up to 800 mg/day.
- **PO (Children):** 0.5 mg/kg/day in divided doses initially; may be gradually increased to a maintenance dose of up to 3 mg/kg/day.

AVAILABILITY

- **Tablets:** 10 mg^{Rx}, 15 mg^{Rx}, 25 mg^{Rx}, 50 mg^{Rx}, 100 mg^{Rx}, 150 mg^{Rx}, 200 mg^{Rx}
- **Cost:** *Mellaril*—10 mg \$38.42/100, 15 mg \$45.29/100, 25 mg \$54.05/100, 50 mg \$65.62/100, 100 mg \$77.05/100, 150 mg \$101.38/100, 200 mg \$115.47/100; *generic*—10 mg \$12.04/100, 25 mg \$21.09/100, 50 mg \$23.97/100, 100 mg \$31.34/100
- **Oral suspension:** 10 mg/5 ml^{Rx}, 25 mg/5 ml^{Rx}, 100 mg/5 ml^{Rx}
- **Concentrated oral solution:** 30 mg/ml^{Rx}, 100 mg/ml^{Rx}.

Continued on the following page

TIME/ACTION PROFILE (antipsychotic effects)

	ONSET	PEAK	DURATION
PO	unknown	unknown	8–12 hr

NURSING IMPLICATIONS

ASSESSMENT

- Assess mental status (orientation, mood, behavior) and degree of anxiety before and periodically throughout therapy.
- Monitor blood pressure (sitting, standing, lying), ECG, pulse, and respiratory rate before and frequently during the period of dosage adjustment. May cause Q-wave and T-wave changes in ECG.
- Observe patient carefully when administering medication to ensure that medication is actually taken and not hoarded.
- Assess patient for level of sedation after administration.
- Monitor intake and output ratios and daily weight. Report significant discrepancies.
- Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait, rigidity, tremors; and *dystonic*—muscle spasms, twisting motions, twitching, inability to move eyes, weakness of arms or legs) every 2 mo during therapy and 8–12 wk after therapy has been discontinued. Report these symptoms; reduction in dosage or discontinuation of medication may be necessary. Trihexyphenidyl or diphenhydramine may be used to control these symptoms.
- Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities; lip smacking or puckering; puffing of cheeks; uncontrolled chewing; rapid or worm-like movements of tongue). Report immediately; may be irreversible.

- Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, seizures, diaphoresis, hypertension or hypotension, pallor, tiredness, severe muscle stiffness, loss of bladder control). Notify physician or other health care professional immediately if these symptoms occur.
- **Lab Test Considerations:** CBC, liver function tests, and ocular examinations should be evaluated periodically throughout therapy. May cause decreased hematocrit, hemoglobin, leukocytes, granulocytes, platelets. May cause elevated bilirubin, AST, ALT, and alkaline phosphatase. Agranulocytosis occurs between 4–10 wk of therapy with recovery 1–2 wk after discontinuation. May recur if medication is restarted. Liver function abnormalities may require discontinuation of therapy.
 - May cause false-positive or false-negative pregnancy test results and false-positive urine bilirubin test results.
 - May cause increased serum prolactin levels, thereby interfering with gonadorelin test results.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Thought process, disturbed (Indications).

IMPLEMENTATION

- **General:** To prevent contact dermatitis, avoid getting liquid preparations on hands, and wash hands thoroughly if spillage occurs.
 - Phenothiazines should be discontinued 48 hr before and not resumed for 24 hr after myelography, as they lower the seizure threshold.
- **PO:** Administer with food, milk, or full glass of water to minimize gastric irritation.
 - Dilute concentrate in 120 ml of distilled or acidified tap water or fruit juice just before administration.

Continued on the following page

Psychotropic Drugs: *thioridazine* (Cont'd)

PATIENT/FAMILY TEACHING

- Advise patient to take medication exactly as directed and not to skip doses or double up on missed doses. If a dose is missed, it should be taken as soon as remembered unless almost time for the next dose. If more than 2 doses a day are ordered, the missed dose should be taken within 1 hr of the scheduled time or omitted. Abrupt withdrawal may lead to gastritis, nausea, vomiting, dizziness, headache, tachycardia, and insomnia.
- Inform patient of possibility of extrapyramidal symptoms and tardive dyskinesia. Instruct patient to report these symptoms immediately to health care professional.
- Advise patient to change positions slowly to minimize orthostatic hypotension.
- May cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Advise patient to use sunscreen and protective clothing when exposed to the sun. Exposed surfaces may develop a blue-gray pigmentation, which may fade after discontinuation of the medication. Extremes in temperature should also be avoided, as this drug impairs body temperature regulation.
- Instruct patient to use frequent mouth rinses, good oral hygiene, and sugarless gum or candy to minimize dry mouth. Consult health care professional if dry mouth continues for >2 wk.
- Advise patient that increasing activity and bulk and fluids in the diet helps minimize the constipating effects of this medication.

- Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.
- Advise patient not to take thioridazine within 2 hr of antacids or antidiarrheal medication.
- Inform patient that this medication may turn urine pink to reddish brown.
- Advise patient to notify health care professional of medication regimen before treatment or surgery.
- Instruct patient to notify health care professional promptly if sore throat, fever, unusual bleeding or bruising, rash, weakness, tremors, visual disturbances, dark-colored urine, or clay-colored stools occur.
- Emphasize the importance of routine follow-up exams to monitor response to medication and to detect side effects. Periodic ocular exams are indicated. Encourage continued participation in psychotherapy.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in excitable, paranoid, or withdrawn behavior
- Decrease in anxiety associated with depression
- Improvement in severe behavioral problems in children.

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thiothixene

(thye-oh-**thix**-een)

Navane

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pharmacologic: thioxanthenes

Pregnancy Category UK

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INDICATIONS

- Management of psychoses, especially in withdrawn, apathetic schizophrenic patients and patients suffering from delusions and hallucinations.

ACTION

- Alters the effect of dopamine in the CNS.
- **Therapeutic Effects:**
 - Diminished signs and symptoms of psychoses.

PHARMACOKINETICS

Absorption: Well absorbed following oral administration.

Distribution: Widely distributed; crosses the placenta.

Metabolism and Excretion: Mainly metabolized by the liver.

Half-life: 30 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Cross-sensitivity with other phenothiazines may occur
- Narrow-angle glaucoma

- Bone marrow depression
- Severe liver or cardiac disease.

Use Cautiously in:

- Geriatric or debilitated patients (initial dosage reduction may be required)
- Diabetes mellitus
- Respiratory disease
- Prostatic hypertrophy
- CNS tumors
- Epilepsy
- Intestinal obstruction
- Pregnancy, lactation, or children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **NEUROLEPTIC MALIGNANT SYNDROME**, extrapyramidal reactions, sedation, tardive dyskinesia.

EENT: blurred vision, dry eyes, lens opacities.

CV: hypotension, tachycardia.

GI: constipation, dry mouth, anorexia, drug-induced hepatitis, ileus, nausea.

Continued on the following page

GU: urinary retention.

Derm: photosensitivity, pigment changes, rashes.

Endo: galactorrhea.

Hemat: leukocytosis, leukopenia.

Metab: hyperpyrexia.

Misc: allergic reactions.

INTERACTIONS

Drug–Drug:

- Additive hypotension with **antihypertensives**, acute ingestion of **alcohol**, and **nitrates**
- Additive CNS depression with other CNS depressants, including **alcohol**, **antihistamines**, **antidepressants**, **opioid analgesics**, and **sedative/hypnotics**
- Additive anticholinergic effects with other drugs having **anticholinergic properties**, including **antihistamines**, **antidepressants**, **quinidine**, or **disopyramide**
- May decrease the effectiveness of **levodopa**
- Increased risk of cardiac effects with **quinidine**.

Drug–Natural:

- Concomitant use of **kava**, **valerian**, **skullcap**, **chamomile**, or **hops** can increase CNS depression.

ROUTE AND DOSAGE

- **PO (Adults):** *Mild conditions*—2 mg tid (up to 15 mg/day if necessary; *severe conditions*—5 mg bid (up to 20–30 mg/day; not to exceed 60 mg/day).

AVAILABILITY

- **Capsules:** 1 mg^{Rx}, 2 mg^{Rx}, 5 mg^{Rx}, 10 mg^{Rx}, 20 mg^{Rx}
- **Concentrated oral solution:** 5 mg/ml in 30- and 120-ml containers^{Rx}

TIME/ACTION PROFILE (antipsychotic effects)

	ONSET	PEAK	DURATION
PO	days–wks	unknown	unknown
IM	1–6 hr	unknown	unknown

NURSING IMPLICATIONS

ASSESSMENT

- Monitor patient's mental status (delusions, hallucinations, and behavior) prior to and periodically throughout therapy.
- Observe patient carefully when administering medication to ensure that medication is actually taken and not hoarded.
- Assess patient for level of sedation following administration.
- Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait, rigidity, tremors; and *dystonic*—muscle spasms, twisting motions, twitching, inability to move eyes, weakness of arms or legs) every 2 mo during therapy and 8–12 wk after therapy has been discontinued. Parkinsonian effects are more common in geriatric patients and dystonias are more common in younger patients. Notify physician or other health care professional if these symptoms occur, because reduction in dosage or discontinuation of medication may be necessary. Trihexyphenidyl or diphenhydramine may be used to control these symptoms.
- Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities; lip smacking or puckering; puffing of cheeks; uncontrolled chewing;

Continued on the following page

rapid or worm-like movements of tongue). Notify physician or other health care professional immediately if these symptoms occur, as these side effects may be irreversible.

- **Monitor for development of neuroleptic malignant syndrome** (fever, respiratory distress, tachycardia, convulsions, diaphoresis, hypertension or hypotension, pallor, tiredness, severe muscle stiffness, loss of bladder control). Notify physician or other health care professional immediately if these symptoms occur.
- **Lab Test Considerations:** Thiothixene increases serum prolactin levels and lowers serum uric acid levels. May cause false-positive or false-negative pregnancy tests.
 - Monitor CBC and differential prior to and periodically throughout therapy. Risk of leukopenia is highest between weeks 4 and 10 of therapy.
 - Monitor liver function studies prior to and periodically during therapy. Risk of hepatotoxicity is greatest 2–4 wk after beginning therapy.

POTENTIAL NURSING DIAGNOSES

- Thought process, disturbed (Indications).
- Injury, risk for (Side Effects).
- Knowledge, deficient, related to medication regimen (Patient/Family Teaching).

IMPLEMENTATION

- **General:** All forms of solution may cause dermatitis; avoid skin contact and wash hands thoroughly if spillage occurs.
 - Thiothixene lowers the seizure threshold; institute seizure precautions for patients with history of seizure disorder and discontinue thiothixene 48 hr before and do not resume for 24 hr following myelography.

- **PO:** Administer capsules with food or milk to decrease gastric irritation.
 - Dilute oral solution with 240 ml of milk, juice, carbonated drink, or soup to decrease gastric irritation. Measure dose with provided dropper.

PATIENT/FAMILY TEACHING

- Instruct patient on need to take medication exactly as directed. If a dose is missed, it should be taken as soon as remembered until 2 hr before next dose. Do not double doses. Patients on long-term high-dose therapy may need dose tapered to avoid withdrawal symptoms (dyskinesia, tremors, dizziness, nausea, and vomiting).
- Instruct patients receiving oral solution on correct method of measuring dose with provided dropper.
- Drowsiness may occur. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Inform patient of possibility of extrapyramidal symptoms and tardive dyskinesia. Caution patient to report these symptoms immediately to health care professional.
- Instruct patient to use frequent mouth rinses, good oral hygiene, and sugarless gum or candy to minimize dry mouth. Consult health care professional if dry mouth continues for >2 wk.
- Advise patient that increasing bulk and fluids in the diet and exercising may help minimize the constipating effects of this medication.
- Caution patient to use sunscreen and protective clothing to prevent photosensitivity reactions.
- Caution patient to avoid concurrent use of alcohol, other CNS depressants, and OTC medications without prior approval of health care professional.
- Caution patient to avoid exercising in hot weather and taking very hot baths, because this drug impairs temperature regulation.

Continued on the following page

- Instruct patient to notify health care professional promptly if sore throat, fever, skin rashes or discoloration, weakness, tremors, or visual disturbances are noted.
- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.

- Emphasize the importance of continued medical follow-up for psychotherapy, eye exams, and laboratory tests.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in psychotic ideation.

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topiramate

(toe-**peer**-i-mate)

Topamax

CLASSIFICATION(S):

Therapeutic: anticonvulsants

Pregnancy Category C

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INDICATIONS

- Adjunctive therapy of seizures including
 - partial-onset
 - primary generalized tonic-clonic
 - seizures due to Lennox-Gastaut syndrome

ACTION

- Action may be due to:
 - Blockade of sodium channels in neurons
 - Enhancement of gamma-aminobutyrate, an inhibitory neurotransmitter
 - Prevention of activation of excitatory receptors.
- **Therapeutic Effects:**
 - Decreased incidence of seizures.

PHARMACOKINETICS

Absorption: Well absorbed (80%) after oral administration.

Distribution: Unknown.

Metabolism and Excretion: 70% excreted unchanged in urine.

Half-life: 21 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity.

Use Cautiously in:

- Renal impairment (dosage reduction recommended if CCr <70 ml/min/1.73 m²)
- Hepatic impairment
- Children (more prone to oligohydrosis and hyperthermia)
- Dehydration
- Pregnancy, lactation, or children <2 yr (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **INCREASED SEIZURES**, dizziness, drowsiness, fatigue, impaired concentration/memory, nervousness, psychomotor slowing, speech problems, aggressive reaction, agitation, anxiety, confusion, depression, malaise, mood problems.

EENT: abnormal vision, diplopia, nystagmus, acute myopia, secondary angle closure glaucoma.

GI: nausea, abdominal pain, anorexia, constipation, dry mouth.

GU: kidney stones.

Derm: ↓ sweating (in children).

Continued on the following page

Hemat: leukopenia.

Metab: weight losshyperthermia(↑ in children).

Neuro: ataxia, paresthesia, tremor.

Misc: **SUICIDE ATTEMPT**, fever.

INTERACTIONS

Drug–Drug:

- Blood levels and effects may be ↓ by **phenytoin**, **carbamazepine**, or **valproic acid**
- May ↑ blood levels and effects of **phenytoin**
- May ↓ blood levels and effects of **hormonal contraceptives** or **valproic acid**
- ↑ risk of CNS depression with **alcohol** or other CNS depressants
- **Carbonic anhydrase inhibitors** (**acetazolamide**) may ↑ risk of kidney stones.

ROUTE AND DOSAGE

- **PO (Adults and children ≥17 yr):** 25–50 mg/day initially, gradually increased by 25–50 mg weekly up to 200 mg twice daily (not to exceed 1600 mg/day).
- **PO (Children 2–17 yr):** 5–9 mg/kg/day in 2 divided doses; initiate with 25 mg (or less based in 1–3 mg/kg) nightly for 7 days then increase at 1–2 wk intervals in increments of 1–3 mg/kg/day in 2 divided doses; titration should be based on clinical outcome.

Renal Impairment

- **PO (Adults):** *CCr*<70 ml/min—50% of the usual dose.

AVAILABILITY

- **Sprinkle capsules:** 15 mg^{Rx}, 25 mg^{Rx}, 50 mg^{Rx}
- **Cost:** 15 mg \$78.66/60, 25 mg \$95.08/60
- **Tablets:** 25 mg^{Rx}, 100 mg^{Rx}, 200 mg^{Rx}
- **Cost:** 25 mg \$83.17/60, 100 mg \$194.99/60, 200 mg \$228.28/60.

TIME/ACTION PROFILE (blood levels[†])

	ONSET	PEAK	DURATION
PO	unknown	2 hr	12 hr

[†]After single dose.

NURSING IMPLICATIONS

ASSESSMENT

- Assess location, duration, and characteristics of seizure activity.
- **Lab Test Considerations:** Monitor CBC with differential and platelet count before therapy to determine baseline levels and periodically during therapy. Frequently causes anemia.
 - Hepatic function should be monitored periodically throughout therapy. May cause ↑ AST and ALT levels.

POTENTIAL NURSING DIAGNOSES

- Injury, risk for (Indications, Side Effects).

IMPLEMENTATION

- **General:** Implement seizure precautions.
- **PO:** May be administered without regard to meals.
 - Do not break tablets because of bitter taste.
 - Contents of the sprinkle capsules can be sprinkled on a small amount (teaspoon) of soft food, such as applesauce, custard, ice cream, oatmeal, pudding, or yogurt. To open, hold the capsule upright so that you can read the word “TOP.” Carefully twist off the clear portion of the capsule. It may be best to do this over the small portion of the food onto which you will be pouring the sprinkles. Sprinkle the entire contents of the capsule onto the food. Be sure the

Continued on the following page

patient swallows the entire spoonful of the sprinkle/food mixture immediately without chewing. Follow with fluids immediately to make sure all of the mixture is swallowed. Never store a sprinkle/food mixture for use at another time.

PATIENT/FAMILY TEACHING

- Instruct patient to take topiramate exactly as directed. Take missed doses as soon as possible but not just before next dose; do not double doses. Notify health care professional if more than 1 dose is missed. Medication should be gradually discontinued to prevent seizures and status epilepticus.
- May cause decreased sweating and increased body temperature. Advise patients, especially parents of pediatric patients, to provide adequate hydration and monitoring, especially during hot weather.
- May cause dizziness, drowsiness, confusion, and difficulty concentrating. Caution patients to avoid driving or other activities requiring alertness until response to medication is known.
- Advise patient to maintain a fluid intake of 2000–3000 ml of fluid/day to prevent the formation of kidney stones.

- Instruct patient to notify health care professional immediately if periorbital pain or blurred vision occur. Medication should be discontinued if ocular symptoms occur. May lead to permanent loss of vision.
- Caution patient to make position changes slowly to minimize orthostatic hypotension.
- Advise patient not to take alcohol or other CNS depressants concurrently with this medication.
- Advise patient to use a nonhormonal form of contraception while taking topiramate.
- Instruct patient to notify health care professional of medication regimen before treatment or surgery.
- Advise patient to use sunscreen and wear protective clothing to prevent photosensitivity reactions.
- Advise patient to carry identification describing disease and medication regimen at all times.

EVALUATION

Clinical response to therapy can be evaluated by:

- Absence or reduction of seizure activity.

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trazodone

(traz-oh-done)

Desyrel, Trialodine, Trazon

CLASSIFICATION(S):

Therapeutic: antidepressants

Pregnancy Category C

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INDICATIONS

- Treatment of major depression often in conjunction with psychotherapy.
- Unlabelled Uses:
 - Management of insomnia and chronic pain syndromes, including diabetic neuropathy.

ACTION

- Alters the effects of serotonin in the CNS.
- **Therapeutic Effects:**
 - Antidepressant action, which may develop only over several weeks.

PHARMACOKINETICS

Absorption: Well absorbed after oral administration.

Distribution: Widely distributed.

Protein Binding: 89–95%.

Metabolism and Excretion: Extensively metabolized by the liver; minimal excretion of unchanged drug by the kidneys.

Half-life: 5–9 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Recovery period after MI

- Concurrent electroconvulsive therapy.

Use Cautiously in:

- Cardiovascular disease
- Suicidal behavior
- Severe hepatic or renal disease (dosage reduction recommended)
- Geriatric patients (initial dosage reduction recommended)
- Pregnancy, lactation, or children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: drowsiness, confusion, dizziness, fatigue, hallucinations, headache, insomnia, nightmares, slurred speech, syncope, weakness.

EENT: blurred vision, tinnitus.

CV: hypotension, arrhythmias, chest pain, hypertension, palpitations, tachycardia.

GI: dry mouth, altered taste, constipation, diarrhea, excess salivation, flatulence, nausea, vomiting.

GU: hematuria, impotence, priapism, urinary frequency.

Continued on the following page

Derm: rashes.

Hemat: anemia, leukopenia.

MS: myalgia.

Neuro: tremor.

INTERACTIONS

Drug–Drug:

- May increase digoxin or phenytoin serum levels
- Additive CNS depression with other CNS depressants, including alcohol, opioid analgesics, and sedative/hypnotics
- Additive hypotension with antihypertensives, acute ingestion of alcohol, or nitrates
- Concurrent use with fluoxetine increases levels and risk of toxicity from trazodone.

Drug–Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can increase CNS depression
- Increased risk of serotonergic side effects including serotonin syndrome with St. John's wort and SAME.

ROUTE AND DOSAGE

- **PO (Adults):** *Depression*—150 mg/day in 3 divided doses; increase by 50 mg/day q 3–4 days until desired response (not to exceed 400 mg/day in outpatients or 600 mg/day in hospitalized patients). *Insomnia*—25–100 mg at bedtime.
- **PO (Geriatric Patients):** 75 mg/day in divided doses initially; may be increased q 3–4 days.
- **PO (Children 6–18 yr):** 1.5–2 mg/kg/day in divided doses. May be increased q 3–4 days up to 6 mg/kg/day.

AVAILABILITY

- **Tablets:** 50 mg^{Rx}, 100 mg^{Rx}, 150 mg^{Rx}, 300 mg^{Rx}
- **Cost:** *Desyrel*—50 mg \$176.15/100, 100 mg \$307.81/100, 150 mg \$285.07/100, 300 mg \$507.38/100; *generic*—50 mg \$41.73/100, 100 mg \$70.18/100, 150 mg \$146.92/100, 300 mg \$426.52/100.

TIME/ACTION PROFILE (antidepressant effect)

	ONSET	PEAK	DURATION
PO	1–2 wk	2–4 wk	wks

NURSING IMPLICATIONS

ASSESSMENT

- **General:** Monitor blood pressure and pulse rate before and during initial therapy. Patients with pre-existing cardiac disease should have ECGs monitored before and periodically during therapy to detect arrhythmias.
- **Depression:** Assess mental status and mood changes frequently. Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- **Pain:** Assess location, duration, intensity, and characteristics of pain before and periodically during therapy.
- **Lab Test Considerations:** Assess CBC and renal and hepatic function before and periodically during therapy. Slight, clinically insignificant decrease in leukocyte and neutrophil counts may occur.

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).

IMPLEMENTATION

- **PO:** Administer with or immediately after meals to minimize side effects (nausea, dizziness) and allow maximum absorption of trazodone. A larger portion of the total daily dose may be given at bedtime to decrease daytime drowsiness and dizziness.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed. If a dose is missed, take as soon as remembered. Do not take if

Continued on the following page

within 4 hr of next scheduled dose; do not double doses.

Consult health care professional before discontinuing medication; gradual dosage reduction is necessary to prevent aggravation of condition.

- May cause drowsiness and blurred vision. Caution patient to avoid driving and other activities requiring alertness until response to drug is known.
- Caution patient to change positions slowly to minimize orthostatic hypotension.
- Advise patient to avoid concurrent use of alcohol or other CNS depressant drugs.
- Inform patient that frequent rinses, good oral hygiene, and sugarless candy or gum may diminish dry mouth. Health care professional should be notified if this persists >2 wk. An increase in fluid intake, fiber, and exercise may prevent constipation.
- Advise patient to notify health care professional of medication regimen before treatment or surgery.
- Instruct patient to notify health care professional if priapism, irregular heartbeat, fainting, confusion, skin rash, or tremors occur or if dry mouth, nausea and vomiting, dizziness,

headache, muscle aches, constipation, or diarrhea becomes pronounced.

- Emphasize the importance of follow-up exams to evaluate progress.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Resolution of depression
 - Increased sense of well-being
 - Renewed interest in surroundings
 - Increased appetite
 - Improved energy level
 - Improved sleep
- Decrease in severity of pain in chronic pain syndromes. Therapeutic effects are usually seen within 1 wk, although 4 wk may be required to obtain significant therapeutic results.

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triazolam

(trye-az-oh-lam)

Apo-Triazo, Gen-Triazolam, Halcion, Novo-Triolam, Nu-Triazo

CLASSIFICATION(S):

Therapeutic: sedative/hypnotics

Pharmacologic: benzodiazepines

Schedule IV

Pregnancy Category X

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INDICATIONS

- Short-term management of insomnia.

ACTION

- Acts at many levels in the CNS, producing generalized depression
- Effects may be mediated by GABA, an inhibitory neurotransmitter.
- **Therapeutic Effects:**
 - Relief of insomnia.

PHARMACOKINETICS

Absorption: Well absorbed following oral administration.

Distribution: Widely distributed, crosses blood-brain barrier. Probably crosses the placenta and enters breast milk.

Protein Binding: 89%.

Metabolism and Excretion: Metabolized by the liver.

Half-life: 1.6–5.4 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity

- Cross-sensitivity with other benzodiazepines may occur
- Pre-existing CNS depression
- Uncontrolled severe pain
- Pregnancy, lactation, or children.

Use Cautiously in:

- Pre-existing hepatic dysfunction (dosage reduction recommended)
- History of suicide attempt or drug addiction
- Geriatric or debilitated patients (initial dosage reduction recommended).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, excessive sedation, hangover, headache, anterograde amnesia, confusion, lethargy, mental depression, paradoxical excitation.

EENT: blurred vision.

GI: constipation, diarrhea, nausea, vomiting.

Continued on the following page

Derm: rashes.

Misc: physical dependence, psychological dependence, tolerance.

INTERACTIONS

Drug–Drug:

- **Cimetidine, erythromycin, fluconazole, itraconazole, ketoconazole, indinavir, nelfinavir, ritonavir, or saquinavir** may decrease metabolism and enhance actions of triazolam; combination should be avoided
- Additive CNS depression with alcohol, antidepressants, antihistamines, and opioid analgesics
- May decrease effectiveness of levodopa
- May increase toxicity of zidovudine
- Isoniazid may decrease excretion and increase effects of triazolam
- Sedative effects may be decreased by theophylline.

Drug–Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can increase CNS depression.

Drug–Food:

- Grapefruit juice significantly increases blood levels and effects.

ROUTE AND DOSAGE

- PO (Adults): 125–250 mcg (up to 500 mcg) at bedtime.
- PO (Geriatric Patients or Debilitated Patients): 125 mcg at bedtime initially; may be increased as needed.

AVAILABILITY

- **Tablets:** 125 mcg^{Rx}, 250 mcg^{Rx}
- **Cost:** generic—0.125 mg \$67.30/100, 0.25 mg \$72.30/100; Halcion—0.125 mg \$102.00/100, 0.25 mg \$111.54/100.

TIME/ACTION PROFILE (sedation)

	ONSET	PEAK	DURATION
PO	15–30 min	6–8 hr	unknown

NURSING IMPLICATIONS

ASSESSMENT

- Assess sleep patterns prior to and periodically throughout therapy.
- Prolonged high-dose therapy may lead to psychological or physical dependence. Restrict the amount of drug available to patient, especially if patient is depressed, suicidal, or has a history of addiction.

POTENTIAL NURSING DIAGNOSES

- Sleep pattern, disturbed (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Supervise ambulation and transfer of patients following administration. Remove cigarettes. Side rails should be raised and call bell within reach at all times.
- **PO:** Administer with food if GI irritation becomes a problem.

PATIENT/FAMILY TEACHING

- Instruct patient to take triazolam exactly as directed. Discuss the importance of preparing environment for sleep (dark room, quiet, avoidance of nicotine and caffeine). If less effective after a few weeks, consult health care professional; do not increase dose.
- May cause daytime drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.

Continued on the following page

- Advise patient to avoid the use of alcohol and other CNS depressants and to consult health care professional prior to using OTC preparations that contain antihistamines or alcohol.
- Advise patient to inform health care professional if pregnancy is planned or suspected or if confusion, depression, or persistent headaches occur. Instruct family or caregiver to notify health care professional if personality changes occur.
- Instruct patient to notify health care professional if an increase in daytime anxiety occurs. May occur after as few as 10 days of therapy. May require discontinuation of triazolam.

- Emphasize the importance of follow-up appointments to monitor progress.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Improvement in sleep patterns, which may not be noticeable until the 3rd day of therapy.

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trihexyphenidyl

(trye-hex-ee-fen-i-dill)

Apo-Trihex, Artane, PMS-Trihexyphenidyl, Trihexane, Trihexy

CLASSIFICATION(S):

Therapeutic: antiparkinson agents

Pharmacologic: anticholinergics

Pregnancy Category C

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INDICATIONS

- Adjunct in the management of parkinsonian syndrome of many causes, including drug-induced parkinsonism.

ACTION

- Inhibits the action of acetylcholine, resulting in:
 - Decreased sweating and salivation
 - Mydriasis (pupillary dilation)
 - Increased heart rate
- Also has spasmolytic action on smooth muscle
- Inhibits cerebral motor centers and blocks efferent impulses.
- **Therapeutic Effects:**
 - Diminished signs and symptoms of parkinsonian syndrome (tremors, rigidity).

PHARMACOKINETICS

Absorption: Well absorbed following oral administration.

Distribution: Unknown.

Metabolism and Excretion: Excreted mostly in urine.

Half-life: 3.7 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity

- Narrow-angle glaucoma
- Acute hemorrhage
- Tachycardia secondary to cardiac insufficiency
- Thyrotoxicosis
- Known alcohol intolerance (elixir only).

Use Cautiously in:

- Geriatric and very young patients (increased risk of adverse reactions)
- Intestinal obstruction or infection
- Prostatic hypertrophy
- Chronic renal, hepatic, pulmonary, or cardiac disease
- Pregnancy, lactation, or children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: dizziness, nervousness, confusion, drowsiness, headache, psychoses, weakness.

EENT: blurred vision, mydriasis.

CV: orthostatic hypotension, tachycardia.

Continued on the following page

GI: dry mouth, nausea, constipation, vomiting.

GU: urinary hesitancy, urinary retention.

Derm: decreased sweating.

INTERACTIONS

Drug–Drug:

- Additive anticholinergic effects with other drugs having anticholinergic properties, including phenothiazines, tricyclic antidepressants, quinidine, and disopyramide
- May increase the efficacy of levodopa but may increase the risk of psychoses
- Additive CNS depression with other CNS depressants, including alcohol, antihistamines, opioids, and sedative/hypnotics
- Anticholinergics may alter the absorption of other orally administered drugs by slowing motility of the GI tract
- Antacids may decrease absorption
- May increase GI mucosal lesions in patients taking oral solid oral potassium chloride preparations.

Drug–Natural:

- Increased anticholinergic effects with angel's trumpet and jimson weed and scopolia.

ROUTE AND DOSAGE

- **PO (Adults):** 1–2 mg/day initially; increase by 2 mg q 3–5 days. Usual maintenance dose is 6–10 mg/day in 3 divided doses (up to 15 mg/day). Extended-release (Artane Sequels) preparations may be given q 12 hr after daily dose has been determined using conventional tablets or liquid.

AVAILABILITY

- **Tablets:** 2 mg^{Rx}, 5 mg^{Rx}
- **Elixir (lime-mint flavor):** 2 mg/5 ml^{Rx}
- **Extended-release capsules:** 5 mg^{Rx}.

TIME/ACTION PROFILE (antiparkinson effects)

	ONSET	PEAK	DURATION
PO	1 hr	2–3 hr	6–12 hr
PO-ER	unknown	unknown	12–24 hr

NURSING IMPLICATIONS

ASSESSMENT

- Assess parkinsonian and extrapyramidal symptoms (restlessness or desire to keep moving, rigidity, tremors, pill rolling, mask-like face, shuffling gait, muscle spasms, twisting motions, difficulty speaking or swallowing, loss of balance control) prior to and throughout therapy.
- Monitor intake and output ratios and assess patient for urinary retention (dysuria, distended abdomen, infrequent voiding of small amounts, overflow incontinence).
- Patients with mental illness are at risk of developing exaggerated symptoms of their disorder during early therapy with this medication. Withhold drug and report significant behavioral changes.

POTENTIAL NURSING DIAGNOSES

- Mobility, impaired physical (Indications).
- Injury, risk for (Indications).
- Knowledge, deficient, related to medication regimen (Patient/Family Teaching).

IMPLEMENTATION

- **General:** Do not confuse Artane (*trihexyphenidyl*) with Altace (*ramapril*).
 - Extended-release capsules are not used until dosage is established with shorter-acting forms.
- **PO:** Usually administered after meals. May be administered

Continued on the following page

before meals if patient suffers from dry mouth or with meals if gastric distress is a problem. Extended-release capsules should be swallowed whole; do not break, crush, or chew. Use calibrated measuring device to ensure accurate dosage of elixir.

PATIENT/FAMILY TEACHING

- Instruct patient to take this drug exactly as directed. If a dose is missed, take as soon as remembered, unless next scheduled dose is within 2 hr; do not double doses.
- Medication should be tapered gradually when discontinuing or a withdrawal reaction may occur (anxiety, tachycardia, insomnia, return of parkinsonian or extrapyramidal symptoms).
- May cause drowsiness or dizziness. Advise patient to avoid driving or other activities that require alertness until response to medication is known.
- Caution patient to change positions slowly to minimize orthostatic hypotension.
- Instruct patient that frequent rinsing of mouth, good oral hygiene, and sugarless gum or candy may decrease dry mouth. Patient should notify health care professional if dryness persists (saliva substitutes may be used). Also, notify the dentist if dryness interferes with use of dentures.
- Advise patient to confer with health care professional prior to

taking OTC medications, especially cold remedies, or drinking alcoholic beverages.

- Caution patient that this medication decreases perspiration. Overheating may occur during hot weather. Patient should remain indoors, in an air-conditioned environment, during hot weather.
- Advise patient to increase activity and bulk and fluid in diet to minimize constipating effects of medication.
- Advise patient to avoid taking antacids or antidiarrheals within 1–2 hr of this medication.
- Advise patient to notify health care professional if confusion, rash, urinary retention, severe constipation, or visual changes occur.
- Emphasize the importance of routine follow-up exams.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in tremors and rigidity and an improvement in gait and balance. Therapeutic effects are usually seen 2–3 days after the initiation of therapy
- Resolution of drug-induced extrapyramidal symptoms.

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valproates

divalproex sodium

(dye-val-proe-exsoe-dee-um)

Depakote, Depakote ER, Epival

valproate sodium

(val-proe-atesoe-dee-um)

Depacon

valproic acid

(val-proe-ikas-id)

Depakene

CLASSIFICATION(S):

Therapeutic: anticonvulsants, vascular headache suppressants

Pregnancy Category D

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INDICATIONS

- Simple and complex absence seizures
- Partial seizures with complex symptomatology
- **Divalproex only:**
 - Manic episodes associated with bipolar disorder (delayed-release only)
 - Prevention of migraine headache (delayed and extended release).
- **Unlabelled Uses:**
 - **IV:** Treatment of migraine headache.

ACTION

- Increase levels of GABA, an inhibitory neurotransmitter in the CNS.

■ Therapeutic Effects:

- Suppression of absence seizures
- Decreased manic behavior
- Decreased frequency of migraine headaches.

PHARMACOKINETICS

Absorption: Well absorbed following oral administration; divalproex is enteric-coated, and absorption is delayed. ER form produces lower blood levels.. IV administration results in complete bioavailability.

Distribution: Rapidly distributed into plasma and extracellular water. Cross blood-brain barrier and placenta; enter breast milk.

Continued on the following page

Protein Binding: 90–95%.

Metabolism and Excretion: Mostly metabolized by the liver; minimal amounts excreted unchanged in urine.

Half-life: 5–20 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Hepatic impairment
- Some products contain tartrazine; avoid in patients with known hypersensitivity
- Known/suspected urea cycle disorders (may result in fatal hyperammonemic encephalopathy).

Use Cautiously in:

- Bleeding disorders
- History of liver disease
- Organic brain disease
- Bone marrow depression
- Renal impairment
- Children (increased risk of hepatotoxicity)
- Pregnancy and lactation (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: confusion, dizziness, headache, sedation.

EENT: visual disturbances.

GI: **HEPATOTOXICITY**, indigestion, nausea, vomiting, anorexia, constipation, diarrhea, hypersalivation, increased appetite, pancreatitis.

Derm: rashes.

Hemat: leukopenia, prolonged bleeding time, thrombocytopenia.

Metab: hyperammonemia.

Neuro: ataxia, paresthesia.

INTERACTIONS

Drug–Drug:

- ↑ risk of bleeding with antiplatelet agents (including aspirin, NSAIDs, tirofiban, eptifibatide, and abciximab) cefoperazone, cefotetan, heparins and thrombolytic agents, or warfarin
- ↓ metabolism of barbiturates and primidone, ↑ risk of toxicity
- Blood levels and toxicity may be ↑ by carbamazepine, cimetidine, erythromycin, or felbamate
- ↑ CNS depression with other CNS depressants, including alcohol, antihistamines, antidepressants, opioid analgesics, MAO inhibitors, and sedative/hypnotics
- ↑ doses of salicylates (in children) increase the effects of valproic acid
- May ↑ or ↓ effects and toxicity of phenytoin
- MAO inhibitors and other antidepressants may ↓ seizure threshold and ↓ effectiveness of valproates
- Carbamazepine, rifampin, or lamotrigine may ↓ valproic acid blood levels
- Valproic acid may ↑ toxicity of carbamazepine, ethosuximide, lamotrigine, or zidovudine.

ROUTE AND DOSAGE

Doses expressed in mg of valproic acid.

Anticonvulsant

- PO (Adults and children > 10 yr): *Single-agent therapy*—Initial dose of 5–15 mg/kg/day; increase by 5–10 mg/kg/day weekly until therapeutic levels are reached (not to exceed 60

Continued on the following page

mg/kg/day); when daily dosage exceeds 250 mg, give in 2 divided doses. *Polytherapy*—Initial dose of 10–30 mg/kg/day; increase by 5–10 mg/kg/day weekly until therapeutic levels are reached (not to exceed 60 mg/kg/day); when daily dosage exceeds 250 mg, give in 2 divided doses.

- **PO (Children):** *Single-agent therapy*—Initial dose of 15–45 mg/kg/day; increase by 5–10 mg/kg/day weekly until therapeutic levels are reached. *Polytherapy*—Initial dose of 30–100 mg/kg/day.
- **IV (Adults and Children):** Give same daily dose as was given orally; if daily dose >250 mg, give in divided doses q 6 hr. In patients with no detectable levels, may be given as a one-time infusion of 1000 mg.

Antimanic

- **PO (Adults):** *Divalproex*—750 mg/day in divided doses initially, titrated rapidly to desired clinical effect or trough plasma levels of 50–125 mcg/ml (not to exceed 60 mg/kg/day).

Migraine Prevention

- **PO (Adults):** *Divalproex*—250 mg twice daily (up to 1000 mg/day) as delayed-release tablets (Depakote) or 500 mg once daily initially as extended-release tablets (Depakote ER), increased after one week to 1000 mg once daily.

AVAILABILITY

- **Valproic Acid**
 - *Capsules:* 250 mg^{Rx}, 500 mg^{Rx}
 - *Syrup:* 250 mg/5 ml^{Rx}.
- **Valproate Sodium**
 - *Injection:* 100 mg/ml in 5-ml vials^{Rx}.
- **Divalproex Sodium**
 - *Delayed-release tablets (Depakote):* 125 mg^{Rx}, 250 mg^{Rx}, 500 mg^{Rx}

- **Cost:** 125 mg \$50.15/100, 250 mg \$98.48/100, 500 mg \$181.63/100

- *Capsules-sprinkle:* 125 mg^{Rx}
- *Extended-release tablets (Depakote ER):* 250 mg^{Rx}, 500 mg^{Rx}

TIME/ACTION PROFILE (onset = anticonvulsant effect; peak = blood levels)

	ONSET	PEAK	DURATION
PO—liquid	2–4 days	15–120 min	6–24 hr
PO—capsules	2–4 days	1–4 hr	6–24 hr
PO—delayed-release products	2–4 days	3–5 hr	12–24 hr
PO—extended-release products	2–4 days	7–14 hr	24 hr
IV	2–4 days	end of infusion	6–24 hr

NURSING IMPLICATIONS

ASSESSMENT

- **Seizures:** Assess location, duration, and characteristics of seizure activity. Institute seizure precautions.
- **Bipolar Disorder:** Assess mood, ideation, and behavior frequently.
- **Migraine Prophylaxis:** Monitor frequency of migraine headaches.
- **Lab Test Considerations:** Monitor CBC, platelet count, and bleeding time prior to and periodically during therapy. May cause leukopenia and thrombocytopenia.

Continued on the following page

Psychotropic Drugs: *valproates* (Cont'd)

- Monitor hepatic function (LDH, AST, ALT, and bilirubin) and serum ammonia concentrations prior to and periodically during therapy. May cause hepatotoxicity; monitor closely, especially during initial 6 mo of therapy; fatalities have occurred. Therapy should be discontinued if hyperammonemia occurs.
- May interfere with accuracy of thyroid function tests and decrease response to metyrapone tests.
- May cause false-positive results in urine ketone tests.
- **Toxicity and Overdose:** Therapeutic serum levels range from 50–100 mcg/ml. Doses are gradually ↑ until a predose serum concentration of at least 50 mcg/ml is reached. However, a good correlation among daily dose, serum level, and therapeutic effects has not been established. Patients receiving near the maximum recommended 60 mg/kg/day should be monitored for toxicity.

POTENTIAL NURSING DIAGNOSES

- Injury, risk for (Indications).

IMPLEMENTATION

- **General:** Do not confuse Depakote ER and regular dose forms; available in same strengths. Depakote ER produces lower blood levels than Depakote dosing forms. If switching from Depakote to Depakote ER, increase dose by 8-20%.
 - Single daily doses are usually administered at bedtime because of sedation.
- **PO:** Administer with or immediately after meals to minimize GI irritation. Tell patient to swallow extended-release and delayed-release tablets whole, not to break or chew them, because this will cause irritation of the mouth or throat. Do not administer tablets with milk, to prevent premature dissolution. Delayed-release divalproex sodium may cause less GI irritation than valproic acid capsules.
 - Shake liquid preparations well before pouring. Use calibrated measuring device to ensure accurate dosage. Syrup may be mixed with food or other liquids to improve taste.

- Sprinkle capsules may be swallowed whole or opened and entire capsule contents sprinkled on a teaspoonful of soft, cool food (applesauce, pudding). Tell patient to swallow drug/food mixture immediately, not to chew it. Do not store for future use.
- To convert from valproic acid to divalproex sodium, initiate divalproex sodium at same total daily dose and dosing schedule as valproic acid. Once patient is stabilized on divalproex sodium, attempt administration 2–3 times daily.
- **Intermittent Infusion:** May be diluted in D5W, 0.9% NaCl, or LR. Solution is stable for 24 hr at room temperature.
- **Rate:** Infuse over 60 min (≤20 mg/min). Rapid infusion may cause increased side effects. Has been given as a one-time infusion of 1000 mg over 5-10 min @ 3 mg/kg/min up to 15 mg/kg in patients with no detectable levels.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication as directed. If a dose is missed on a once-a-day schedule, take as soon as remembered that day. If on a multiple-dose schedule, take it within 6 hr of the scheduled time, then space remaining doses throughout the remainder of the day. Abrupt withdrawal may lead to status epilepticus.
- May cause drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until effects of medication are known. Tell patient not to resume driving until physician gives clearance based on control of seizure disorder.
- Caution patient to avoid taking alcohol, CNS depressants, OTC medications or herbal products concurrently with valproates without consulting health care professional.
- Instruct patient to notify health care professional of medication regimen prior to treatment or surgery.
- Advise patient to carry identification at all times describing medication regimen.

Continued on the following page

- Advise patient to notify health care professional if anorexia, abdominal pain severe nausea and vomiting, yellow skin or eyes, fever, sore throat, malaise, weakness, facial edema, lethargy, unusual bleeding or bruising, pregnancy, or loss of seizure control occurs. Children <2 yr of age are especially at risk for fatal hepatotoxicity.
- Emphasize the importance of routine exams to monitor progress.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Decrease in or cessation of seizures without excessive sedation
- Decreased incidence of mood swings in patients with bipolar disorders
- Decreased frequency of migraine headaches.

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venlafaxine

(ven-la-fax-een)

Effexor, Effexor XR

CLASSIFICATION(S):

Therapeutic: antidepressants, antianxiety agents

Pregnancy Category C

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INDICATIONS

- Major depressive illness or relapse, often in conjunction with psychotherapy
- Generalized anxiety disorder (Effexor XR only)
- Social anxiety disorder (Effexor XR only).
- Unlabelled Uses:
 - Premenstrual dysphoric disorder (PMDD).

ACTION

- Inhibits serotonin and norepinephrine reuptake in the CNS.
- **Therapeutic Effects:**
 - Decrease in depressive symptomatology, with fewer relapses/recurrences.
 - Decreased anxiety.

PHARMACOKINETICS

Absorption: 92–100% absorbed after oral administration.

Distribution: Extensive distribution into body tissues.

Metabolism and Excretion: Extensively metabolized on 1st pass through the liver. One metabolite, O-desmethylvenlafaxine (ODV), has antidepressant activity; 5% of venlafaxine is excreted unchanged in urine; 30% of the active metabolite is excreted in urine.

Half-life: *Venlafaxine*—3–5 hr; *ODV*—9–11 hr (both are increased in hepatic/renal impairment).

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Concurrent MAO inhibitor therapy.

Use Cautiously in:

- Cardiovascular disease, including hypertension
- Hepatic impairment (↓ dose recommended)
- Impaired renal function (↓ dose recommended)
- History of seizures or neurologic impairment
- History of mania
- History of drug abuse
- Pregnancy, lactation, or children <18 yr (use only if clearly required during pregnancy; safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **SEIZURES**, abnormal dreams, anxiety, dizziness, headache, insomnia, nervousness, weakness, abnormal thinking, agitation, confusion, depersonalization, drowsiness, emotional lability, worsening depression.

EENT: rhinitis, visual disturbances, tinnitus.

Continued on the following page

- CV:** chest pain, hypertension, palpitations, tachycardia.
GI: abdominal pain, altered taste, anorexia, constipation, diarrhea, dry mouth, dyspepsia, nausea, vomiting, weight loss.
GU: sexual dysfunction, urinary frequency, urinary retention.
Derm: ecchymoses, itching, photosensitivity, skin rash.
Neuro: paresthesia, twitching.
Misc: chills, yawning.

INTERACTIONS

Drug–Drug:

- Concurrent use with MAO inhibitors may result in serious, potentially fatal reactions (wait at least 2 wk after stopping MAO inhibitor before initiating venlafaxine; wait at least 1 wk after stopping venlafaxine before starting MAO inhibitors)
- Concurrent use with alcohol or other CNS depressants, including sedative/hypnotics, antihistamines, and opioid analgesics, in depressed patients is not recommended
- ↑ risk of serotonin syndrome with trazodone, sibutramine, and sumatriptan
- Lithium may have ↑ serotonergic effects with venlafaxine; use cautiously in patients receiving venlafaxine
- ↑ blood levels and may ↑ effects of desipramine and haloperidol
- Cimetidine may ↑ the effects of venlafaxine (may be more pronounced in geriatric patients, those with hepatic or renal impairment, or those with pre-existing hypertension).

Drug–Natural:

- Concomitant use of kava, valerian, skullcap, chamomile, or hops can ↑ CNS depression

- ↑ risk of serotonergic side effects including serotonin syndrome with St. John's wort and SAME.

ROUTE AND DOSAGE

- **PO (Adults):** *Tablets*—75 mg/day in 2–3 divided doses; may increase by up to 75 mg/day every 4 days, up to 225 mg/day (not to exceed 375 mg/day in 3 divided doses); *Extended-release (XR) capsules*—75 mg once daily (some patients may be started at 37.5 mg once daily) for 4–7 days; doses may then be increased at intervals of not less than 4 days up to 225 mg/day.

Hepatic Impairment

- **PO (Adults):** Decrease daily dose by 50% in patients with moderate hepatic impairment.

Renal Impairment

- **PO (Adults):** Mild to moderate renal impairment—Daily dose should be decreased by 25–50%.

AVAILABILITY

- **Tablets:** 25 mg^{Rx}, 37.5 mg^{Rx}, 50 mg^{Rx}, 75 mg^{Rx}, 100 mg^{Rx}
- **Cost:** 25 mg \$137.88/100, 37.5 mg \$142.00/100, 50 mg \$146.22/100, 75 mg \$155.05/100, 100 mg \$164.32/100
- **Extended-release capsules:** 37.5 mg^{Rx}, 75 mg^{Rx}, 150 mg^{Rx}
- **Cost:** 37.5 mg \$233.56/100, 75 mg \$261.63/100, 150 mg \$285.00/100.

TIME/ACTION PROFILE (antidepressant action)

	ONSET	PEAK	DURATION
PO	within 2 wk	2–4 wk	unknown

Continued on the following page

Psychotropic Drugs: *venlafaxine* (Cont'd)

NURSING IMPLICATIONS

ASSESSMENT

- Assess mental status and mood changes. Inform physician or other health care professional if patient demonstrates significant increase in anxiety, nervousness, or insomnia.
- Assess suicidal tendencies, especially in early therapy. Restrict amount of drug available to patient.
- Monitor blood pressure before and periodically during therapy. Sustained hypertension may be dose related; decrease dose or discontinue therapy if this occurs.
- Monitor appetite and nutritional intake. Weigh weekly. Report continued weight loss. Adjust diet as tolerated to support nutritional status.
- **Lab Test Considerations:** Monitor CBC with differential and platelet count periodically during therapy. May cause anemia, leukocytosis, leukopenia, thrombocytopenia, basophilia, and eosinophilia.
 - May cause an ↑ in serum alkaline phosphatase, bilirubin, AST, ALT, BUN, and creatinine.
 - May also cause ↑ serum cholesterol.
 - May cause electrolyte abnormalities (hyperglycemia or hypoglycemia, hyperkalemia or hypokalemia, hyperuricemia, hyperphosphatemia or hypophosphatemia, and hyponatremia).

POTENTIAL NURSING DIAGNOSES

- Coping, ineffective (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- PO: Administer venlafaxine with food.
 - **Extended-release capsules should be swallowed whole; do not crush, break, or chew.**
 - Extended-release capsules may also be opened and contents sprinkled on a spoonful of applesauce. Take immediately and follow with a glass of water. Do not store mixture for later use.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication exactly as directed at the same time each day. Take missed doses as soon as possible unless almost time for next dose. Do not double doses or discontinue abruptly. Patients taking venlafaxine for >6 wk should have dose gradually decreased before discontinuation.
- May cause drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until response to the drug is known.
- Caution patient to avoid taking alcohol or other CNS-depressant drugs during therapy and not to take other Rx, OTC, or herbal products without consulting health care professional.
- Instruct female patients to inform health care professional if pregnancy is planned or suspected or if breastfeeding.
- Instruct patient to notify health care professional if signs of allergy (rash, hives) occur.
- Emphasize the importance of follow-up exams to monitor progress. Encourage patient participation in psychotherapy.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Increased sense of well-being
 - Renewed interest in surroundings. Need for therapy should be periodically reassessed. Therapy is usually continued for several months
- Decreased anxiety.

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ziprasidone

(zi-pra-si-done)
Geodon

CLASSIFICATION(S):

Therapeutic: antipsychotics

Pharmacologic: piperazine derivatives

Pregnancy Category C

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INDICATIONS

- Schizophrenia; IM form is reserved for control of acutely agitated patients.

ACTION

- Effects probably mediated by antagonism of dopamine type 2 (D₂) and serotonin type 2 (5-HT₂). Also antagonizes α_2 adrenergic receptors.
- **Therapeutic Effects:**
 - Diminished schizophrenic behavior

PHARMACOKINETICS

Absorption: 60% absorbed following oral administration; 100% absorbed from IM sites.

Distribution: Unknown.

Protein Binding: 99%; potential for drug interactions due to drug displacement is minimal.

Metabolism and Excretion: 99% metabolized by the liver; <1% excreted unchanged in urine.

Half-life: PO—7 hr; IM—2–5 hr.

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- History of QT prolongation (persistent QTc measurements

>500 msec), arrhythmias, recent MI or uncompensated heart failure

- Concurrent use of other drugs known to prolong the QT interval including quinidine, dofetilide, sotalol, other class Ia and III antiarrhythmics, pimozone, sotalol, thioridazine, mesoridazine, chlorpromazine, floquine, pentamidine, arsenic trioxide, halofantrine, mefloquine, dolasetron, tacrolimus, droperidol, gatifloxacin, moxifloxacin, and sparfloxacin
- Hypokalemia or hypomagnesemia
- Lactation.

Use Cautiously in:

- Concurrent diuretic therapy or diarrhea (may increase the risk of hypotension, hypokalemia, or hypomagnesemia)
- Patients with significant hepatic impairment
- History of cardiovascular or cerebrovascular disease
- Hypotension, concurrent antihypertensive therapy, dehydration, or hypovolemia (may ↑ risk of orthostatic hypotension)
- Alzheimer's dementia or age >65 yr (may ↑ risk of seizures)
- Patients at risk for aspiration pneumonia
- History of suicide attempt
- Geriatric patients (consider initiating therapy at lower dose)
- Pregnancy (use only if potential benefit outweighs potential risk to the fetus)
- Children <18 yr (safety not established).

Continued on the following page

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: **NEUROLEPTIC MALIGNANT SYNDROME**, seizures, dizziness, drowsiness, restlessness, extrapyramidal reactions, syncope, tardive dyskinesia.

Resp: cough/runny nose.

CV: **PROLONGED QT INTERVAL**, orthostatic hypotension.

GI: constipation, diarrhea, nausea, dysphagia.

Derm: rash, urticaria.

INTERACTIONS

Drug–Drug:

- Concurrent use of **quinidine, dofetilide, other class Ia and III antiarrhythmics, pimozide, sotalol, thioridazine, mesoridazine, chlorpromazine, floquine, pentamidine, arsenic trioxide, halofantrine, mefloquine, dolasetron, tacrolimus, droperidol, gatifloxacin, moxifloxacin, and sparfloxacin** or other agents that prolong the QT interval may result in potentially life-threatening adverse drug reactions and is contraindicated
- Additive CNS depression may occur with **alcohol, antidepressants, antihistamines, opioid analgesics, or sedative/hypnotics**
- Blood levels and effectiveness may be ↓ by **carbamazepine**
- Blood levels and effects may be ↑ by **ketoconazole**.

ROUTE AND DOSAGE

- **PO (Adults):** 20 mg twice daily initially; dose increments may be made at 2-day intervals up to 80 mg twice daily.
- **IM (Adults):** 10–20 mg as needed up to 40 mg/day; may be given as 10 mg every 2 hr or 20 mg every 4 hr.

AVAILABILITY

- **Capsules:** 20 mg^{Rx}, 40 mg^{Rx}, 60 mg^{Rx}, 80 mg^{Rx}
- **Lyophilized powder for injection (requires reconstitution):** 20 mg/vial^{Rx}

TIME/ACTION PROFILE (blood levels)

	ONSET	PEAK	DURATION
PO	within hours	1–3 days [†]	unknown
IM	rapid	60 min	unknown

[†]Steady state achieved following continuous use.

NURSING IMPLICATIONS

ASSESSMENT

- Monitor patient's mental status (delusions, hallucinations, and behavior) prior to, and periodically during therapy.
- Monitor blood pressure (sitting, standing, lying) and pulse rate prior to and frequently during initial dosage titration. Patients found to have persistent QTc measurements of >500 msec should have ziprasidone discontinued. Patients who experience dizziness, palpitations, or syncope may require further evaluation (i.e., Holter monitoring).
- Assess patient for rash during therapy. May be treated with antihistamines or corticosteroids. Usually resolves upon discontinuation of ziprasidone. Medication should be discontinued if no alternative etiology for rash is found.
- Observe patient carefully when administering medication to ensure medication is actually taken and not hoarded.
- Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (*parkinsonian*—difficulty speaking or swallowing, loss of balance control, pill rolling, mask-like face, shuffling gait, rigidity, tremors and dystonic muscle spasms, twisting motions,

Continued on the following page

Psychotropic Drugs: ziprasidone (Cont'd)

twitching, inability to move eyes, weakness of arms or legs) every 2 mo during therapy and 8–12 wk after therapy has been discontinued. Notify physician or other health care professional if these symptoms occur, as reduction in dose or discontinuation of medication may be necessary.

Trihexyphenidyl or diphenhydramine may be used to control these symptoms.

- Although not yet reported for ziprasidone, monitor for possible tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities, lip smacking or puckering, puffing of cheeks, uncontrolled chewing, rapid or worm-like movements of tongue). Report these symptoms immediately; may be irreversible.
- Monitor frequency and consistency of bowel movements. Increasing bulk and fluids in the diet may help to minimize constipation.
- Ziprasidone lowers the seizure threshold. Institute seizure precautions for patients with history of seizure disorder.
- **Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, seizures, diaphoresis, hypertension or hypotension, pallor, tiredness). Notify physician immediately if these symptoms occur.**
- **Lab Test Considerations:** Monitor serum potassium and magnesium prior to and periodically during therapy. Patients with low potassium or magnesium should have levels treated and check prior to resuming therapy.

POTENTIAL NURSING DIAGNOSES

- Violence, risk for other-directed (Indications).
- Thought process, disturbed (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Dosage adjustments should be made at intervals of no less than 2 days. Usually patients should be observed for several weeks before dose titration.
 - Patients on parenteral therapy should be converted to oral doses as soon as possible.

- **PO:** Administer capsules with food or milk to decrease gastric irritation. Capsules should be swallowed whole; do not open.

PATIENT/FAMILY TEACHING

- Instruct patient to take medication as directed. Do not discontinue medication without discussing with health care professional, even if feeling well. Patients on long-term therapy may need to discontinue gradually.
- Inform patient of possibility of extrapyramidal symptoms. Instruct patient to report these symptoms immediately.
- Advise patient to change positions slowly to minimize orthostatic hypotension.
- May cause seizures and drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Caution patient to avoid concurrent use of alcohol, other CNS depressants, OTC medications and herbal/alternative products without consulting health care professional.
- Advise patient to notify health care professional of medication regimen prior to treatment or surgery.
- Instruct patient to notify health care professional promptly if dizziness, loss of consciousness, or palpitations occur or if pregnancy is planned or suspected.
- Advise patient of need for continued medical follow-up for psychotherapy, eye exams, and laboratory tests.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Diminished schizophrenic behaviors (hearing voices, seeing things, sensing things that are not there, mistaken beliefs, unusual suspiciousness, becoming withdrawn from family and friends).

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zolpidem

(zole-pi-dem)

Ambien

CLASSIFICATION(S):

Therapeutic: sedative/hypnotics

Pregnancy Category B

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INDICATIONS

- Insomnia.

ACTION

- Produces CNS depression by binding to GABA receptors
- Has no analgesic properties.
- **Therapeutic Effects:**
 - Sedation and induction of sleep.

PHARMACOKINETICS

Absorption: Rapidly absorbed following oral administration.

Distribution: Minimal amounts enter breast milk; remainder of distribution not known.

Metabolism and Excretion: Converted to inactive metabolites, which are excreted by the kidneys.

Half-life: 2.5–2.6 hr (increased in geriatric patients and patients with hepatic impairment).

CONTRAINDICATIONS AND PRECAUTIONS

Contraindicated in:

- Hypersensitivity
- Sleep apnea.

Use Cautiously in:

- History of previous psychiatric illness, suicide attempt, drug or alcohol abuse
- Geriatric patients and patients with impaired hepatic function (initial dosage reduction recommended)
- Patients with pulmonary disease
- Pregnancy, lactation, or children (safety not established).

ADVERSE REACTIONS AND SIDE EFFECTS*

***CAPITALS** indicate life threatening; underlines indicate most frequent.

CNS: amnesia, daytime drowsiness, dizziness, “drugged” feeling.

GI: diarrhea, nausea, vomiting.

Misc: hypersensitivity reactions, physical dependence, psychological dependence, tolerance.

INTERACTIONS

Drug–Drug:

- ↑ CNS depression may with sedative/hypnotics, alcohol, phenothiazines, tricyclic antidepressants, opioid analgesics, or antihistamines.

Continued on the following page

Drug–Natural:

- Concomitant use of kava, valerian or chamomile can ↑ CNS depression.

Drug–Food:

- Food ↓ and delays absorption.

ROUTE AND DOSAGE

- PO (Adults): 10 mg at bedtime.
- PO (Geriatric Patients, Debilitated Patients, or Patients with Hepatic Impairment): 5 mg at bedtime initially; may be increased to 10 mg.

AVAILABILITY

- **Tablets:** 5 mg^{Rx}, 10 mg^{Rx}
- **Cost:** 5 mg \$207.56/100, 10 mg \$255.30/100.

TIME/ACTION PROFILE (sedation)

	ONSET	PEAK	DURATION
PO	rapid	30 min–2 hr	6–8 hr

NURSING IMPLICATIONS

ASSESSMENT

- Assess mental status, sleep patterns, and potential for abuse prior to administration. Prolonged use of >7–10 days may lead to physical and psychological dependence. Limit amount of drug available to the patient.
- Assess alertness at time of peak effect. Notify physician or other health care professional if desired sedation does not occur.
- Assess patient for pain. Medicate as needed. Untreated pain decreases sedative effects.

POTENTIAL NURSING DIAGNOSES

- Sleep pattern, disturbed (Indications).
- Injury, risk for (Side Effects).

IMPLEMENTATION

- **General:** Before administering, reduce external stimuli and provide comfort measures to increase effectiveness of medication.
 - Protect patient from injury. Raise bed side rails. Assist with ambulation. Take patient's cigarettes.
- **PO:** Tablets should be swallowed whole with full glass of water. For faster onset of sleep, do not administer with or immediately after a meal.

PATIENT/FAMILY TEACHING

- Instruct patient to take zolpidem as directed. Do not take more than the amount prescribed because of the habit-forming potential. Not recommended for use longer than 7–10 days. If used for 2 wk or longer, abrupt withdrawal may result in fatigue, nausea, flushing, light-headedness, uncontrolled crying, vomiting, GI upset, panic attack, or nervousness.
- Because of rapid onset, advise patient to go to bed immediately after taking zolpidem.
- May cause daytime drowsiness or dizziness. Advise patient to avoid driving or other activities requiring alertness until response to this medication is known.
- Caution patient to avoid concurrent use of alcohol or other CNS depressants.

EVALUATION

Effectiveness of therapy can be demonstrated by:

- Relief of insomnia.

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Drug Classifications

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[Antianxiety Agents](#)

[Antidepressants](#)

[Mood-Stabilizing Drugs](#)

[Antipsychotic Agents](#)

[Antiparkinsonian Agents](#)

[Sedative-Hypnotics](#)

[Central Nervous System](#)

■ CHEMICAL CLASS: ANTIHISTAMINES

Examples

Generic Name	Trade Name	Half-life	Pregnancy Category	Available Forms (mg)
Hydroxyzine	Atarax	3 h	C	Tabs: 10, 25, 50, 100 Syrup: 10 mg/5 mL
	Vistaril	3 h	C	Caps: 25, 50, 100 Oral suspension: 25 mg/5 mL Injection: 25 mg/mL, 50 mg/mL

Indications

- Anxiety disorders
- Temporary relief of anxiety symptoms
- Allergic reactions producing pruritic conditions
- Antiemetic
- Reduction of narcotic requirement, alleviation of anxiety, and control of emesis in preoperative/postoperative and prepartum/postpartum clients

Action

- Exerts central nervous system (CNS)–depressant activity at the subcortical level of the CNS
- Have anticholinergic, antihistaminic, and antiemetic properties

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Pregnancy and lactation

Use cautiously in:

- Elderly or debilitated patients (dosage reduction recommended)
- Hepatic or renal dysfunction
- Concomitant use of other CNS depressants

Adverse Reactions and Side Effects

- Dry mouth
- Drowsiness
- Pain at intramuscular site

Interactions

- Additive CNS depression with other CNS depressants (e.g., alcohol, other anxiolytics, opioid analgesics, and sedative/hypnotics) and with herbal depressants (e.g., kava, valerian).
- Additive anticholinergic effects with other drugs possessing anticholinergic properties (e.g., antihistamines, antidepressants, atropine, haloperidol, phenothiazines) and herbal products such as angel's trumpet, jimson weed, and scopolia.

Route and Dosage

Intramuscular

- Anxiety: *Adults*—50 to 100 mg 4 times/day
- Pruritus: *Adults*—25 mg 3 or 4 times/day
- Pre- and postoperative sedative: *Adults*—50 to 100 mg; *children*—0.6 mg/kg
- Antiemetic/adjunctive therapy to analgesia: *Adults*—25 to 100 mg; *children*—1.1 mg/kg

Oral

- Anxiety: *Adults*—50 to 100 mg 4 times/day; *children (>6 years)*—50 to 100 mg/d in divided doses; *children (<6 years)*—50 mg/d in divided doses
- Pruritus: *Adults*—25 mg 3 or 4 times/day; *children (>6 years)*—50 to 100 mg/d in divided doses; *children (<6 years)*—50 mg/d in divided doses
- Pre- and postoperative sedative: *Adults*—50 to 100 mg; *children*—0.6 mg/kg

Continued on the following page

■ CHEMICAL CLASS: BENZODIAZEPINES

Examples

Generic (Trade) Name	Controlled/Pregnancy Categories	Half-life	Indications	Available Forms (mg)
Alprazolam (Xanax)	C-IV/D	6–26 h	Anxiety disorders Anxiety symptoms Panic disorder <i>Unlabeled use:</i> Premenstrual syndrome	Tabs: 0.25, 0.5, 1.0, 2.0 Oral solution: 1 mg/mL
Chlordiazepoxide (Librium)	C-IV/D	5–30 h	Anxiety disorders Anxiety symptoms Acute alcohol withdrawal Preoperative sedation	Caps: 5, 10, 25 Injection: 100 mg/amp
Clonazepam (Klonopin)	C-IV/C	18–50 h	Petit mal, akinetic and myoclonic seizures Panic disorder <i>Unlabeled uses:</i> Acute manic episodes Neuralgias Uncontrolled leg movements during sleep Adjunct therapy in schizophrenia	Tabs: 0.5, 1.0, 2.0

Generic (Trade) Name	Controlled/Pregnancy Categories	Half-life	Indications	Available Forms (mg)
Clorazepate (Tranxene)	C-IV/UK	40–50 h	Anxiety disorders Anxiety symptoms Acute alcohol withdrawal Partial seizures	Tabs/Caps: 3.75, 7.5, 15 Single-dose tabs: 11.25, 22.5
Diazepam (Valium)	C-IV/D	20–80 h	Anxiety disorders Anxiety symptoms Skeletal muscle relaxant Status epilepticus Preoperative sedation <i>Unlabeled use:</i> Panic attacks	Tabs: 2, 5, 10 Oral solution: 5 mg/5 mL, 5 mg/mL Injection: 5 mg/mL
Lorazepam (Ativan)	C-IV/D	10–20 h	Anxiety disorders Anxiety symptoms Insomnia Preoperative sedation <i>Unlabeled uses:</i> Status epilepticus Chemotherapy-induced nausea and vomiting	Tabs: 0.5, 1.0, 2.0 Oral solution: 2 mg/mL Injection: 2 mg/mL, 4 mg/mL
Oxazepam (Serax)	C-IV/D	5–20 h	Anxiety disorders Anxiety symptoms Acute alcohol withdrawal	Tabs: 15 Caps: 10, 15, 30

Continued on the following page

Action

Benzodiazepines are thought to potentiate the effects of gamma-aminobutyric acid, a powerful inhibitory neurotransmitter, thereby producing a calmative effect. The activity may involve the spinal cord, brain stem, cerebellum, limbic system, and cortical areas.

Contraindications and Precautions**Contraindicated in:**

- Hypersensitivity
- Narrow-angle glaucoma
- Preexisting CNS depression
- Pregnancy and lactation
- Shock
- Coma

Use cautiously in:

- Elderly or debilitated patients (reduced dosage recommended)
- Hepatic and renal impairment
- History of drug abuse/dependence
- Depressed/suicidal patients
- Children

Adverse Reactions and Side Effects

- Drowsiness
- Dizziness
- Ataxia
- Dry mouth
- Blurred vision
- Hypotension
- Tolerance
- Physical and psychological dependence

Interactions

- Additive CNS depression with other CNS depressants (e.g., alcohol, other anxiolytics, opioid analgesics, and sedative/hypnotics) and with herbal depressants (e.g., kava, valerian).
- Cimetidine, oral contraceptives, disulfiram, fluoxetine, isoniazid, ketoconazole, metoprolol, propoxyphene, propranolol, and valproic acid may enhance effects of benzodiazepines.

- Benzodiazepines may decrease the efficacy of levodopa.
- Sedative effects of benzodiazepines may be decreased by theophylline.

Route and Dosage**Alprazolam (Xanax)**

- **Anxiety disorders and anxiety symptoms:** PO: 0.25 to 0.5 mg 3 times/day. Maximum daily dose 4 mg in divided doses. In elderly or debilitated patients: 0.25 mg 2 or 3 times/day. Gradually increase if needed and tolerated.
- **Panic disorder:** PO: Initial dose: 0.5 mg 3 times/day. Increase dose at intervals of 3 to 4 days in increments of no more than 1 mg/d.
- **Premenstrual syndrome:** PO: 0.25 mg 3 times/day.

Chlordiazepoxide (Librium)

- **Mild to moderate anxiety:** PO: 5 or 10 mg 3 or 4 times/day.
- **Severe anxiety:** PO: 20 or 25 mg 3 or 4 times/day; IM: 50 to 100 mg initially, then 25 to 50 mg 3 or 4 times/day, if necessary.
- **Preoperative sedation:** PO: 5 to 10 mg 3 or 4 times/day; IM: 50 to 100 mg 1 hour before surgery.
- **Acute alcohol withdrawal:** PO: 50 to 100 mg; repeat as needed up to 300 mg/day. IM: 50 to 100 mg initially; repeat in 2 to 4 hours if necessary.

Clonazepam (Klonopin)

- **Seizures: Adults**—PO: 0.5 mg 3 times/day; may increase by 0.5 to 1 mg every 3rd day. Total daily maintenance dose not to exceed 20 mg; **children (<10 years or 30 kg)**—PO: Initial daily dose 0.01 to 0.03 mg/kg/d (not to exceed 0.05 mg/kg/d) given in two to three equally divided doses; increase by not more than 0.25 to 0.5 mg every 3rd day until therapeutic blood levels are reached (not to exceed 0.2 mg/kg/d). Therapeutic serum concentrations of clonazepam are 20 to 80 ng/mL.
- **Panic disorder:** PO: 0.125 mg 2 times/day. Increase after 3 days toward target dose of 1 mg/d (some patients may require up to 4 mg/d).
- **Acute manic episode:** PO: 0.75 to 6 mg/d.
- **Neuralgia:** PO: 2 to 4 mg/d.

Continued on the following page

- Uncontrolled leg movements during sleep: PO: 0.5 to 2 mg/night.
- Adjunct therapy in schizophrenia: PO: 0.5 to 2 mg/d.

Clorazepate (Tranxene)

- Anxiety disorders/anxiety symptoms: *Adults*—PO: 7.5 to 15 mg 2 to 4 times/day. Adjust gradually to dose within range of 15 to 60 mg/d. May also be given in a single daily dose at bedtime. Initial dose: 15 mg. Adjust dosage within range of 11.25 to 22.5 mg.
- Geriatric or debilitated patients: PO: 3.75 to 15 mg/d.
- Acute alcohol withdrawal: PO: *Day 1*: 30 mg initially, followed by 15 mg 2 to 4 times/day; *Day 2*: 45 to 90 mg in divided doses; *Day 3*: 22.5 to 45 mg in divided doses; *Day 4*: 15 to 30 mg in divided doses. Thereafter, gradually reduce the daily dose to 7.5 to 15 mg.
- Partial seizures: *Adults*—PO: 7.5 mg 3 times/day. Can increase by no more than 7.5 mg/d at weekly intervals (daily dose not to exceed 90 mg); *children (9 to 12 years)*—PO: 7.5 mg 2 times/day initially; may increase by 7.5 mg/wk (not to exceed 60 mg/d).

Diazepam (Valium)

- Antianxiety/adjunct anticonvulsant: *Adults*—PO: 2 to 10 mg 2 to 4 times/day; *children (>6 months)*—PO: 1 to 2.5 mg 3 to 4 times/day.
- Moderate to severe anxiety: *Adults*—IM or IV: 2 to 10 mg. Repeat in 3 to 4 hours if necessary.
- Skeletal muscle relaxant: *Adults*—PO: 2 to 10 mg 3 or 4 times/day or 15 to 30 mg of extended-release form once daily; *geriatric or debilitated patients*—PO: 2 to 2.5 mg 1 to 2 times/day initially. Increase gradually as needed and tolerated; *children (>6 mo.)*—PO: 0.12 to 0.8 mg/kg/d divided into 3 to 4 equal doses.
- Acute alcohol withdrawal: PO: 10 mg 3 to 4 times/day in first 24 hours; decrease to 5 mg 3 or 4 times/day. IM or IV: 10 mg initially, then 5 to 10 mg in 3 to 4 hours as needed.
- Status epilepticus/acute seizure activity: *Adults*—IV (IM route may be used if IV is unavailable): 5 to 10 mg; may repeat every 10 to 15 minutes to a total of 30 mg; may repeat regimen again in 2 to 4 hours; *children (≥5 years)*: IM or IV: 1 mg every 2 to

5 minutes to a maximum of 10 mg; may repeat in 2 to 4 hours if necessary; *children (1 month to 5 years)*—IM or IV: 0.2 to 0.5 mg every 2 to 5 minutes to a maximum of 5 mg.

- Preoperative sedation : *Adults*—IM: 10 mg.

■ CHEMICAL CLASS: PROPANEDIOLS

Example

Generic (Trade) Name	Controlled/Pregnancy Categories	Half-life	Available Forms (mg)
Meprobamate (Miltown)	C-IV/D	6–17 h	Tabs: 200, 400

Indications

- Anxiety disorders
- Temporary relief of anxiety symptoms

Action

- Depress multiple sites in the CNS, including the thalamus and limbic system.
- Appear to inhibit multineuronal spinal reflexes.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity to the drug
- Combination with other CNS depressants
- Children younger than 6 years
- Pregnancy and lactation
- Acute intermittent porphyria

Use cautiously in:

- Elderly or debilitated clients
- Hepatic or renal dysfunction
- Individuals with a history of drug abuse/addiction
- Clients with a history of seizure disorders
- Depressed/suicidal clients

Continued on the following page

Adverse Reactions and Side Effects

- Palpitations, tachycardia
- Drowsiness, dizziness, ataxia
- Nausea, vomiting, diarrhea
- Reduced seizure threshold
- Tolerance
- Physical and psychological dependence

Interactions

- Additive CNS depression with other CNS depressants (e.g., alcohol, other anxiolytics, opioid analgesics, and sedative-hypnotics) and with herbal depressants (e.g., kava, valerian).

Route and Dosage

- Anxiety disorders/anxiety symptoms: *Adults*—PO: 1.2 to 1.6 g/d in 3 to 4 divided doses; maximum daily dose: 2.4 g; *children* (>6 years)—PO: 100 to 200 mg 2 or 3 times/day.

■ CHEMICAL CLASS: AZASPIRODECANEDIONES

Example

Generic Name	Trade Name	Pregnancy Category	Half-life	Available Forms (mg)
Buspirone HCl	BuSpar	B	2–11 h	Tabs: 5, 10, 15, 30

Indications

- Generalized anxiety states

Unlabeled Use

- Symptomatic management of premenstrual syndrome

Actions

- Unknown
- May produce desired effects through interactions with serotonin, dopamine, and other neurotransmitter receptors
- Delayed onset (a lag time of 7 to 10 days between onset of therapy and subsiding of anxiety symptoms)
- Cannot be used on a PRN basis

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity to the drug
- Severe hepatic or renal impairment

Use cautiously in:

- Elderly or debilitated clients
- Pregnancy and lactation
- Children
- Buspirone will not block the withdrawal syndrome in clients with a history of chronic benzodiazepine or other sedative/hypnotic use. Clients should be withdrawn gradually from these medications before beginning therapy with buspirone.

Adverse Reactions and Side Effects

- Drowsiness, dizziness
- Excitement, nervousness
- Fatigue, headache
- Nausea, dry mouth
- Incoordination, numbness

Interactions

- Increased effects of buspirone with erythromycin, itraconazole, and nefazodone.
- Increased serum concentrations of haloperidol when used concomitantly with buspirone.
- Use of buspirone with a monoamine oxidase inhibitor may result in elevated blood pressure.
- Increased risk of hepatic effects when used concomitantly with trazodone.
- Additive effects when used with certain herbal products (e.g., kava, valerian).

Route and Dosage

- Anxiety: *Adults*—PO: 5 mg 3 times/day. Increase by 5 mg/d every 2 to 3 days as needed (not to exceed 60 mg/d). Usual dose is 20 to 30 mg/d in divided doses.

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■ NURSING DIAGNOSES RELATED TO ALL ANTIANXIETY AGENTS

1. Risk for injury related to seizures, panic anxiety, acute agitation from alcohol withdrawal (indications); abrupt withdrawal from the medication after long-term use; effects of medication intoxication or overdose.
2. Anxiety (specify) related to threat to physical integrity or self-concept.
3. Risk for activity intolerance related to medication side effects of sedation, confusion, lethargy.
4. Disturbed sleep pattern related to situational crises, physical condition, severe level of anxiety.
5. Deficient knowledge related to medication regimen.

■ NURSING IMPLICATIONS FOR ANTIANXIETY AGENTS

1. Instruct client not to drive or operate dangerous machinery while taking the medication.
2. Advise client receiving long-term therapy not to stop taking the drug abruptly. Abrupt withdrawal can be life-threatening (with the exception of buspirone). Symptoms include depression, insomnia, increased anxiety, abdominal and muscle cramps, tremors, vomiting, sweating, convulsions, and delirium.
3. Instruct client not to drink alcohol or take other medications that depress the CNS while taking this medication.
4. Assess mood daily. *May aggravate symptoms in depressed persons.* Take necessary precautions for potential suicide.
5. Monitor lying and standing blood pressure and pulse every shift. Instruct client to arise slowly from a lying or sitting position.
6. Withhold drug and notify the physician should paradoxical excitement occur.
7. Have client take frequent sips of water, ice chips, suck on hard candy, or chew sugarless gum to relieve dry mouth.

8. Have client take drug with food or milk to prevent nausea and vomiting.
9. Symptoms of sore throat, fever, malaise, easy bruising, or unusual bleeding should be reported to the physician immediately. They may be indications of blood dyscrasias.
10. Ensure that client taking buspirone (BuSpar) understands there is a lag time of 7 to 10 days between onset of therapy and subsiding of anxiety symptoms. Client should continue to take the medication during this time. (NOTE: This medication is not recommended for PRN administration because of this delayed therapeutic onset. There is no evidence that buspirone creates tolerance or physical dependence as do the CNS depressant anxiolytics.)

■ CLIENT/FAMILY EDUCATION RELATED TO ALL ANTIANXIETY AGENTS

- Do not drive or operate dangerous machinery. Drowsiness and dizziness can occur.
- Do not stop taking the drug abruptly. Can produce serious withdrawal symptoms, such as depression, insomnia, anxiety, abdominal and muscle cramps, tremors, vomiting, sweating, convulsions, and delirium.
- (*With buspirone only*): Be aware of lag time between start of therapy and subsiding of symptoms. Relief is usually evident within 7 to 10 days. Take the medication regularly, as ordered, so that it has sufficient time to take effect.
- Do not consume other CNS depressants (including alcohol).
- Do not take nonprescription medication without approval from physician.
- Rise slowly from sitting or lying position to prevent a sudden drop in blood pressure.
- Report to physician immediately symptoms of sore throat, fever, malaise, easy bruising, unusual bleeding, or motor restlessness.

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- Be aware of risks of taking these drugs during pregnancy. (Congenital malformations have been associated with use during the first trimester.) If pregnancy is suspected or planned, the client should notify the physician of the desirability to discontinue the drug.
- Be aware of possible side effects. Refer to written materials furnished by health-care providers regarding the correct method of self-administration.

- Carry card or piece of paper at all times stating names of medications being taken.

■ INTERNET REFERENCES

- <http://www.mentalhealth.com/fr30.html>
- <http://www.nimh.nih.gov/publicat/medicate.cfm>
- <http://www.fadavis.com/townsend>

■ CHEMICAL CLASS: TRICYCLICS

Examples

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
Amitriptyline (Elavil)	D/31–46 h	Depression <i>Unlabeled uses:</i> Chronic pain (migraine, neuropathy, neuralgia, arthritis, tic douloureux) Dermatological disorders	110–250 (including metabolite)	Tabs: 10, 25, 50, 75, 100, 150 Injection: 10/mL
Amoxapine (Asendin)	C/8 h	Depression Depression with anxiety <i>Unlabeled uses:</i> Chronic pain (see amitriptyline)	200–500	Tabs: 25, 50, 100, 150
Clomipramine (Anafranil)	C/19–37 h	Obsessive-compulsive disorder <i>Unlabeled uses:</i> Premenstrual symptoms	80–100	Caps: 25, 50, 75
Desipramine (Norpramin)	C/12–24 h	Depression <i>Unlabeled uses:</i> Chronic pain (see amitriptyline) Cocaine withdrawal Premenstrual symptoms Dermatological disorders	125–300	Tabs: 10, 25, 50, 75, 100, 15

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
Doxepin (Sinequan)	C/8–24 h	Depression or anxiety Depression or anxiety associated with alcoholism Depression or anxiety associated with organic disease Psychotic depressive disorders with anxiety <i>Unlabeled uses:</i> Chronic pain (see amitriptyline) Peptic ulcer disease Dermatological disorders	100–200 (including metabolite)	Caps: 10, 25, 50, 75, 100, 150 Oral concentrate: 10/mL
Imipramine (Tofranil)	D/11–25 h	Depression Childhood enuresis <i>Unlabeled uses:</i> Chronic pain (see amitriptyline) Cocaine withdrawal	200–350 (including metabolite)	HCl tabs: 10, 25, 50 Pamoate caps: 75, 100, 125, 150
Nortriptyline (Aventyl; Pamelor)	D/18–44 h	Depression <i>Unlabeled uses:</i> Chronic pain (see amitriptyline) Premenstrual symptoms Dermatological disorders	50–150	Caps: 10, 25, 50, 75 Oral solution: 10/5 mL

Continued on the following page

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
Protriptyline (Vivactil)	C/67–89 h	Depression <i>Unlabeled uses:</i> Chronic pain (see amitriptyline)	100–200	Tabs: 5, 10
Trimipramine (Surmontil)	C/7–30 h	Depression <i>Unlabeled uses:</i> Peptic ulcer disease	180 (includes active metabolite)	Caps: 25, 50, 100

Action

- Inhibit reuptake of norepinephrine or serotonin at the presynaptic neuron.

Contraindications and Precautions:

Contraindicated in:

- Hypersensitivity to tricyclics
- Concomitant use with monoamine oxidase (MAO) inhibitors
- Acute recovery period following myocardial infarction
- Narrow angle glaucoma
- Pregnancy and lactation (safety not established)

Use cautiously in:

- Patients with history of seizures
- Urinary retention
- Benign prostatic hypertrophy
- Cardiovascular disorders
- Hepatic or renal insufficiency
- Psychotic patients
- Elderly or debilitated patients

Adverse Reactions and Side Effects

- Drowsiness
- Dry mouth

- Blurred vision
- Orthostatic hypotension
- Tachycardia
- Constipation
- Urinary retention
- Blood dyscrasias
- Nausea and vomiting
- Photosensitivity

Interactions

- Increased effects of tricyclic antidepressants with **bupropion, cimetidine, haloperidol, selective serotonin reuptake inhibitors, and valproic acid.**
- Decreased effects of tricyclic antidepressants with **carbamazepine, barbiturates, and rifamycins.**
- Hyperpyretic crisis, convulsions, and death can occur with **MAO inhibitors.**
- Coadministration with **clonidine** may produce hypertensive crisis.
- Decreased effects of **levodopa** and **guanethidine** with tricyclic antidepressants.
- Potentiation of pressor response with direct-acting **sympathomimetics.**
- Increased anticoagulation effects with **dicumarol.**

Route and Dosage

Amitriptyline (Elavil)

- **Depression:** PO: 75 mg/d in divided doses. May gradually increase to 150 mg/d.
- Hospitalized patients may require up to 300 mg/d. **Adolescent and elderly patients**—10 mg 3 times/day and 20 mg at bedtime. IM: **Adults** 20 to 30 mg 4 times/day.
- **Chronic pain:** PO: 75 to 300 mg/d.
- **Dermatological disorders:** PO: 10 to 50 mg/d.

Amoxapine (Asendin)

- **Depression/depression with anxiety:** PO: 50 mg 2 or 3 times/day. May increase to 100 mg 2 or 3 times/day by end of 1st

Continued on the following page

week. **Elderly patients**—25 mg 2 or 3 times/day. May increase to 50 mg 2 or 3 times/day by end of 1st week.

- **Chronic pain:** PO: 100 to 300 mg/d.

Clomipramine (Anafranil)

- **Obsessive-compulsive disorder:** PO: **Adults**—25 mg/d. Gradually increase to 100 mg during first 2 weeks, given in divided doses. May increase gradually over several weeks to maximum of 250 mg/d. **Children and adolescents**—25 mg/d. Gradually increase during first 2 weeks to daily dose of 3 mg/kg or 100 mg, whichever is smaller. Maximum daily dose: 200 mg.

Desipramine (Norpramin)

- **Depression:** PO: 100 to 200 mg/d in divided doses or as a single daily dose. May increase to maximum dose of 300 mg/d. **Elderly and adolescents**—25 to 100 mg/d in divided doses or as a single daily dose. Maximum dose: 150 mg/d.
- **Chronic pain:** PO: 75 to 300 mg/d.
- **Cocaine withdrawal:** PO: 50 to 200 mg/d.
- **Premenstrual symptoms:** PO: 100 to 150 mg/d for depression.
- **Dermatological disorders:** PO: 100 to 150 mg/d.

Doxepin (Sinequan)

- **Depression:** PO: (Mild to moderate illness) 75 mg/d. Increase to maximum dose of 150 mg/d. (Mild symptoms associated with organic illness): 25 to 50 mg/d. (Severe symptoms): 50 mg 3 times/day; gradually increase to 300 mg/d.
- **Chronic pain:** PO: 30 to 300 mg/d.
- **Peptic ulcer disease:** PO: 50 to 150 mg/d.
- **Dermatological disorders:** PO: 10 to 30 mg/d.

Imipramine (Tofranil)

- **Depression:** PO: 75 mg/d. Increase to maximum of 200 mg/d. Hospitalized patients may require up to 300 mg/d. **Adolescent and geriatric patients**—30 to 40 mg/d. Increase to maximum of 100 mg/d.
- **Childhood enuresis (children ≥ 6 years of age):** PO: 25 mg/d 1 hour before bedtime. May increase after 1 week to 50 mg/night if < 12 years of age; up to 75 mg/night if > 12 years of age. Maximum dose 2.5 mg/kg/d.
- **Chronic pain:** PO: 75 to 300 mg/d.
- **Cocaine withdrawal:** PO: 150 to 300 mg/d.

Nortriptyline (Aventyl; Pamelor)

- **Depression:** PO: 25 mg 3 or 4 times/day. The total daily dose may be given at bedtime. **Elderly and adolescent patients**—30 to 50 mg daily in divided doses or total daily dose may be given once/day.
- **Chronic pain:** PO: 50 to 150 mg/d.
- **Premenstrual symptoms:** PO: 50 to 125 mg/d.
- **Dermatological disorders:** PO: 20 to 75 mg/d.

Protriptyline (Vivactil)

- **Depression:** PO: 15 to 40 mg/d divided into 3 or 4 doses. Maximum daily dose: 60 mg. **Adolescent and elderly patients**—Initially, 50 mg/d, with gradual increments up to 100 mg/d.
- **Chronic pain:** PO: 15 to 60 mg/d.

Trimipramine (Surmontil)

- **Depression:** PO: 75 mg/d. Increase gradually to 150 to 200 mg/d. Hospitalized patients may require up to 300 mg/d. **Adolescent and elderly patients**—Initially, 50 mg/d, with gradual increments up to 100 mg/d.
- **Peptic ulcer disease:** PO: 25 to 50 mg/d.

■ CHEMICAL CLASS: HETEROCYCLICS

Examples

Generic (Trade) Name	Preg-nancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
Bupropion (Wellbutrin; Zyban)	B/8–24 h	Depression Smoking cessation (Zyban) <i>Unlabeled use:</i> Attention deficit hyperactivity disorder (ADHD)	Not well established	Tabs: 75, 100 Tabs (SR): 100, 150

Continued on the following page

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
Maprotiline (Ludiomil)	B/8–24 h B/21–25 h	Depression Depression with anxiety	200–300 (including metabolite)	Tab: 25, 50, 75
Mirtazapine (Remeron)	C/20–40 h	Depression	Not well established	Tab: 15, 30
Trazodone (Desyrel)	C/4–9 h	Depression <i>Unlabeled uses:</i> Aggressive behavior Alcohol dependence Panic disorder or agoraphobia with panic attacks Insomnia	800–1600	Tab: 50, 100, 150, 300

Action

Maprotiline and mirtazapine enhance central noradrenergic and serotonergic activity. Trazodone selectively inhibits serotonin uptake at synapses in the brain, thereby potentiating its effects. Bupropion blocks the uptake of serotonin and norepinephrine and inhibits the reuptake of dopamine.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity to the drug
- Concomitant use with, or within 2 weeks of use of, MAO inhibitors
- Known or suspected seizure disorder (maprotiline; bupropion)
- Acute phase of myocardial infarction
- Bulimia or anorexia nervosa (bupropion)

Use cautiously in:

- Urinary retention
- Hepatic, renal, or cardiovascular disease
- Suicidal patients
- Pregnancy and lactation (safety not established)
- Elderly and debilitated patients

Adverse Reactions and Side Effects

- Dry mouth
- Sedation; dizziness
- Tachycardia
- Headache
- Nausea/vomiting
- Priapism (trazodone)
- Seizures (maprotiline; bupropion)
- Constipation

Interactions

- Additive effects of **CNS depressants** when taken with mirtazapine or trazodone.
- Increased risk of seizures with concurrent use of maprotiline and **phenothiazines** and with bupropion and **other drugs that lower seizure threshold**.
- Prothrombin time is altered with concurrent use of **warfarin** and trazodone.
- Serotonin syndrome may occur with concurrent use of trazodone and selective serotonin reuptake inhibitors (**SSRIs**) or **venlafaxine**.
- Acute toxicity of bupropion is enhanced with concurrent use of **monoamine oxidase inhibitors (MAOIs)**.
- May cause hypertension, seizures, and death when used with **MAOIs**; should not be taken within 14 days of MAOI therapy.

Route and Dosage

Bupropion (Wellbutrin; Zyban)

- **Depression:** PO: **Adults**—100 mg 2 times/day. May increase to 100 mg given 3 times/day. No single dose of bupropion should exceed 150 mg. To prevent the risk of seizures, administer 4 to 6

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hours between doses. Sustained release tabs may be given as a single 150-mg dose in the morning. May increase to twice a day (total 300 mg), with 8 hours between doses.

- **Smoking cessation (Zyban):** PO: 150 mg (SR tabs) twice daily, with an interval of 8 hours between doses. Continue treatment for 7 to 12 weeks. Some patients may need treatment for as long as 6 months.
- **ADHD:** PO: 3 mg/kg/d.

Maprotiline (Ludiomil)

- **Depression/depression with anxiety:** PO: *Adults*—Initial dose: 75 mg/d. After 2 weeks, may increase gradually in 25 mg increments. Maximum daily dose: 150 to 225 mg. *Elderly patients*—50 to 75 mg/d.

Mirtazapine (Remeron)

- **Depression:** PO: Initial dose: 15 mg/d administered in a single dose, preferably in the evening prior to sleep. May increase dose at intervals of 1 to 2 weeks up to a maximum dose of 45 mg/d. **WARNING:** At least 14 days should elapse between discontinuation of an MAOI and initiation of therapy with mirtazapine. In addition, allow at least 14 days after stopping mirtazapine before starting an MAOI.

Trazodone (Desyrel)

- **Depression:** PO: Initial dose: 150 mg/d in divided doses. May increase by 50 mg/d every 3 to 4 days to a maximum dose of 400 mg/d in divided doses. May need to administer a major portion of the dose at bedtime due to sedative effect.
- **Aggressive behavior:** PO: trazodone 50 mg twice daily and tryptophan 500 mg twice daily have been successful in treatment of aggressive behavior.
- **Alcohol dependence:** PO: 50 to 100 mg/d of trazodone have resulted in decreased cravings for alcohol, depression, and anxiety in patients with alcoholism.
- **Panic disorder or agoraphobia with panic attacks:** PO: 300 mg/d.
- **Insomnia:** PO: 25 to 75 mg/d at bedtime.

■ CHEMICAL CLASS: SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIs)

Examples

Generic (Trade) Name	Preg-nancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
Citalopram (Celexa)	C/ ~35 h	Treatment of depression <i>Unlabeled uses:</i> Alcoholism treatment Panic disorder Premenstrual dysphoria Social phobia Trichotillomania	Not well established	Tabs: 10, 20, 40 Oral solution: 10/5 mL
Escitalopram (Lexapro)	C/27–32 h	Major depressive disorder	Not well established	Tabs: 5, 10, 20
Fluoxetine (Prozac; Prozac Weekly; Sarafem)	C/1–16 days (including metabolite)	Treatment of depression Obsessive-compulsive disorder Bulimia nervosa Premenstrual disorder <i>Unlabeled uses:</i> Alcoholism Anorexia nervosa ADHD Bipolar II disorder Borderline personality disorder Narcolepsy Kleptomania	Not well established	Caps: 10, 20, 40 Conc: 20 mg/5 mL Caps, delayed release (weekly dosage): 90

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Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
		Migraine/tension headaches Post-traumatic stress disorder (PTSD) Schizophrenia Trichotillomania Social phobia Chronic rheumatoid pain Panic disorder Peripheral neuropathy		
Fluvoxamine (Luvox)	C/13.6–15.6 h	Obsessive-compulsive disorder	Not well established	Tabs: 50, 100
Paroxetine (Paxil)	C/21 h	Major depressive disorder Panic disorder Obsessive-compulsive disorder Social anxiety disorder Generalized anxiety disorder PTSD	Not well established	Tabs and Caps: 10, 20, 30, 40 Oral Suspension: 10/5 mL Tabs (CR): 12.5, 25, 37.5
Sertraline (Zoloft)	26–104 h (including metabolite)	Major depressive disorder Obsessive-compulsive disorder Panic disorder PTSD Premenstrual dysphoria	Not well established	Tabs: 25, 50, 100

Action

Selectively inhibit the central nervous system neuronal uptake of serotonin (5-HT), thereby potentiating its activity.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity to SSRIs
- Concomitant use with, or within 14 days' use of, MAO inhibitors
- **Fluvoxamine:** concomitant use with cisapride

Use cautiously in:

- Patients with history of seizures
- Underweight or anorexic patients
- Hepatic or renal insufficiency
- Elderly or debilitated patients
- Suicidal patients
- Pregnancy and lactation

Adverse Reactions and Side Effects

- Headache
- Insomnia
- Nausea
- Diarrhea
- Constipation
- Sexual dysfunction
- Somnolence
- Dry mouth
- Serotonin syndrome (if taken concurrently with other medications that increase levels of serotonin, e.g., MAOIs, tryptophan, amphetamines, other antidepressants, buspirone, lithium, or dopamine agonists). Symptoms of serotonin syndrome include diarrhea, cramping, tachycardia, labile blood pressure, diaphoresis, fever, tremor, shivering, restlessness, confusion, disorientation, mania, myoclonus, hyperreflexia, ataxia, seizures, cardiovascular shock, and death.

Interactions

- Toxic, sometimes fatal, reactions have occurred with concomitant use of MAOIs.

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- Increased effects of SSRIs with **cimetidine**, **L-tryptophan**, and **lithium**.
- Concomitant use of SSRIs may increase effects of **hydantoins**, **tricyclic antidepressants**, **benzodiazepines**, **beta blockers**, **carbamazepine**, **clozapine**, **haloperidol**, **phenothiazines**, **St. John's wort**, **sumatriptan**, **sympathomimetics**, **tacrine**, **theophylline**, and **warfarin**.
- Concomitant use of SSRIs may decrease effects of **buspirone** and **digoxin**.

Route and Dosage

Citalopram (Celexa)

- **Depression:** PO: Initial dose: 20 mg/d as a single daily dose. May increase in increments of 20 mg at intervals of no less than 1 week. Recommended maximum dose: 40 mg/d. **Elderly clients**—20 mg/d.
- **Alcoholism treatment:** PO: 20 to 30 mg/d.
- **Panic disorder:** PO: 20 to 30 mg/d.

Escitalopram (Lexapro)

- **Depression:** PO: Initial dose: 10 mg/d as a single daily dose. May increase to 20 mg/d after 1 week. **Elderly clients**—PO: 10 mg/d.

Fluoxetine (Prozac; Sarafem)

- **Depression and obsessive-compulsive disorder:** PO: Initial dose: 20 mg/d in the morning. May increase dose after several weeks if clinical improvement is not observed. Doses >20 mg may be administered on a once-daily (morning) or twice-daily (morning and noon) schedule. Maximum dose: 80 mg/d.
- **Bulimia nervosa:** PO: 60 mg/d administered in the morning. May need to titrate up to this target dose in some clients.
- **Premenstrual dysphoric disorder (Sarafem):** PO: Initial dose: 20 mg/d. Maximum: 80 mg/d.
- **Alcoholism:** PO: 40 to 80 mg/d.
- **Anorexia nervosa:** PO: 20 to 80 mg/d.
- **ADHD:** PO: 20 to 60 mg/d.
- **Bipolar II disorder:** PO: 20 to 80 mg/d.
- **Borderline personality disorder:** PO: 5 to 80 mg/d.
- **Narcolepsy:** PO: 20 to 40 mg/d.
- **Kleptomania:** PO: 60 to 80 mg/d.

- **Migraine/tension headaches:** PO: 20 mg every other day to 40 mg/d.
- **PTSD:** PO: 10 to 80 mg/d.
- **Schizophrenia:** PO: 20 to 60 mg/d.
- **Trichotillomania:** PO: 20 to 80 mg/d.
- **Social phobia:** PO: 10 to 60 mg/d.
- **Chronic rheumatoid pain:** PO: 20 mg/d.
- **Panic disorder:** PO: 10 to 70 mg/d.
- **Diabetic peripheral neuropathy:** PO: 5 to 40 mg/d.

Fluvoxamine (Luvox)

- **Obsessive-compulsive disorder:** PO: **Adults**—Initial dose: 50 mg at bedtime. May increase dose in 50-mg increments every 4 to 7 days. Maximum dose: 300 mg. Administer daily doses >100 mg in 2 divided doses. If unequal, give larger dose at bedtime. **Children 8 to 17 years**—Initial dose 25 mg single dose at bedtime. May increase the dose in 25-mg increments every 4 to 7 days to a maximum dose of 200 mg/d for children up to 11 years of age. Maximum dose for adolescents: 300 mg/d. Divide daily doses >50 mg into 2 doses.

Paroxetine (Paxil)

- **Depression:** PO (immediate release): Initial dose: 20 mg/d in the morning. May increase dose in 10-mg increments at intervals of at least 1 week to a maximum of 50 mg/d. (controlled release): Initial dose: 25 mg/d in the morning. May increase dose in 12.5-mg increments at intervals of at least 1 week to a maximum of 62.5 mg/d.
- **Panic disorder:** PO (immediate release): Initial dose: 10 mg/d in the morning. May increase dose in 10-mg increments at intervals of at least 1 week to a target dose of 40 mg/d. Maximum dose: 60 mg/d. (controlled release): Initial dose: 12.5 mg/d in the morning. May increase dose in 12.5-mg/d increments at intervals of at least 1 week to a maximum dose of 75 mg/d.
- **Obsessive-compulsive disorder:** PO: (immediate release): 20 mg/d in the morning. May increase dose in 10-mg/d increments at intervals of at least 1 week. Recommended dose: 40 mg/d. Maximum dose: 60 mg/d.

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- **Social anxiety disorder:** PO: (immediate release): 20 mg/d in the morning. Usual range is 20 to 60 mg/d.
- **Generalized anxiety disorder and PTSD:** PO: (immediate release): 20 mg/d in the morning. Usual range is 20 to 50 mg/d. Change doses in increments of 10 mg/d at intervals of at least 1 week.

Sertraline (Zoloft)

- **Depression and obsessive-compulsive disorder:** PO: 50 mg/d (either morning or evening). May increase dose at 1-week intervals to a maximum of 200 mg/d.
- **Panic disorder and PTSD:** PO: Initial dose: 25 mg/d. After 1 week, increase dose to 50 mg/d. For patients not responding, may increase dose at 1 week intervals to a maximum of 200 mg/d.
- **Premenstrual dysphoric disorder:** PO: 50 mg/d given on each day of the menstrual cycle or only during each day of the luteal phase of the menstrual cycle. For patients not responding, may increase dose in 50-mg increments per menstrual cycle up to 150 mg/d when dosing throughout the cycle or 100 mg/d when dosing only during the luteal phase.

■ CHEMICAL CLASS: NONSELECTIVE REUPTAKE INHIBITORS

Examples

Generic (Trade) Name	Preg-nancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
Nefazodone (Serzone)	C/2–4	Treatment of depression	Not well established	Tabs: 50, 100, 150, 200, 250
Venlafaxine (Effexor)	C/5–11 (includes metabo-lite)	Treatment of depression Generalized anxiety disorder (extended release)	Not well established	Tabs: 25, 37.5, 50, 75, 100 Caps XR: 37.5, 75, 150

Action

- Inhibit neuronal reuptake of serotonin and norepinephrine.
- Venlafaxine is also a weak inhibitor of dopamine reuptake.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity to the drug
- Children and pregnancy (safety not established)
- Concomitant (or within 14 days) use with MAOIs
- **Nefazodone:** concomitant use with cisapride, pimozone, carbamazepine, or triazolam

Use cautiously in:

- Hepatic and renal insufficiency
- Elderly and debilitated patients
- Patients with history of drug abuse
- Suicidal patients
- Patients with history of or existing cardiovascular disease
- Patients with history of mania
- Patients with history of seizures

Adverse Reactions and Side Effects

- Headache
- Dry mouth
- Nausea
- Somnolence
- Dizziness
- Insomnia
- Asthenia
- Constipation

Interactions

- Concomitant use with **MAOIs** results in serious, sometimes fatal, effects resembling neuroleptic malignant syndrome.
- Increased sedative-hypnotic effects when used concomitantly with **St. John's wort**.
- Increased effects of **haloperidol** when used concomitantly with these drugs.
- Increased risk of serotonin syndrome when used concomitantly with **sumatriptan, sibutramine, or trazodone**.

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- Increased effects of **benzodiazepines, buspirone, carbamazepine, digoxin,** and **HMG-CoA reductase inhibitors** when taken with nefazodone.

Route and Dosage

Nefazodone (Serzone)

- **Depression:** PO: Initial dose: 200 mg/d in 2 divided doses. May increase dose in increments of 100 to 200 mg/d at intervals of at least 1 week. Usual effective dose range: 300 to 600 mg/d. **Elderly and debilitated patients**—100 mg/d in 2 divided doses.

Venlafaxine (Effexor)

- **Depression:** PO: Initial dose (with immediate-release tabs): 75 mg/d in 2 or 3 divided doses, taken with food. May increase in increments up to 75 mg/d at intervals of at least 4 days. Maximum dose: 225 mg/d.
- **Depression and generalized anxiety disorder:** PO: Initial dose (with extended-release caps): 75 mg/d with food given in the morning or in the evening at the same time each day. May increase dose in increments of up to 75 mg/d at intervals of at least 4 days to a maximum of 225 mg/d.

■ CHEMICAL CLASS: SELECTIVE NOREPINEPHRINE REUPTAKE INHIBITOR

NOTE: This drug is not classified as an antidepressant. Its therapeutic classification is as an agent for ADHD (other agents for ADHD are discussed in Chapter 30). Atomoxetine is included in this chapter because of its particular chemical classification.

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
Atomoxetine (Strattera)	C/5.2 h	Treatment of ADHD	Not well established	Caps: 10, 18, 25, 40, 60

Action

The exact mechanism by which atomoxetine produces its therapeutic effects in ADHD is unknown, but it is thought to be related to selective inhibition of the presynaptic norepinephrine transporter.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Concurrent use of an MAOI or use of an MAOI within 2 weeks
- Narrow angle glaucoma

Use cautiously in:

- Clients with hypertension or tachycardia
- Clients with cardiovascular or cerebrovascular disease
- Pregnancy and lactation
- Elderly and debilitated clients
- Hepatic and renal insufficiency

Adverse Reactions and Side Effects

- Headache
- Nausea and vomiting
- Upper abdominal pain
- Dry mouth
- Decreased appetite; weight loss
- Constipation
- Insomnia
- Sexual dysfunction
- Urinary hesitancy and/or retention
- Increased blood pressure and heart rate
- Irritability

Interactions

- Concomitant use with **albuterol** increases cardiovascular effects.
- Use with **MAOIs** increases risk of neuroleptic malignant syndrome. Separate doses of MAOIs and atomoxetine by 14 days.
- **Pressor agents** potentiate effects on blood pressure.
- Coadministration with strong CYP 2D6 inhibitors (e.g., **paroxetine, fluoxetine, quinidine**) may increase atomoxetine plasma concentration.

Continued on the following page

Route and Dosage

Atomoxetine (Strattera)

- **ADHD: Adults, adolescents, and children weighing more than 70 kg (154 lb):** PO: Initial dose: 40 mg/d. Increase after a minimum of 3 days to a target total daily dose of 80 mg, as a single dose in the morning or 2 evenly divided doses in the morning and late afternoon or early evening. After 2 to 4 weeks, total dose may be increased to a maximum of 100 mg, if needed.
- **ADHD: Children weighing 70 kg (154 lb) or less:** PO: Initial dose: 0.5 mg/kg/d. Increase after a minimum of 3 days to a target total daily dose of about 1.2 mg/kg taken either as a single dose in the morning or 2 evenly divided doses in the morning and late afternoon or early evening. Maximum daily dose: 1.4 mg/kg or 100 mg daily, whichever is less.
- **Adjusted dosing: hepatic impairment:** In clients with moderate hepatic impairment, reduce to 50% of normal dose. In clients with severe hepatic impairment, reduce to 25% of normal dose.
- **Adjusted dosing: Coadministration with strong CYP 2D6 inhibitors: Adults, adolescents, and children over 70 kg body weight**—Initiate dose at 40 mg/d and increase to the usual target dose of 80 mg/d only if symptoms fail to improve after 4 weeks and the initial dose is well tolerated. **Children and adolescents up to 70 kg body weight**—Initiate dose at 0.5 mg/kg/d and increase to the usual target dose of 1.2 mg/kg/d only if symptoms fail to improve after 4 weeks and the initial dose is well tolerated.

■ CHEMICAL CLASS: MONOAMINE OXIDASE INHIBITORS (MAOIs)

Examples

Generic (Trade) Name	Preg-nancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
Isocar-boxazid (Marplan)	C/Not es-tablished	Treatment of depression	Not well estab-lished	Tab: 10

Generic (Trade) Name	Preg-nancy Category/ Half-life	Indications	Therapeutic Plasma Level Range (ng/mL)	Available Forms (mg)
Phenelzine (Nardil)	C/Not es-tablished	Treatment of depression	Not well estab-lished	Tab: 15
Tranlycyp-romine (Parnate)	C/2.4–2.8 h	Treatment of depression	Not well estab-lished	Tab: 10

Action

Inhibition of the enzyme monoamine oxidase, resulting in an increase in the concentration of endogenous epinephrine, norepinephrine, and serotonin in storage sites throughout the nervous system.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Pheochromocytoma
- Hepatic or renal insufficiency
- History of or existing cardiovascular disease
- Hypertension
- History of severe or frequent headaches
- Concomitant use with guanethidine
- Concomitant use with other antidepressants (e.g., tricyclics, SSRIs, heterocyclics, venlafaxine, nefazodone, or other MAOIs)
- Children younger than 16 years of age
- Pregnancy and lactation (safety not established)

Use cautiously in:

- Patients with a history of seizures
- Diabetes mellitus
- Suicidal patients
- Schizophrenia
- Agitated or hypomanic patients
- History of angina pectoris or hyperthyroidism

Continued on the following page

Adverse Reactions and Side Effects

- Dizziness
- Headache
- Orthostatic hypotension
- Constipation
- Nausea
- Disturbances in cardiac rate and rhythm
- Blurred vision
- Dry mouth
- Weight gain
- Hypomania

Interactions

- Serious, potentially fatal adverse reactions may occur with concurrent use of other **antidepressants**, **carbamazepine**, **cyclobenzaprine**, **maprotiline**, **furazolidone**, **procarbazine**, or **selegiline**. Avoid using within 2 weeks of each other (5 weeks after therapy with fluoxetine).
- Hypertensive crisis may occur with **amphetamines**, **methyl dopa**, **levodopa**, **dopamine**, **epinephrine**, **norepinephrine**, **guanethidine**, **guanadrel**, **reserpine**, or **vasoconstrictors**.
- Hypertension or hypotension, coma, convulsions, and death may occur with **opioids** (avoid use of **meperidine** within 14 to 21 days of MAOI therapy).
- Concurrent use with **dextromethorphan** or **tryptophan** may produce hypertension, excitation, and hyperpyrexia.
- Hypertension may occur with concurrent use of **bupirone**; avoid using within 10 days of each other.
- Excess central nervous system stimulation and hypertension may occur with **methylphenidate**.
- Additive hypotension may occur with **antihypertensives** or **spinal anesthesia**.
- Additive hypoglycemia may occur with **insulins** or **oral hypoglycemic agents**.
- **Doxapram** may increase pressor response.
- Serotonin syndrome may occur with concomitant use of **St. John's wort**.

- Hypertensive crisis may occur with ingestion of foods or other products containing high concentrations of **tyramine** (see Nursing Implications).
- Consumption of foods or beverages with high **caffeine** content increases the risk of hypertension and arrhythmias.

Route and Dosage

Isocarboxazid (Marplan)

- **Depression:** PO: Initial dose: 10 mg twice daily. May increase dose by 10 mg every 2 to 4 days to 40 mg by end of 1st week. If needed, may continue to increase dose by increments of up to 20 mg/wk. Maximum dose: 60 mg/d divided into 2 to 4 doses. Gradually reduce to smallest effective dose.

Phenelzine (Nardil)

- **Depression:** PO: Initial dose: 15 mg 3 times/day. Increase to 60 to 90 mg/d in divided doses until therapeutic response is achieved. Then gradually reduce to smallest effective dose (15 mg/d or every other day).

Tranylcypromine (Parnate)

- **Depression:** PO: 30 mg/d in 2 divided doses. After 2 weeks, may increase by 10 mg/d; at 1- to 3-week intervals, up to 60 mg/d.

■ NURSING DIAGNOSES RELATED TO ALL ANTIDEPRESSANTS

1. Risk for suicide related to depressed mood
2. Risk for injury related to side effects of sedation, lowered seizure threshold, orthostatic hypotension, priapism, photosensitivity, arrhythmias, and hypertensive crisis
3. Social isolation related to depressed mood
4. Risk for constipation related to side effects of the medication

■ NURSING IMPLICATIONS FOR ANTIDEPRESSANTS

The plan of care should include monitoring for the following side effects from antidepressant medications. Nursing implications are designated by an asterisk (*).

Continued on the following page

1. May occur with all chemical classes:

a. Dry mouth

- *Offer the client sugarless candy, ice, frequent sips of water.
- *Strict oral hygiene is very important.

b. Sedation

- *Request an order from the physician for the drug to be given at bedtime.
- *Request that the physician decrease the dose or perhaps order a less sedating drug.
- *Instruct the client not to drive or use dangerous equipment while experiencing sedation.

c. Nausea

- *Medication may be taken with food to minimize gastrointestinal distress.

d. Discontinuation syndrome

- *All classes of antidepressants have varying potentials to cause discontinuation syndromes. Abrupt withdrawal following long-term therapy with SSRIs and venlafaxine may result in dizziness, lethargy, headache, and nausea. Fluoxetine is less likely to result in withdrawal symptoms because of its long half-life. Abrupt withdrawal from tricyclics may produce hypomania, akathisia, cardiac arrhythmias, and panic attacks. The discontinuation syndrome associated with MAOIs includes confusion, hypomania, and worsening of depressive symptoms. All antidepressant medication should be tapered gradually to prevent withdrawal symptoms (Haddad, 2001).
- *Atomoxetine (Strattera) is not associated with a discontinuation syndrome and need not be tapered.

2. Most commonly occur with tricyclics or heterocyclics:

a. Blurred vision

- *Offer reassurance that this symptom should subside after a few weeks.
- *Instruct client not to drive until vision is clear.
- *Clear small items from routine pathway to prevent falls.

b. Constipation

- *Order foods high in fiber; increase fluid intake if not contraindicated; and encourage client to increase physical exercise, if possible.

c. Urinary retention

- *Instruct client to report hesitancy or inability to urinate.
- *Monitor intake and output.

- *Various methods to stimulate urination may be tried, such as running water in the bathroom or pouring water over the perineal area.

d. Orthostatic hypotension

- *Instruct client to rise slowly from a lying or sitting position.
- *Monitor blood pressure (lying and standing) frequently, and document and report significant changes.
- *Avoid long hot showers or baths.

e. Reduction of seizure threshold

- *Clients with history of seizures should be observed closely.
- *Institute seizure precautions as specified in hospital procedure manual.
- *Bupropion (Wellbutrin) should be administered in doses of no more than 150 mg and should be given at least 4 hours apart. Bupropion has been associated with a relatively high incidence of seizure activity in anorectic and cachectic clients.

f. Tachycardia; arrhythmias

- *Carefully monitor blood pressure and pulse rate and rhythm, and report any significant change to the physician.

g. Photosensitivity

- *Ensure that client wears protective sunscreens, clothing, and sunglasses while outdoors.

3. Most commonly occur with SSRIs:

a. Insomnia; agitation

- *Take dose early in the day.
- *Avoid caffeinated food and drinks.
- *Teach relaxation techniques for use before bedtime.

b. Headache

- *Administer analgesics as prescribed.
- *May need to switch to another SSRI or to another class of antidepressants.

c. Anorexia; weight loss

- *Ensure that client is provided with caloric intake sufficient to maintain desired weight.
- *Caution should be taken in prescribing these drugs for anorectic clients.
- *Weigh client daily or every other day, at the same time and on the same scale if possible.

Continued on the following page

d. **Sexual dysfunction**

***Males**—May report abnormal ejaculation or impotence.

***Females**—May experience delay or loss of orgasm.

*If side effect becomes intolerable, a switch to another antidepressant may be necessary.

e. **Serotonin syndrome**

*Discontinue offending agent immediately.

*The physician will prescribe medications to block serotonin receptors, relieve hyperthermia and muscle rigidity, and prevent seizures. Artificial ventilation may be required.

*Symptomatic measures, such as cooling blankets to decrease fever, may be instituted.

4. **Most commonly occur with MAOIs:**

a. **Hypertensive crisis**

*This occurs if the individual consumes foods or other substances containing tyramine while receiving MAOI therapy. Foods that should be avoided include aged cheeses, raisins, fava beans, red wines, smoked and processed meats, caviar, pickled herring, soy sauce, monosodium glutamate (MSG), beer, chocolate, yogurt, and bananas. Drugs that should be avoided include other antidepressants (tricyclics, heterocyclics, SSRIs, NSRIs), sympathomimetics (including over-the-counter cough and cold preparations), stimulants (including over-the-counter diet drugs), antihypertensives, meperidine and other opioid narcotics, and antiparkinsonian agents such as levodopa.

*Symptoms of hypertensive crisis include severe occipital headache, palpitations, nausea and vomiting, nuchal rigidity, fever, sweating, marked increase in blood pressure, chest pain, and coma.

*Treatment of hypertensive crisis: Discontinue drug immediately; monitor vital signs; administer short-acting antihypertensive medication as ordered by physician; use external cooling measures to control hyperpyrexia.

5. **Miscellaneous side effects:**

a. **With trazodone (Desyrel): Priapism**

*This is a rare side effect, but it has occurred in some men taking trazodone.

*If the client complains of prolonged or inappropriate penile erection, withhold medication dose, and notify the physician immediately.

*This can become very problematic, requiring surgical intervention and, if not treated successfully, can result in impotence.

■ **CLIENT/FAMILY EDUCATION RELATED TO ALL ANTIDEPRESSANTS**

- Continue to take the medication even though the symptoms have not subsided. The therapeutic effect may not be seen for as long as 4 weeks. If after this time no improvement is noted, the physician may prescribe a different medication.
- Use caution when driving or operating dangerous machinery. Drowsiness and dizziness can occur. If these side effects become persistent or interfere with activities of daily living, report them to the physician. Dosage adjustment may be necessary.
- Do not stop taking the drug abruptly. Doing so might produce uncomfortable and/or dangerous withdrawal symptoms.
- Use sunscreens, and wear protective clothing when spending time outdoors. The skin may be sensitive to sunburn.
- Report occurrence of any of the following symptoms to the physician immediately: sore throat, fever, malaise, unusual bleeding, easy bruising, persistent nausea and vomiting, severe headache, rapid heart rate, difficulty urinating, anorexia or weight loss, seizure activity, stiff or sore neck, and chest pain.
- Rise slowly from a sitting or lying position to prevent a sudden drop in blood pressure.
- Take frequent sips of water, chew sugarless gum, or suck on hard candy if dry mouth is a problem. Good oral care (frequent brushing, flossing) is very important.
- Do not consume the following foods or medications while taking MAOIs: aged cheese, wine (especially chianti), beer, chocolate, colas, coffee, tea, sour cream, smoked and processed meats, chicken or beef liver, soy sauce, pickled herring, yogurt, raisins, caviar, broad beans, cold remedies, diet pills. To do so could cause a life-threatening hypertensive crisis.
- Avoid smoking while receiving tricyclic therapy. Smoking increases the metabolism of tricyclics, requiring an adjustment in dosage to achieve the therapeutic effect.
- Do not drink alcohol while taking antidepressant therapy. Antidepressants potentiate the effects of each other.

Continued on the following page

- Do not consume other medications (including over-the-counter medications) without the physician's approval while receiving antidepressant therapy. Many medications contain substances that, in combination with antidepressant medication, could precipitate a life-threatening hypertensive crisis.
- Notify physician immediately if inappropriate or prolonged penile erections occur while taking trazodone (Desyrel). If the erection persists longer than 1 hour, seek emergency department treatment. This condition is rare, but it has occurred in some men who have taken trazodone. If measures are not instituted immediately, impotence can result.
- Do not "double up" on medication if a dose of bupropion (Wellbutrin) is missed, unless advised to do so by the physician. Taking bupropion in divided doses will decrease the risk of seizures and other adverse effects.
- Be aware of possible risks of taking antidepressants during pregnancy. Safe use during pregnancy and lactation has not been fully established. These drugs are believed to cross the placental barrier readily; if so, the fetus could experience adverse effects of the drug. Inform the physician immediately if pregnancy occurs, is suspected, or is planned.
- Be aware of the side effects of antidepressants. Refer to written materials furnished by health-care providers for safe self-administration.
- Carry a card or other identification at all times describing the medications being taken.

■ INTERNET REFERENCES

- <http://www.mentalhealth.com/fr30.html>
- <http://www.nimh.nih.gov/publicat/medicate.cfm>
- <http://www.fadavis.com/townsend>

■ CHEMICAL CLASS: ANTIMANIC

Examples

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Therapeutic Plasma Level Range	Available Forms (mg)
Lithium carbonate (Eskalith; Lithane; Lithobid)	D/10–50 h	Manic episodes associated with bipolar disorder Maintenance therapy to prevent or diminish intensity of subsequent manic episodes Depression associated with bipolar disorder	Acute mania: 1.0–1.5 mEq/L Maintenance: 0.6–1.2 mEq/L	Caps: 150, 300, 600 Tabs: 300 Tabs (SR): 300, 450
Lithium citrate		<i>Unlabeled uses:</i> Major depression Neutropenia Cluster or migraine headaches (prophylaxis) Alcohol dependence		Syrup: 8 mEq (as citrate equivalent to 300 mg lithium carbonate) /5 mL

Action

Not fully understood, but antimanic effects may be the result of increases in norepinephrine reuptake and increased serotonin receptor sensitivity.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Cardiovascular or renal disease
- Dehydration

- Sodium depletion
- Pregnancy and lactation

Use Cautiously in:

- Elderly patients
- Any extent of cardiac, renal, or thyroid disease
- Diabetes mellitus
- Urinary retention
- Children younger than 12 years (safety not established)

Adverse Reactions and Side Effects

- Drowsiness, dizziness, headache
- Dry mouth, thirst
- Gastrointestinal upset
- Fine hand tremors
- Hypotension, arrhythmias, pulse irregularities
- Polyuria, dehydration
- Weight gain
- Hypothyroidism
- Arrhythmia

Interactions

- Increased renal excretion of lithium with **acetazolamide**, **osmotic diuretics**, and **theophylline**.
- Decreased renal excretion of lithium with **nonsteroidal anti-inflammatory drugs** (NSAIDs) and **thiazide diuretics**.
- Increased risk of neurotoxicity with **carbamazepine**, **haloperidol**, and **methyldopa**.
- Increased serum lithium levels with **fluoxetine** and **loop diuretics**.
- Increased effects of **neuromuscular blocking agents** and **tricyclic antidepressants** with lithium.
- Decreased pressor sensitivity of **sympathomimetics** when used with lithium.
- Use with **phenothiazines** may result in neurotoxicity, decreased phenothiazines concentration, or increased lithium concentration.
- Concurrent use with **verapamil** may result in decreased lithium levels or lithium toxicity.

Continued on the following page

Route and Dosage

- **Acute mania:** PO: 600 mg 3 times/day or 900 mg twice daily for the slow release form. Serum levels should be taken twice weekly at the initiation of therapy and until therapeutic level has been achieved.
- **Long-term (maintenance) use:** PO: 300 mg 3 to 4 times/day. Serum levels should be monitored in uncomplicated cases during maintenance therapy every 1 to 2 months.

■ CHEMICAL CLASS: ANTICONVULSANTS

Examples

Generic (Trade) Name	Preg-nancy Category/ Half-life	Indications	Therapeutic Plasma Level Range	Available Forms (mg)
Carbamazepine (Tegretol)	D/25–65 h (initial) 12–17 h (repeated doses)	Epilepsy Trigeminal neuralgia <i>Unlabeled uses:</i> Bipolar disorder Resistant schizophrenia Post-traumatic stress disorder Management of alcohol, cocaine, and benzodiazepine withdrawal Restless legs syndrome	4-12 µg/mL	Tabs: 100, 200 Tabs XR: 100, 200, 400 Caps XR: 200, 300 Suspension: 100/5 mL

Generic (Trade) Name	Preg-nancy Category/ Half-life	Indications	Therapeutic Plasma Level Range	Available Forms (mg)
Clonazepam (C-IV) (Klonopin)	C/18–50 h	Petit mal, akinetic, and myoclonic seizures Panic disorder <i>Unlabeled uses:</i> Acute manic episodes Multifocal tic disorders Uncontrolled leg movements during sleep Schizophrenia (adjunctive therapy) Neuralgias	20-80 ng/mL	Tabs: 0.5, 1, 2
Valproic acid (Depakene; Depakote)	D/5–20 h	Epilepsy Manic episodes Migraine prophylaxis	50-150 µg/mL	Caps: 250 Syrup: 250 /5 mL Tabs (DR): 125, 250, 500 Tabs (ER): 500 Caps (sprinkle): 125 Injection: 100/mL in 5 mL vial

Continued on the following page

Generic (Trade) Name	Preg-nancy Category/ Half-life	Indications	Therapeutic Plasma Level Range	Available Forms (mg)
Lamo-trigine (Lamictal)	C/~ 33 h	Epilepsy <i>Unlabeled use:</i> Bipolar disorder	Not estab- lished	Tabs: 25, 100, 150, 200 Tabs (chew- able): 2, 5, 25
Gaba-pentin (Neurontin)	C/5–7 h	Epilepsy <i>Unlabeled uses:</i> Bipolar disorder Migraine pro- phylaxis Neuropathic pain Tremors associ- ated with multiple sclerosis	Not estab- lished	Caps: 100, 300, 400 Tabs: 600, 800 Oral solu- tion: 250/5 mL
Topiramate (Topamax)	C/21 h	Epilepsy <i>Unlabeled uses:</i> Bipolar disorder Cluster headaches	Not estab- lished	Tabs: 25, 100, 200 Caps (sprinkle): 15, 25

Action

Action in the treatment of bipolar disorder is unclear.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Lactation

Carbamazepine

- Concomitant use with monoamine oxidase inhibitors

Clonazepam

- Glaucoma

Valproic acid; clonazepam

- Severe liver disease

Use Cautiously in:

- Elderly and debilitated patients
- Patients with hepatic, renal, or cardiac disease
- Pregnancy

Clonazepam

- Patients with history of drug abuse/addiction or depression/
suicidal ideation

Adverse Reactions and Side Effects

Clonazepam

- Drowsiness, ataxia
- Dependence, tolerance
- Blood dyscrasias

Carbamazepine

- Drowsiness, ataxia
- Nausea, vomiting
- Blood dyscrasias

Valproic acid

- Drowsiness, dizziness
- Nausea, vomiting
- Prolonged bleeding time

Gabapentin

- Drowsiness, dizziness, ataxia
- Nystagmus

Lamotrigine

- Ataxia, dizziness, headache
- Nausea, vomiting
- Risk of severe rash

Topiramate

- Drowsiness, dizziness, fatigue, ataxia
- Impaired concentration, nervousness
- Vision changes
- Nausea, weight loss

Continued on the following page

Interactions

The effects of:	Are increased by:	Are decreased by:	Concurrent use may result in:
Clonazepam	CNS depressants, cimetidine, hormonal contraceptives, disulfiram, fluoxetine, isoniazid, ketoconazole, metoprolol, propoxyphene, propranolol, valproic acid	Rifampin, barbiturates, theophylline (↓ sedative effects), phenytoin	Increased phenytoin levels; decreased efficacy of levodopa
Carbamazepine	Verapamil, diltiazem, propoxyphene, erythromycin, clarithromycin, SSRIs, antidepressants, cimetidine, danazol	Cisplatin, doxorubicin, felbamate, rifampin, phenobarbital, phenytoin, primidone, theophylline	Decreased levels of corticosteroids, doxycycline, felbamate, quinidine, warfarin, estrogen-containing contraceptives, barbiturates, cyclosporine, benzodiazepines, theophylline, lamotrigine, valproic acid, bupropion, haloperidol

The effects of:	Are increased by:	Are decreased by:	Concurrent use may result in:
Valproic acid	Chlorpromazine, cimetidine, erythromycin, felbamate, salicylates	Rifampin, carbamazepine, cholestyramine, lamotrigine, phenobarbital, phenytoin	Increased effects of tricyclic antidepressants, carbamazepine, CNS depressants, ethosuximide, lamotrigine, phenobarbital, phenytoin, warfarin and other anti-platelet agents, zidovudine
Gabapentin	Cimetidine, CNS depressants	Antacids	
Lamotrigine	Folate inhibitors, valproic acid	Primidone, phenobarbital, phenytoin, rifampin, succinimides	Decreased levels of valproic acid
Topiramate		Phenytoin, carbamazepine, valproic acid	Increased risk of CNS depression with alcohol or other CNS depressants. Increased risk of kidney stones with carbonic anhydrase inhibitors. Increased effects of phenytoin. Decreased effects of oral contraceptives and valproic acid.

Continued on the following page

Route and Dosage**Clonazepam (Klonopin)**

- **Seizures: Adults**—PO: 0.5 mg 3 times/day; may increase by 0.5 to 1 mg every 3rd day. Maximum daily dose: 20 mg. **Children <10 years or 30 kg**—PO: Initial daily dose 0.01 to 0.03 mg/kg/d (not to exceed 0.05 mg/kg/d) given in 2 to 3 divided doses; increase by no more than 0.25 to 0.5 mg every 3rd day until therapeutic blood levels are reached (not to exceed 0.2 mg/kg/d).
- **Panic disorder:** PO: 0.125 mg twice daily; increase after 3 days toward target dose of 1 mg/d. Some patients may require up to 4 mg/d.
- **Bipolar disorder, mania:** PO: 0.75 to 16 mg/d.
- **Multifocal tic disorders:** PO: 1.5 to 12 mg/d.
- **Uncontrolled leg movements during sleep:** PO: 0.5 to 2 mg/night.
- **Schizophrenia (adjunct therapy):** PO: 0.5 to 2 mg/d.
- **Neuralgias:** PO: 2 to 4 mg/d.

Carbamazepine (Tegretol)

- **Seizure disorders: Adults and children >12 years**—PO: 200 mg 2 times/day or 100 mg 4 times/day of suspension. Increase by 200 mg/d every 7 days until therapeutic levels are achieved. Maximum dose: 1000 mg/d in children 12 to 15 years; 1200 mg/d in patients >15 years. **Children 6 to 12 years**—PO: 100 mg 2 times/day (50 mg 4 times/day of suspension). Increase by 100 mg weekly until therapeutic levels are obtained. Maximum daily dose: 1000 mg. **Children <6 years**—PO: 10 to 20 mg/kg/d in 2 to 3 divided doses. May increase by 100 mg/d at weekly intervals. Maximum daily dose: 400 mg.
- **Trigeminal neuralgia:** PO: Initial dose 100 mg 2 times/day. May increase by up to 200 mg/d using 100-mg increments every 12 hours. Maximum daily dose: 1200 mg.
- **Bipolar disorder, mania:** PO: Initial dose 200 to 600 mg/d in 3 to 4 divided doses. May increase by up to 200 mg/d every 7 days until therapeutic levels are achieved. Maintenance dose averages ~ 1000 mg/d. Range: 200 to 1600 mg/d. Doses higher than 1600 mg/d are not recommended.
- **Resistant schizophrenia:** PO: Dosage same as seizure disorders.

- **Management of alcohol withdrawal:** PO: 200 mg 4 times/day up to 1000 mg/d.
- **Management of cocaine and benzodiazepine withdrawal:** PO: 200 mg 2 times/day up to 800 mg/d.
- **Restless leg syndrome:** PO: 100 to 300 mg at bedtime.

Valproic Acid (Depakene; Depakote)

- **Epilepsy:** PO: Initial dose: 5 to 15 mg/kg/d. Increase by 5 to 10 mg/kg/wk until therapeutic levels are reached. Maximum recommended dosage: 60 mg/kg/d. When daily dosage exceeds 250 mg, give in 2 divided doses.
- **Manic episodes:** PO (delayed-release tabs): Initial dose: 750 mg/d in divided doses. Titrate rapidly to desired clinical effect or trough plasma levels of 50 to 125 µg/mL. Maximum recommended dose: 60/mg/kg/d.
- **Migraine prophylaxis:** PO (delayed-release tabs): 250 mg 2 times/day. Some patients may require up to 1000 mg/d. No evidence that higher doses lead to greater efficacy.

Lamotrigine (Lamictal)

- **Epilepsy: Adults and children >12 years**—Adjunctive therapy with carbamazepine, phenobarbital, phenytoin, or primidone: PO: 50 mg as a single daily dose for 2 weeks, then 50 mg 2 times/day for next 2 weeks; then increase by 100 mg/d on a weekly basis to maintenance dose of 300 to 500 mg/d in 2 doses. If valproic acid is also being taken, the initial dose should be 25 mg every other day for 2 weeks, then 25 mg once daily for next 2 weeks; then increase by 25 to 50 mg/d every 1 to 2 weeks to maintenance dose of 50 to 75 mg 2 times/day (not to exceed 200 mg/d). **Children 2 to 12 years**—Indicated only as adjunctive therapy for generalized seizures of Lennox-Gastaut syndrome. Refer to manufacturer's dosing recommendations. Safety and efficacy for other uses in patients <16 years of age have not been established.
- **Bipolar disorder:** PO: 25 mg/d for the first 2 weeks, then 50 mg/d for weeks 3 and 4. After that, 50 mg can be added per week as clinically indicated. **When administered concomitantly with valproic acid:** 12.5 mg/d or 25 mg every other day for 2 weeks, then 25 mg/d for weeks 3 and 4.

Continued on the following page

Gabapentin (Neurontin)

- **Epilepsy: Adults and children >12 years**—PO: Initial dose: 300 mg 3 times/day. Titration may be continued until desired results have been achieved (range is 900 to 1800 mg/d in 3 divided doses). Doses should not be more than 12 hours apart. Doses up to 3600 mg have been well tolerated. **Children 3 to 12 years**—Initial dose: 10 to 15 mg/kg/d in 3 divided doses. Titrate dosage over 3 days to 25 to 35 mg/kg/d in 3 divided doses for children ≥5 years (40 mg/kg/d for children ages 3 and 4). Dosage interval should not exceed 12 hours. Dosages up to 50 mg/kg/d have been used.
- **Bipolar disorder:** PO: 900 to 1800 mg/d in 3 divided doses.

Topiramate (Topamax)

- **Epilepsy: Adults and children ≥17 years**—PO: Initial dose: 25 to 50 mg/d. Gradually increase by 25 to 50 mg weekly up to 200 mg 2 times/day. Doses >400 mg/d have not been shown to improve responses. **Children 2 to 17 years**—PO: 5 to 9 mg/kg/d in 2 divided doses; initiate with 25 mg (or less, based on 1 to 3 mg/kg) nightly for 7 days, then increase at 1- to 2-week intervals in increments of 1 to 3 mg/kg/d in 2 divided doses. Titration should be based on clinical outcome.
- **Bipolar disorder:** PO: Initial dose: 25 to 50 mg/d. Increase to target range of 125 to 400 mg/d.

■ CHEMICAL CLASS: CALCIUM CHANNEL BLOCKERS

Example

Generic (Trade) Name	Preg-nancy Category/ Half-life	Indications	Therapeutic Plasma Level Range	Available Forms (mg)
Verapamil (Calan; Isoptin)	C/3–7 h (initially) 4.5–12 h (repeated dosing)	Angina Arrhythmias Hypertension <i>Unlabeled uses:</i> Bipolar mania Migraine headache prophylaxis	80–300 ng/mL	Tabs: 40, 80, 120 Tabs (XR; SR): 120, 180, 240 Caps SR: 120, 180, 240, 360 Caps XR: 100, 120, 180, 200, 240, 300 Injection: 2.5/mL

Action

Action in the treatment of bipolar disorder is unclear.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Severe left ventricular dysfunction
- Heart block
- Hypotension
- Cardiogenic shock
- Congestive heart failure

Use cautiously in:

- Liver or renal disease
- Cardiomyopathy
- Intracranial pressure
- Elderly patients
- Pregnancy and lactation (safety not established)

Adverse Reactions and Side Effects

- Drowsiness
- Dizziness
- Headache
- Hypotension
- Bradycardia
- Nausea
- Constipation

Interactions

- Additive hypotension with **fentanyl**, other **antihypertensives**, **nitrates**, **alcohol**, or **quinidine**.
- Antihypertensive effects may be decreased with NSAIDs.
- Concurrent use may increase serum levels of **digoxin**.
- Concurrent use with **beta blockers**, **digoxin**, **disopyramide**, or **phenytoin** may result in bradycardia, conduction defects, or chronic heart failure.
- Concurrent use may decrease the metabolism of and increase the risk of toxicity from **cyclosporine**, **prazosin**, **quinidine**, or **carbamazepine**.

Continued on the following page

- May decrease the effectiveness of **rifampin**.
- Increases the muscle-paralyzing effects of **nondepolarizing neuromuscular-blocking agents**.
- Verapamil effectiveness may be decreased by coadministration with **vitamin D compounds** and **calcium**.
- May alter serum **lithium** levels.

Route and Dosage

- **Angina:** PO: 80 to 120 mg 3 times/day.
- **Arrhythmias:** PO: 240 to 320 mg/d in 3 or 4 divided doses.
- **Hypertension:** PO: 40 to 80 mg 3 times/day. Maximum recommended daily dose: 360 mg.
- **Bipolar mania:** PO: 80 to 320 mg/d in divided doses.
- **Migraine prophylaxis:** PO (tabs SR; XR): 120 to 240 mg/d.

■ CHEMICAL CLASS: THIENOBENZODIAZEPINE

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Olanzapine (Zyprexa)	C/21–54 h	Treatment of schizophrenia Acute manic episodes	Tabs: 2.5, 5, 7.5, 10, 15, 20 Tabs (orally disintegrating): 5, 10, 15, 20

Action

- Efficacy in schizophrenia is achieved through a combination of dopamine and serotonin type 2 (5HT₂) antagonism.
- Mechanism of action in the treatment of acute manic episodes is unknown.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Lactation

Orally disintegrating tablets only:

- Phenylketonuria (orally disintegrating tablets contain aspartame)

Use cautiously in:

- Hepatic insufficiency
- Elderly clients (reduce dosage)
- Pregnancy and children (safety not established)
- Cardiovascular or cerebrovascular disease
- History of glaucoma
- History of seizures
- History of attempted suicide
- Prostatic hypertrophy

Adverse Reactions and Side Effects

- Drowsiness, dizziness, weakness
- Dry mouth, constipation, increased appetite
- Orthostatic hypotension, tachycardia
- Restlessness
- Rhinitis
- Tremor

Interactions

- Decreased effects of olanzapine with **carbamazepine**, **omeprazole**, or **rifampin**.
- Increased serum levels of olanzapine with **fluvoxamine**.
- Increased CNS effects with concomitant use of **alcohol** and other **CNS depressants**.
- May antagonize the effects of **levodopa** and other **dopamine agonists**.

Route and Dosage

- **Schizophrenia:** PO: Initial dose: 5 to 10 mg once daily. May increase at weekly intervals by 5 mg/d (not to exceed 20 mg/d).
- **Bipolar mania:** PO: Initial dose: 10 to 15 mg once daily. May increase every 24 hours by 5 mg/d (not to exceed 20 mg/d).
- **Elderly and debilitated patients:** PO: Initial dose: 5 mg/d. When indicated, use caution with dose escalation.

■ NURSING DIAGNOSES RELATED TO ALL MOOD-STABILIZING DRUGS

1. Risk for injury related to manic hyperactivity.
2. Risk for self-directed or other-directed violence related to unresolved anger turned inward on the self or outward on the environment.
3. Risk for injury related to lithium toxicity.
4. Risk for activity intolerance related to side effects of drowsiness and dizziness.

■ NURSING IMPLICATIONS FOR MOOD-STABILIZING DRUGS

1. Assess for changes in mood, particularly mood swings.
2. For the client on lithium therapy, assess for signs of lithium toxicity: ataxia, blurred vision, severe diarrhea, persistent nausea and vomiting, and tinnitus.
3. Instruct client to take medication on a regular basis, even when feeling well. Discontinuation can result in return of symptoms.
4. Ensure that client does not drive or operate dangerous machinery until response is stabilized. Drowsiness and dizziness can occur.
5. Ensure that client on lithium therapy receives sufficient dietary sodium intake and 2500 to 3000 mL of water per day.
6. Notify the physician if vomiting or diarrhea occur. These symptoms in client on lithium therapy can result in increased risk of toxicity.
7. Some clients may gain weight on this therapy. Help client plan appropriate diet from the Food Guide Pyramid to ensure that weight gain does not become a problem. Include adequate sodium and other nutrients while decreasing the number of calories.

8. Administer the medication with food if nausea becomes a problem.

■ CLIENT/FAMILY EDUCATION RELATED TO MOOD-STABILIZING DRUGS

- Do not drive or operate dangerous machinery. Drowsiness or dizziness can occur.
- Do not stop taking the drug abruptly; can produce serious withdrawal symptoms. The physician will administer orders for tapering the drug when therapy is to be discontinued.
- Report the following symptoms to the physician immediately:
Client taking anticonvulsant: unusual bleeding, spontaneous bruising, sore throat, fever, malaise, skin rash, dark urine, and yellow skin or eyes. *Client taking calcium channel blocker:* irregular heartbeat, shortness of breath, swelling of the hands and feet, pronounced dizziness, chest pain, profound mood swings, and severe and persistent headache. *Client taking lithium:* ataxia, blurred vision, severe diarrhea, persistent nausea and vomiting, tinnitus, excessive urine output, increasing tremors, and mental confusion. *Client taking olanzapine:* high fever; muscle rigidity; altered mental state; and abnormal, involuntary movements of the face, head, or extremities.
- For the client on lithium: ensure that the diet contains adequate sodium. Drink 6 to 8 glasses of water each day. Avoid drinks that contain caffeine (that have a diuretic effect). Have serum lithium level checked every 1 to 2 months, or as advised by physician.
- Avoid consuming alcoholic beverages and nonprescription medications without approval from physician.
- Carry card at all times identifying the name of medications being taken.

■ INTERNET REFERENCES

- <http://www.rxlist.com>
- <http://www.nimh.nih.gov/publicat/medicate.cfm>
- <http://www.fadavis.com/townsend>

■ CHEMICAL CLASS: PHENOTHIAZINES

Examples

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Chlorpromazine (Thorazine)	UK/8–35 h	Psychotic disorders Pediatric behavioral disorders Nausea and vomiting Intractable hiccups Preoperative sedation Acute intermittent porphyria	Tabs: 10, 25, 50, 100, 200 Caps (SR): 30, 75, 150 Syrup: 10/5 mL Concentration: 30/mL, 100/mL Suppositories: 25, 100 Injection: 25/mL
Fluphenazine (Prolixin)	C/HCl: 15 h Decanoate: 6.8–9.6 days	Psychotic disorders	Tabs: 1, 2.5, 5, 10 Elixir: 2.5/5 mL Concentrate: 5/mL Injection: 2.5/mL Injection (Decanoate): 25 mL
Mesoridazine (Serentil)	C/24–48 h	Refractory schizophrenia	Tabs: 10, 25, 50, 100 Concentrate: 25/mL Injection: 25/mL
Perphenazine (Trilafon)	C/8–21 h	Psychotic disorders Nausea and vomiting <i>Unlabeled uses:</i> Intractable hiccups	Tabs: 2, 4, 8, 16 Concentrate: 16/5 mL Injection: 5/mL
Prochlorperazine (Compazine)	C/Unknown	Psychotic disorders Nonpsychotic anxiety Nausea and vomiting <i>Unlabeled uses:</i> Migraine headache	Tabs: 5, 10 Caps (SR): 10, 15 Suppositories: 2.5, 5, 25 Syrup: 5/5mL Injection: 5/mL

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Thioridazine (Mellaril)	C/21–24 h	Psychotic disorders Psychoneurotic manifestations Pediatric behavioral disorders	Tabs: 10, 15, 25, 50, 100, 150, 200 Concentrate: 30/mL; 100/mL Suspension: 25/5 mL; 100/5 mL
Trifluoperazine (Stelazine)	C/Unknown	Schizophrenia Nonpsychotic anxiety	Tabs: 1, 2, 5, 10 Concentrate: 10/mL Injection: 2/mL

Action

- These drugs are thought to work by blocking postsynaptic dopamine receptors in the basal ganglia, hypothalamus, limbic system, brainstem, and medulla.
- They also demonstrate varying affinity for cholinergic, alpha₁-adrenergic, and histaminic receptors.
- Antipsychotic effects may also be related to inhibition of dopamine-mediated transmission of neural impulses at the synapses.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity (cross-sensitivity may exist among phenothiazines)
- In comatose or severely central nervous system (CNS)–depressed clients
- Poorly controlled seizure disorders
- Clients with blood dyscrasias
- Clients with liver, renal, or cardiac insufficiency
- Coadministration with **pimozide**

Use cautiously in:

- Severely ill or elderly clients
- Diabetes mellitus

Continued on the following page

- History of glaucoma
- Epilepsy
- Respiratory insufficiency
- Prostatic hypertrophy
- Pregnancy and lactation (safety has not been established)

Adverse Reactions and Side Effects

- Dry mouth
- Blurred vision
- Constipation
- Urinary retention
- Nausea
- Skin rash
- Sedation
- Orthostatic hypotension
- Photosensitivity
- Decreased libido
- Amenorrhea
- Retrograde ejaculation
- Gynecomastia
- Weight gain
- Reduction of seizure threshold
- Agranulocytosis
- Extrapyramidal symptoms
- Tardive dyskinesia
- Neuroleptic malignant syndrome

Interactions

- Additive effects with other **anticholinergics**, **antihypertensives**, and **CNS-active drugs**.
- Coadministration with phenothiazines may decrease the effects of **CNS stimulants**, **bromocriptine**, and **guanethidine**.
- Additive QT prolongation effect with **pimozide**.
- Decreased pharmacological effects of phenothiazines with **antacids** (aluminum salts), **anticholinergics**, and **barbiturates**.
- Increased plasma levels of both drugs with coadministration of **phenothiazines** and **propranolol**.
- Decreased pressor effects of **epinephrine** and **norepinephrine**.

- Increased effects of **valproic acid**, **tricyclic antidepressants**.
- Coadministration with **lithium** may cause disorientation, unconsciousness, and extrapyramidal symptoms.
- Coadministration with **meperidine** may produce excessive sedation and hypotension.

Route and Dosage

Chlorpromazine (Thorazine)

- **Psychotic disorders: Adults**—PO: 25 mg 3 times/day. Increase gradually until effective dose is reached, usually 400 mg/d. IM: Initial dose: 25 mg. May give additional 25 to 50 mg in 1 hour. Increase gradually over several days (up to 400 mg every 4 to 6 hours in severe cases).
- **Pediatric behavioral disorders: Children >6 months**—PO: 0.5 mg/kg every 4 to 6 hours, as needed. Rectal: 1 mg/kg every 6 to 8 hours, as needed. IM: 0.5 mg/kg every 6 to 8 hours (not to exceed 40 mg/d in children 6 months to 5 years or 75 mg/d in children 5 to 12 years).
- **Nausea and vomiting: Adults**—PO: 10 to 25 mg every 4 to 6 hours. Rectal: 50 to 100 mg every 6 to 8 hours. IM: 25 mg initially, may repeat 25 to 50 mg every 3 to 4 hours. **Children >6 months**—PO: 0.55 mg/kg every 4 to 6 hours. Rectal: 1.1 mg/kg every 6 to 8 hours. IM: 0.55 mg/kg every 6 to 8 hours (not to exceed 40 mg/d in children up to 5 years or 75 mg/d in children 5 to 12 years).
- **Intractable hiccups: Adults**—PO: 25 to 50 mg 3 or 4 times daily. If symptoms persist for 2 to 3 days, give 25 to 50 mg IM.
- **Preoperative sedation: Adults**—PO: 25 to 50 mg 2 to 3 hours before surgery. IM: 12.5 to 25 mg 1 to 2 hours before surgery. **Children**—PO: 0.5 mg/kg 2 to 3 hours before surgery, or IM: 0.5 mg/kg 1 to 2 hours before surgery.
- **Acute intermittent porphyria: Adults**—PO: 25 to 50 mg 3 or 4 times/day, or IM: 25 mg 3 or 4 times/day until patient can take PO.

Fluphenazine (Prolixin)

- **Psychotic disorders: Adults**—PO: Initial dose: 2.5 to 10 mg/d in divided doses every 6 to 8 hours. Maintenance dose: 1 to 5 mg/d.

Continued on the following page

IM: 1.25 to 2.5 mg every 6 to 8 hours. **Elderly or debilitated patients**—PO, IM: 1 to 2.5 mg/d initially.

- **Decanoate formulation: Adults**—IM, SC: Initial dose: 12.5 to 25 mg. May be repeated every 1 to 4 weeks. Dose may be slowly increased in 12.5-mg increments as needed (not to exceed 100 mg/dose).

Mesoridazine (Serentil)

- **Schizophrenia: Adults**—PO: 50 mg 3 times/day. Usual optimum daily dose range: 100 to 400 mg. IM: Initial dose: 25 mg. May repeat dose in 30 to 60 minutes. Usual optimum dose range: 25 to 200 mg/d.

Perphenazine (Trilafon)

- **Psychotic disorders: Adults**—PO: *Outpatients*: 4 to 8 mg 3 times/day. Reduce as soon as possible to minimum effective dose. *Hospitalized patients*: 8 to 16 mg 2 to 4 times/day, not to exceed 64 mg/d. IM: 5 mg every 6 hours, not to exceed 30 mg/d.
- **Nausea and vomiting and intractable hiccups: Adults**—PO: 8 to 16 mg daily in divided doses, up to 24 mg, if necessary. IM: 5 mg repeated every 6 hours as necessary, not to exceed 30 mg/d. **Children >12 years**—PO: May receive the lowest limit of the adult dose.

Prochlorperazine (Compazine)

- **Psychotic disorders: Adults and children >12 years**—PO: 5 to 10 mg 3 to 4 times/day. May be increased every 2 to 3 days (up to 150 mg/d). IM: 10 to 20 mg every 2 to 4 hours for up to 4 doses, then 10 to 20 mg every 4 to 6 hours. **Children 2 to 12 years**—PO/Rectal: 2.5 mg 2 or 3 times/day. **Children 2 to 5 years**—Do not exceed total daily dose of 20 mg. **Children 6 to 12 years**—Do not exceed total daily dose of 25 mg. IM: 0.132 mg/kg (not to exceed 10 mg/dose).
- **Anxiety: Adults and children >12 years**—PO: 5 mg 3 to 4 times/day, not to exceed 20 mg/d or longer than 12 weeks. Sustained-release caps may be given as 15 mg once daily or 10 mg twice daily.

- **Nausea and vomiting: Adults**—PO: 5 to 10 mg 3 or 4 times/day. SR caps: 15 mg once daily or 10 mg twice daily. Rectal: 25 mg twice daily. IM: 5 to 10 mg. May repeat every 3 or 4 hours, not to exceed 40 mg/d. **Children 20 to 29 lb**—PO/Rectal: 2.5 mg 1 or 2 times/day, not to exceed 7.5 mg/d. **Children 30 to 39 lb**—PO/Rectal: 2.5 mg 2 or 3 times/day, not to exceed 10 mg/d. **Children 40 to 85 lb**—PO/Rectal: 2.5 mg 3 times/day or 5 mg 2 times/day, not to exceed 15 mg/d. **Children > 20 lb or 2 years of age**—IM: 0.132 mg/kg. Usually only 1 dose is required.
- **Relief of migraine headache: Adults**—IV: 10 mg.

Thioridazine (Mellaril)

- **Psychotic disorders: Adults**—PO: 50 to 100 mg 3 times/day initially. May be gradually increased to a maximum of 800 mg/d to control symptoms. Gradually reduce to the minimum maintenance dose between 200 and 800 mg/d in 2 to 4 divided doses.
- **Psychoneurotic manifestations: Adults**—PO: Initial dose: 25 mg 3 times/day. Adjust dose from 10 mg 2 to 4 times/day for milder cases to 50 mg 3 or 4 times/day for more severe cases. Total daily dosage range: 20 to 200 mg.
- **Pediatric behavioral disorders: Children ages 2 to 12**—PO: Initial dose: 0.5 mg/kg/d in divided doses. May be gradually increased to a maintenance dose of up to 3 mg/kg/d.

Trifluoperazine (Stelazine)

- **Schizophrenia: Adults**—PO: 2 to 5 mg 2 times/day. Usual optimum dosage range: 15 to 20 mg/d, although a few may require 40 mg/d or more. IM: 1 to 2 mg every 4 to 6 hours, not to exceed 10 mg/24 hours. **Children 6 to 12 years**—PO: Initial dose: 1 mg once or twice daily. May increase dose gradually to a maximum of 15 mg/d. IM: Not recommended for children, but if required to control severe symptoms, may administer 1 mg once or twice daily.
- **Nonpsychotic anxiety: Adults**—PO: 1 to 2 mg 2 times/day. Do not administer more than 6 mg/d or for longer than 12 weeks.

Continued on the following page

■ CHEMICAL CLASS: BENZISOXAZOLE

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Risperidone (Risperdal)	C/~20	Schizophrenia	Tabs: 0.25, 0.5, 1, 2, 3, 4 Oral Solution: 1/mL

Action

- Exerts antagonistic effects on dopamine type 2 (D₂), serotonin type 2 (5HT₂), α₁- and α₂-adrenergic, and H₁ histaminergic receptors

Contraindications and Precautions

Contraindicated in:

- Known hypersensitivity
- Comatose or severely depressed patients
- Clients with cardiac disease
- Lactation

Use cautiously in:

- Clients with hepatic or renal impairment
- Clients with history of seizures
- Clients exposed to temperature extremes
- Clients with history of suicide attempts
- Pregnancy (safety not established)

Adverse Reactions and Side Effects

- Anxiety
- Agitation
- Insomnia
- Sedation
- Extrapyramidal symptoms
- Dizziness
- Headache
- Constipation

- Nausea
- Rhinitis
- Rash
- Tachycardia

Interactions

- Increased effects of risperidone with **clozapine**.
- Decreased effects of **levodopa** and **other dopamine agonists**.
- Decreased effectiveness of risperidone with **carbamazepine**.
- Additive CNS depression with **CNS depressants**, such as **alcohol**, **antihistamines**, **sedative/hypnotics**, and **opioid analgesics**.

Route and Dosage

- Schizophrenia: Adults**—PO: Initial dose: 1 mg twice daily. May increase by 1 mg twice daily on 2nd and 3rd day to 3 mg twice daily on day 3. Further increments may be made at weekly intervals by 1 mg twice daily (usual range, 4 to 6 mg/d, not to exceed 16 mg/d). Optimum dosage range: 4 to 8 mg/d. **Elderly and debilitated patients**—PO: Initial dose: 0.5 mg twice daily. May increase by 0.5 mg twice daily, up to 1.5 mg twice daily, then increase at weekly intervals if necessary.

■ CHEMICAL CLASS: BUTYROPHENONE

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Haloperidol (Haldol)	C/21–24 h (oral, IM lactate); 3 wk (IM decanoate)	Psychotic disorders Tourette's disorder Pediatric behavior problems and hyperactivity <i>Unlabeled uses:</i> Intractable hiccups Infantile autism Control in acute psychiatric situations	Tabs: 0.5, 1, 2, 5, 10, 20 Concentrate: 2/mL Injection: 5/mL (lactate) Injection: 50/mL; 100/mL (decanoate)

Continued on the following page

Action

- Blocks postsynaptic dopamine receptors in the hypothalamus, limbic system, and reticular formation.
- Demonstrates varying affinity for cholinergic, α_1 -adrenergic, and histaminic receptors.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity to the drug
- In comatose or severely CNS-depressed clients
- Clients with blood dyscrasias
- Parkinson's disease
- Glaucoma
- Clients with liver, renal, or cardiac insufficiency

Use cautiously in:

- Severely ill or elderly clients
- Diabetic clients
- Clients with history of seizures
- Clients with respiratory insufficiency
- Prostatic hypertrophy
- Pregnancy and lactation (safety has not been established)

Adverse Reactions and Side Effects

Refer to this section under Phenothiazines.

Interactions

- Additive hypotension with **antihypertensives**.
- Additive anticholinergic effects with other **drugs that have anticholinergic properties**.
- Additive CNS depression with other drugs that cause CNS depression, such as **alcohol, antihistamines, opioid analgesics, and sedative/hypnotics**.
- Decreased effects of haloperidol with **phenytoin** and **carbamazepine**.
- Increased effects of **tricyclic antidepressants** with haloperidol.
- Decreased effects of **guanethidine** with haloperidol.
- Increased risk of EPS with **fluoxetine**.
- Potential for neurotoxicity with **lithium**.
- Decreased plasma levels of haloperidol with **rifampin**.

- Severe hypotension and tachycardia with **epinephrine**.
- Risk of psychosis with **methyldopa**.

Route and Dosage

- **Psychotic disorders: Adults**—PO: Initial dose: 0.05 to 5 mg 2 to 3 times daily. Patients with severe symptoms may require up to 100 mg/d. **Elderly or debilitated patients**—PO: 0.5 to 2 mg 2 or 3 times/day. **Children 3 to 12 years**—PO: 25 to 50 $\mu\text{g}/\text{kg}/\text{d}$. May increase in 0.5-mg increments every 5 to 7 days up to 0.15 mg/kg/d given in 2 or 3 divided doses.
- **For control of severe symptoms: Adults**—IM: 2 to 5 mg every 1 to 8 hours.
- **For chronic psychosis requiring prolonged antipsychotic therapy: Adults**—IM decanoate: 10 to 15 times the previous daily oral dose, not to exceed 100 mg initially. Repeat every 4 weeks, or adjust interval to patient response.
- **Tourette's disorder: Adults**—PO: Initial dose: 0.5 to 1.5 mg 3 times/day. Increase dose gradually as determined by patient response. Up to about 10 mg/d may be required. **Children 3 to 12 years**—PO: 0.05 to 0.075 mg/kg/d.
- **Behavioral disorders/hyperactivity: Children 3 to 12 years**—PO: 0.05 to 0.075 mg/kg/d.
- **Intractable hiccups: Adults**—PO: 1.5 mg 3 times/day. **Adults**—IM/IV: 3 to 15 mg in divided doses.
- **Infantile autism: Children 3 to 12 years**—PO: 0.5 to 4 mg/d.
- **Control in acute psychiatric situations: IM/IV: 2 to 30 mg**, approximately every 60 minutes, at a rate of 5 mg/min.

■ CHEMICAL CLASS: DIBENZOXAZEPINE

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Loxapine (Loxitane)	Initial: 5 h Terminal: 19 h	Schizophrenia	Caps: 5, 10, 25, 50

Continued on the following page

Action

- Not fully understood
- Thought to act primarily in the reticular formation
- Reduces firing threshold of CNS neurons

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Comatose or severe drug-induced depressed states
- Clients with blood dyscrasias
- Parkinson's disease
- Hepatic, renal, or cardiac insufficiency
- Severe hypotension or hypertension
- Children younger than 16 years; pregnancy and lactation (safety has not been established)

Use cautiously in:

- Patients with history of seizures
- Respiratory insufficiency
- Prostatic hypertrophy
- Elderly or debilitated patients
- Glaucoma

Adverse Reactions and Side Effects

Refer to this section under Phenothiazines.

Interactions

- Increased CNS depression with other drugs that produce CNS depression, such as **alcohol, anxiolytics, antidepressants, and sedative/hypnotics.**
- Concomitant use with **lorazepam** may result in respiratory depression, stupor, and/or hypotension.

Route and Dosage

- **Schizophrenia: Adults**—PO: Initial dose: 10 mg 2 times/day. May increase dose fairly rapidly over 7 to 10 days, depending on severity of condition. Optimal maintenance dose: 20 to 60 mg/d (range: 20 to 250 mg/d). Maintain dose at lowest level compatible with control of symptoms.

■ CHEMICAL CLASS: DIBENZODIAZEPINE

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Clozapine (Clozaril)	B/4–66 h	Refractory schizophrenia	Tabs: 25, 100

Action

- Exerts an antagonistic effect on dopamine receptors, with a particularly high affinity for the D₄ receptor.
- It appears to be more active at limbic than at striatal dopamine receptors.
- Also acts as an antagonist at adrenergic, cholinergic, histaminergic, and serotonergic receptors.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Myeloproliferative disorders
- History of clozapine-induced agranulocytosis or severe granulocytopenia
- Concomitant use with other drugs that have the potential to suppress bone marrow function
- Severe CNS depression or comatose states
- Uncontrolled epilepsy
- Lactation
- Children (safety has not been established)

Use cautiously in:

- Patients with hepatic, renal, or cardiac insufficiency
- Diabetes mellitus
- Prostatic enlargement
- Narrow-angle glaucoma
- Pregnancy

Continued on the following page

Adverse Reactions and Side Effects

- Drowsiness, dizziness
- Agranulocytosis
- Seizures (appear to be dose-related)
- Salivation
- Sedation
- Tachycardia
- Constipation
- Fever
- Weight gain
- Orthostatic hypotension
- Neuroleptic malignant syndrome
- Hyperglycemia

Interactions

- Increased effects of **risperidone** with Clozaril.
- Additive anticholinergic effects with other **agents having anticholinergic properties.**
- Additive CNS depression with **alcohol, antidepressants, antihistamines, opioid analgesics, and sedative/hypnotics.**
- Increased risk of agranulocytosis with **agents that suppress bone marrow function.**
- Additive hypotensive effects with **antihypertensive agents.**
- Decreased effects of clozaril with **phenytoin, nicotine, and rifampin.**
- Increased plasma levels of Clozaril with **cimetidine, caffeine, erythromycin, and selective serotonin reuptake inhibitors** (particularly **fluvoxamine**).

Route and Dosage

- **Schizophrenia: Adults**—PO: Initial dose: 12.5 mg once or twice daily. May increase dose by 25 to 50 mg/d over 2 weeks to a target dose of 300 to 450 mg/d. If required, make additional increases in increments of 100 mg not more than once or twice weekly to a maximum dose of 900 mg/d in 3 divided doses. Titrate dose slowly to observe for possible seizures and agranulocytosis. Ordinarily only a 1-week supply of medication is dispensed at a

time, and clients are required to present for weekly white blood cell (WBC) counts to monitor for adverse effect of agranulocytosis.

■ CHEMICAL CLASS: DIBENZOTHIAZEPINE

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Quetiapine (Seroquel)	C/6 h	Schizophrenia	Tabs: 25, 100, 200, 300

Action

- Antipsychotic activity is thought to be mediated through a combination of dopamine type 2 (D₂) and serotonin type 2 (5HT₂) antagonism. Other effects may be due to antagonism of histamine H₁ receptors and adrenergic α₁ receptors.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Lactation
- Children (safety has not been established)

Use cautiously in:

- Clients with hepatic or cardiovascular disease
- Clients with history of seizures
- Comatose or other CNS-depressed clients
- Clients at risk for aspiration pneumonia
- Pregnancy
- Elderly and debilitated clients

Adverse Reactions and Side Effects

- Somnolence
- Dizziness
- Headache
- Constipation

Continued on the following page

- Dry mouth
- Dyspepsia
- Weight gain
- Orthostatic hypotension
- Neuroleptic malignant syndrome
- Extrapyramidal symptoms
- Tardive dyskinesia
- Cataracts
- Lowered seizure threshold

Interactions

- Additive hypotension with **antihypertensive drugs**.
- Additive CNS depression with **alcohol, antihistamines, opioid analgesics, and sedative/hypnotics**.
- May antagonize the effects of **levodopa** and **dopamine agonists**.
- Decreased clearance of **lorazepam** with quetiapine.
- Increased clearance of quetiapine with **thioridazine, phenytoin, carbamazepine, barbiturates, rifampin, and glucocorticoids**.
- Decreased clearance of quetiapine with **cimetidine, ketoconazole, itraconazole, fluconazole, and erythromycin**.

Route and Dosage

- **Schizophrenia: Adults**—PO: Initial dose: 25 mg 2 times/day. May increase in increments of 25 to 50 mg 2 or 3 times/day on days 2 and 3 to a target dose range of 300 to 400 mg/d (in 2 or 3 divided doses) by day 4. Maximum daily dose: 800 mg.

■ CHEMICAL CLASS: DIHYDROCARBOSTYRIL

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Aripiprazole (Abilify)	C/75 h (aripiprazole); 94 h (metabolite)	Schizophrenia	Tabs: 10, 15, 20, 30

Action

- The efficacy of aripiprazole is thought to occur through a combination of partial agonist activity at D₂ and 5-HT_{1A} receptors and antagonist activity at 5-HT_{2A} receptors.
- Also exhibits antagonist activity at adrenergic α₁ receptors.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Lactation

Use cautiously in:

- Alzheimer's disease
- History of seizures
- Hepatic or renal impairment
- Known cardiovascular or cerebrovascular disease
- Conditions that cause hypotension (dehydration, hypovolemia, treatment with antihypertensive medication)
- Pregnancy (weigh benefits of the drug against potential risk to fetus)
- Children and adolescents (safety and effectiveness have not been established)

Adverse Reactions and Side Effects

- Headache
- Nausea and vomiting
- Constipation
- Anxiety, restlessness
- Insomnia
- Lightheadedness
- Somnolence
- Weight gain, weight loss
- Blurred vision
- Increased salivation
- Extrapyramidal symptoms

Interactions

- Decreased plasma levels of aripiprazole with **carbamazepine** and **other CYP3A4 inducers**.

Continued on the following page

- Increased plasma levels and potential for aripiprazole toxicity with **CYP2D6 inhibitors**, such as **quinidine**, **fluoxetine**, and **paroxetine**.
- Decreased metabolism and increased effects of aripiprazole with **ketoconazole** or **other CYP3A4 inhibitors**.
- Additive hypotensive effects with **antihypertensive drugs**.
- Additive CNS effects with **alcohol**.

Route and Dosage

- **Schizophrenia: Adults**—PO: Initial and target dose: 10 or 15 mg/d as a single dose. Doses up to 30 mg/d have been used but were not more effective than 10 or 15 mg/d. Dose increases should not be made before 2 weeks. Maximum daily dose: 30 mg.

■ CHEMICAL CLASS: DIHYDROINDOLONE

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Molindone (Moban)	C/10–20 h	Psychotic disorders	Tabs: 5, 10, 25, 50, 100 Concentrate: 20/mL

Action

The exact mechanism of action is not fully understood. It is thought that molindone exerts its effect on the ascending reticular activating system.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Comatose or severely CNS-depressed patients
- Children younger than 12 years (safety has not been established)
- Lactation
- Sensitivity to sulfites (contained in some preparations)

Use cautiously in:

- Patients with history of seizures
- Respiratory, renal, hepatic, thyroid, or cardiovascular disorders
- Elderly or debilitated patients
- Pregnancy

Adverse Reactions and Side Effects

Refer to this section under Phenothiazines.

Interactions

- Additive CNS effects with **CNS depressants**.
- Additive anticholinergic effects with drugs that have anticholinergic properties.
- Decreased absorption of **phenytoin** and **tetracyclines** with molindone.

Route and Dosage

- **Psychotic disorders: Adults**—PO: Initial dose: 50 to 75 mg/d. May increase to 100 mg in 3 or 4 days, up to 225 mg/d if required.
- **Maintenance therapy: Adults**—*Mild symptoms*: PO: 5 to 15 mg 3 or 4 times/day.
- **Moderate symptoms**: PO: 10 to 25 mg 3 or 4 times/day.
- **Severe symptoms**: PO: Up to 225 mg/d may be required.

■ CHEMICAL CLASS: THIENOBENZODIAZEPINE

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Thiothixene (Navane)	C/34 h	Psychotic disorders	Caps: 1, 2, 5, 10, 20 Concentrate: 5/mL Injection: 2/mL; 5/mL

Continued on the following page

Action

- Efficacy in schizophrenia is mediated through a combination of dopamine and 5HT₂ antagonism.
- Also shows antagonism for muscarinic, histaminic, and adrenergic receptors.
- The mechanism of action of olanzapine in the treatment of bipolar mania is unknown.

Contraindications and Precautions**Contraindicated in:**

- Hypersensitivity
- Children (safety has not been established)
- Lactation

Use cautiously in:

- Patients with hepatic or cardiovascular disease
- Patients with history of seizures
- Comatose or other CNS-depressed patients
- Patients at risk for aspiration pneumonia
- Prostatic hypertrophy
- Narrow-angle glaucoma
- History of paralytic ileus
- Pregnancy
- Elderly and debilitated patients
- Conditions that may contribute to elevation in core body temperature

Adverse Reactions and Side Effects

- Asthenia
- Somnolence
- Headache
- Fever
- Dizziness
- Dry mouth
- Constipation
- Weight gain
- Orthostatic hypotension
- Tachycardia
- Extrapyramidal symptoms (high-dose-dependent)

Interactions

- Antagonizes the effects of **levodopa** and **dopamine agonists**.
- Additive CNS depression with **alcohol** and other **CNS depressants**.
- Possible additive hypotensive effects with **antihypertensive agents**.
- Decreased olanzapine effects with **carbamazepine**, **omeprazole**, and **rifampin**.
- Decreased clearance of olanzapine with **fluvoxamine**.
- Concomitant use with **alcohol** or **diazepam** potentiates orthostatic hypotension.

Route and Dosage

- **Schizophrenia: Adults**—PO: Initial dose: 5 to 10 mg/d. May increase at weekly intervals by 5 mg/d (not to exceed 20 mg/d).
- **Bipolar mania: Adults**—PO: Initial dose: 10 to 15 mg/d. May increase every 24 hours by 5 mg/d (not to exceed 20 mg/d).

■ CHEMICAL CLASS: THIOXANTHENE**Example****Action**

- Blocks postsynaptic dopamine receptors in the hypothalamus, limbic system, and reticular formation.
- Demonstrates varying affinity for cholinergic, α₁-adrenergic, and histaminic receptors.

Contraindications and Precautions**Contraindicated in:**

- Hypersensitivity
- Comatose or severely CNS-depressed patients
- Bone marrow depression or blood dyscrasias
- Parkinson's disease
- Severe hypotension or hypertension
- Children younger than 12 years
- Pregnancy and lactation (safety has not been established)

Use cautiously in:

- Patients with history of seizures

Continued on the following page

- Respiratory, renal, hepatic, thyroid, and cardiovascular disorders
- Elderly or debilitated patients
- Patients exposed to extreme environmental heat
- Patients taking atropine or atropine-like drugs

Adverse Reactions and Side Effects

Refer to this section under Phenothiazines.

Interactions

- Additive CNS depression with **alcohol** and other **CNS depressants**.
- Additive anticholinergic effects with other drugs that have anticholinergic properties.
- Possible additive hypotension with **antihypertensive agents**.

Route and Dosage

- **Psychotic Disorders: Adults**—PO: *Mild conditions*: Initial dose: 2 mg 3 times/day. May increase to 15 mg. *Severe conditions*: Initial dose: 5 mg 2 times/day. Optimal dose is 20 to 30 mg/d. May increase gradually, not to exceed 60 mg/d.
- *In cases in which rapid control is required or oral administration is not indicated: Adults*—IM: Initial dose: 4 mg 2 to 4 times/day. Adjust dose according to patient's response. Maximum daily dose: 30 mg. Switch to oral form as soon as possible.

■ CHEMICAL CLASS: BENZOTHAZOLYLPIPERAZINE

Example

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Ziprasidone (Geodon)	C/7 h	Schizophrenia	Caps: 20, 40, 60, 80 Injection: 20/mL

Action

- Efficacy in schizophrenia is mediated through a combination of dopamine type 2 (D₂) and serotonin type 2 (5HT₂) antagonism.
- May also exhibit antagonism of histamine H₁ receptors and α₁-adrenergic receptors.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- History of QT prolongation or cardiac arrhythmias
- Recent myocardial infarction
- Uncompensated heart failure
- Concurrent use with other drugs that prolong the QT interval
- Hypokalemia or hypomagnesemia
- Lactation

Use cautiously in:

- Concurrent diuretic therapy or diarrhea (may increase the risk of hypotension, hypokalemia, or hypomagnesemia)
- Hepatic or renal insufficiency
- History of cardiovascular or cerebrovascular disease
- History of seizures
- Hypotension, concurrent antihypertensive therapy, dehydration, or hypovolemia (may increase the risk of orthostatic hypotension)
- Patients with Alzheimer's disease or advanced age or others who may be at risk for aspiration pneumonia
- Pregnancy and children (safety has not been established)

Adverse Reactions and Side Effects

- Somnolence
- Headache
- Nausea
- Dyspepsia
- Constipation
- Dizziness
- Diarrhea

Continued on the following page

- Restlessness
- Extrapyramidal symptoms
- Prolonged QT interval
- Orthostatic hypotension
- Rash

Interactions

- Additive effects with drugs that prolong QT interval. Do not administer with **dofetilide, sotalol, quinidine, other class Ia and III antiarrhythmics, mesoridazine, thioridazine, chlorpromazine, droperidol, pimozide, sparfloxacin, gatifloxacin, moxifloxacin, halofantrine, mefloquine, pentamidine, arsenic trioxide, levomethadyl acetate, dolasetron mesylate, probucol, or tacrolimus.**
- Additive CNS effects with **alcohol** or other **CNS depressants.**
- Additive hypotensive effects with **antihypertensive agents.**
- May antagonize the effects of **levodopa** and **dopamine agonists.**
- Decreased blood levels of ziprasidone with **carbamazepine.**
- Increased blood levels of ziprasidone with **ketoconazole.**

Route and Dosage

- **Schizophrenia: Adults**—PO: Initial dose: 20 mg 2 times/day. May increase dose by intervals of at least 2 days up to a dose of 80 mg 2 times/day.

■ NURSING DIAGNOSES RELATED TO ALL ANTIPSYCHOTIC AGENTS

- Risk for other-directed violence related to panic anxiety and mistrust of others.
- Risk for injury related to medication side effects of sedation, photosensitivity, reduction of seizure threshold, agranulocytosis, extrapyramidal symptoms, tardive dyskinesia, neuroleptic malignant syndrome, and/or QT prolongation.
- Risk for activity intolerance related to medication side effects of sedation, blurred vision, and/or weakness.
- Noncompliance with medication regimen related to suspiciousness and mistrust of others.

■ NURSING IMPLICATIONS FOR ANTIPSYCHOTIC AGENTS

The plan of care should include monitoring for the following side effects from antipsychotic medications. Nursing implications related to each side effect are designated by an asterisk (*).

1. Anticholinergic Effects
 - a. Dry mouth
 - *Provide client with sugarless candy or gum, ice, and frequent sips of water.
 - *Ensure that client practices strict oral hygiene.
 - b. Blurred vision
 - *Explain that this symptom will most likely subside after a few weeks.
 - *Advise client not to drive a car until vision clears.
 - *Clear small items from pathway to prevent falls.
 - c. Constipation
 - *Order foods high in fiber; encourage increase in physical activity and fluid intake if not contraindicated.
 - d. Urinary retention
 - *Instruct client to report any difficulty urinating; monitor intake and output.
2. Nausea; Gastrointestinal (GI) Upset
 - *Tablets or capsules may be administered with food to minimize GI upset.
 - *Concentrates may be diluted and administered with fruit juice or other liquid; they should be mixed immediately before administration.
3. Skin Rash
 - *Report appearance of any rash on skin to physician.
 - *Avoid spilling any of the liquid concentrate on skin; contact dermatitis can occur.
4. Sedation
 - *Discuss with physician possibility of administering drug at bedtime.
 - *Discuss with physician possible decrease in dose or order for less sedating drug.
 - *Instruct client not to drive or operate dangerous equipment while experiencing sedation.

Continued on the following page

5. Orthostatic Hypotension
 - *Instruct client to rise slowly from a lying or sitting position; monitor blood pressure (lying and standing) each shift; document and report significant changes.
6. Photosensitivity
 - *Ensure that client wears protective sunscreens, clothing, and sunglasses while spending time outdoors.
7. Hormonal Effects
 - a. Decreased libido, retrograde ejaculation, gynecomastia (men)
 - *Provide explanation of the effects and reassurance of reversibility. If necessary, discuss with physician possibility of ordering alternate medication.
 - b. Amenorrhea (women)
 - *Offer reassurance of reversibility; instruct client to continue use of contraception because amenorrhea does not indicate cessation of ovulation.
 - c. Weight gain
 - *Weigh client every other day; order calorie-controlled diet; provide opportunity for physical exercise; provide diet and exercise instruction.
8. Reduction of Seizure Threshold
 - *Closely observe client with history of seizures.
 - *NOTE: This is particularly important with clients taking clozapine (Clozaril). Reportedly, seizures affect 1 to 5 percent of individuals who take this drug, depending on the dose.
9. Agranulocytosis
 - *Potentially very serious side effect, but relatively rare with most of the antipsychotic drugs. It usually occurs within the first 3 months of treatment. Observe for symptoms of sore throat, fever, and malaise. A complete blood count should be monitored if these symptoms appear.
 - *EXCEPTION: With clozapine (Clozaril), agranulocytosis occurs in 1.2 percent of all clients taking the drug (Schatzberg, Cole, & DeBattista, 2003). It is a potentially fatal blood disorder in which the client's WBC count can drop to extremely low levels. Individuals receiving clozapine therapy are required to have blood levels drawn weekly for the first 6 months of therapy, followed by biweekly monitoring for patients with acceptable WBC counts. If the WBC count falls below 3000 mm³ or the granulocyte count falls below 1500 mm³, clozapine therapy is discontinued. The disorder is reversible if discovered in the early stages. However, this additional required technology of weekly blood tests has made this drug cost-prohibitive for some people.
10. Salivation (with clozapine)
 - *A significant number of clients receiving clozapine (Clozaril) therapy experience extreme salivation. Offer support to client, as this may be an embarrassing situation. It may even be a safety issue (e.g., risk of aspiration) if the problem is very severe.
11. Extrapyramidal Symptoms
 - *Observe for symptoms and report; administer antiparkinsonian drugs as ordered.
 - a. Pseudoparkinsonism (tremor, shuffling gait, drooling, rigidity).
 - *Symptoms may appear 1 to 5 days following initiation of antipsychotic medication; occurs most often in women, the elderly, and dehydrated clients.
 - b. Akinesia (muscular weakness).
 - *Same as pseudoparkinsonism.
 - c. Akathisia (continuous restlessness and fidgeting).
 - *This occurs most frequently in women; symptoms may occur 50 to 60 days following initiation of therapy.
 - d. Dystonia (involuntary muscular movements [spasms] of face, arms, legs, and neck).
 - *This occurs most often in men and in clients younger than 25 years.
 - e. Oculogyric crisis (uncontrolled rolling back of the eyes).
 - *This may appear as part of the syndrome described as dystonia. It may be mistaken for seizure activity. Dystonia and oculogyric crisis should be treated as emergency situations. The physician should be contacted, and intravenous benztropine mesylate (Cogentin) is commonly administered. Stay with client, and offer reassurance and support during this frightening time.
12. Tardive Dyskinesia (bizarre facial and tongue movements, stiff neck, and difficulty swallowing).
 - a. All clients receiving long-term (months or years) antipsychotic therapy are at risk.
 - *Symptoms are potentially irreversible.

Continued on the following page

*Drug should be withdrawn at first sign, which is usually vermiciform movements of the tongue; prompt action may prevent irreversibility.

13. Neuroleptic Malignant Syndrome (NMS)

a. NMS is a rare but potentially fatal complication of treatment with neuroleptic drugs. Routine assessments should include temperature and observation for parkinsonian symptoms. Onset can occur within hours or even years after drug initiation, and progression is rapid over the following 24 to 72 hours.

*Symptoms include severe parkinsonian muscle rigidity, hyperpyrexia up to 107° F, tachycardia, tachypnea, fluctuations in blood pressure, diaphoresis, and rapid deterioration of mental status to stupor and coma.

*Discontinue neuroleptic medication immediately.

*Monitor vital signs, degree of muscle rigidity, intake and output, level of consciousness.

*The physician may order bromocriptine (Parlodel) or dantrolene (Dantrium) to counteract the effects of NMS.

14. ECG Changes

a. ECG changes, including prolongation of the QT interval, are possible with most of the antipsychotics. This is particularly true with ziprasidone (Geodon). Caution is advised in prescribing this medication to individuals with history of arrhythmias. Conditions that produce hypokalemia and/or hypomagnesemia, such as diuretic therapy or diarrhea, should be taken into consideration when prescribing. Routine ECG should be taken before initiation of therapy and periodically during therapy.

*Monitor vital signs every shift.

*Observe for symptoms of dizziness, palpitations, syncope, or weakness.

■ CLIENT/FAMILY EDUCATION RELATED TO ALL ANTIPSYCHOTICS

- Use caution when driving or operating dangerous machinery. Drowsiness and dizziness can occur.
- Do not stop taking the drug abruptly after long-term use. To do so might produce withdrawal symptoms, such as nausea, vomiting, gastritis, headache, tachycardia, insomnia, or tremulousness.
- Use sunscreens, and wear protective clothing when spending time

outdoors. Skin is more susceptible to sunburn, which can occur as quickly as 30 minutes.

- Report weekly (if receiving clozapine therapy) to have blood levels drawn and to obtain a weekly supply of the drug.
- Report occurrence of any of the following symptoms to the physician immediately: sore throat, fever, malaise, unusual bleeding, easy bruising, persistent nausea and vomiting, severe headache, rapid heart rate, fainting, difficulty urinating, muscle twitching, tremors, darkly colored urine, pale stools, yellow skin or eyes, muscular incoordination, and skin rash.
- Rise slowly from a sitting or lying position to prevent a sudden drop in blood pressure.
- If experiencing a problem with dry mouth, take frequent sips of water, chew sugarless gum, or suck on hard candy. Good oral care (frequent brushing, flossing) is very important.
- Consult the physician regarding smoking while taking this medication. Smoking increases the metabolism of some antipsychotics, possibly requiring adjustment in dosage to achieve therapeutic effect.
- Dress warmly in cold weather, and avoid extended exposure to very high or low temperatures. Body temperature is harder to maintain with this medication.
- Do not drink alcohol while on antipsychotic therapy. These drugs potentiate each other's effects.
- Do not consume other medications (including over-the-counter products) without physician's approval. Many medications contain substances that interact with antipsychotics in a way that may be harmful.
- Be aware of possible risks of taking antipsychotic medication during pregnancy. Safe use during pregnancy and lactation has not been established. Antipsychotics are thought to readily cross the placental barrier; if so, a fetus could experience adverse effects of the drug. Client should inform the physician immediately if pregnancy occurs, is suspected, or is planned.
- Be aware of side effects of antipsychotic drugs. Refer to written materials furnished by health-care providers for safe self-administration.

Continued on the following page

- Continue to take medication, even if feeling well and as though it is not needed. Symptoms may return if medication is discontinued.
- Carry card or other identification at all times describing medications being taken.

INTERNET REFERENCES

- <http://www.rxlist.com>
- <http://www.nimh.nih.gov/publicat/medicate.cfm>
- <http://www.fadavis.com/townsend>

■ CHEMICAL CLASS: ANTICHOLINERGICS

Examples

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Benzotropine (Cogentin)	C/Unknown	Parkinsonism Drug-induced extrapyramidal symptoms	Tabs: 0.5, 1, 2 Injection: 1/mL
Biperiden (Akineton)	C/18.4–24.3 h	Parkinsonism Drug-induced extrapyramidal symptoms	Tabs: 2
Procyclidine (Kemadrin)	C/11.5–12.5 h	Parkinsonism Drug-induced extrapyramidal symptoms	Tabs: 5
Trihexyphenidyl (Artane)	C/5.6–10.2 h	Parkinsonism Drug-induced extrapyramidal symptoms	Tabs: 2, 5 Elixir: 2/5 mL
Diphenhydramine (Benadryl)	B/4–15 h	Parkinsonism Drug-induced extrapyramidal symptoms Motion sickness Allergy reactions Nighttime sleep aid Cough suppressant	Tabs/Caps: 25, 50 Elixir/Syrup: 12.5/5 mL Injection: 50/mL

Action

- Block acetylcholine receptors to diminish excess cholinergic effects. May also inhibit the reuptake and storage of dopamine at central dopamine receptors, thereby prolonging the action of dopamine.
- Diphenhydramine also blocks histamine release by competing with histamine for H₁ receptor sites. Decreased allergic response and somnolence are affected by diminished histamine activity.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Narrow-angle glaucoma
- Pyloric or duodenal obstruction
- Peptic ulcers
- Prostatic hypertrophy
- Megaesophagus
- Megacolon
- Myasthenia gravis
- Lactation
- Children (*except* diphenhydramine)

Use cautiously in:

- Tachycardia
- Cardiac arrhythmias
- Hypertension
- Hypotension
- Tendency to urinary retention
- Clients exposed to high environmental temperatures
- Pregnancy

Adverse Reactions and Side Effects

- Dry mouth
- Blurred vision
- Constipation
- Paralytic ileus
- Urinary retention
- Tachycardia
- Agitation, nervousness
- Decreased sweating
- Elevated temperature
- Nausea/vomiting
- Sedation
- Dizziness
- Exacerbation of psychoses
- Orthostatic hypotension

Continued on the following page

Interactions

- **Diphenhydramine:** Additive sedative effects with central nervous system (CNS) **depressants**.
- Additive anticholinergic effects with other drugs that have anticholinergic properties.
- Anticholinergic drugs counteract the cholinergic effects of **bethanechol**.
- Possible increased **digoxin** levels with anticholinergics.
- Concomitant use of anticholinergics with **haloperidol** may result in worsening of psychotic symptoms, decreased haloperidol serum levels, and development of tardive dyskinesia.
- Possible decreased efficacy of **phenothiazines** and increased incidence of anticholinergic side effects with concomitant use.

Route and Dosage

Benztropine (Cogentin)

- **Parkinsonism: Adults**—PO: 1 to 2 mg/d in 1 to 2 divided doses (range 0.5 to 6 mg/d).
- **Drug-induced extrapyramidal symptoms: Adults**—PO: 1 to 4 mg given once or twice daily.
- **Acute dystonic reactions: Adults**—IM, IV: 1 to 2 mg, then 1 to 2 mg PO twice daily.

Biperiden (Akineton)

- **Parkinsonism: Adults**—PO: 2 mg 3 or 4 times/day, not to exceed 16 mg/24 h.
- **Drug-induced extrapyramidal symptoms: Adults**—PO: 2 mg 1 to 3 times/day.

Procyclidine (Kemadrin)

- **Parkinsonism: Adults**—PO: Initial dose: 2.5 mg 3 times/day after meals. May increase slowly to 5 mg 3 times/day and, if necessary, at bedtime.
- **Drug-induced extrapyramidal symptoms: Adults**—PO: Initial dose: 2.5 mg 3 times/day. Increase in daily increments of 2.5 mg to maintenance dose of 10 to 20 mg daily.

Trihexyphenidyl (Artane)

- **Parkinsonism: Adults**—PO: Initial dose: 1 to 2 mg the 1st day; increase by 2 mg increments at 3- to 5-day intervals up to a daily dose of 6 to 10 mg in 3 divided doses taken at mealtimes.

- **Drug-induced extrapyramidal symptoms: Adults**—PO: Initial dose: 1 mg. Repeat dose every few hours until symptoms are controlled. Maintenance or prophylactic use: 5 to 15 mg/d.

Diphenhydramine (Benadryl)

- **Parkinsonism and drug-induced extrapyramidal symptoms/ Motion sickness/Allergy reactions: Adults**—PO: 25 to 50 mg 3 or 4 times/day. IM/IV: 10 to 50 mg. Maximum daily dosage: 400 mg. **Children >10 kg**—PO: 12.5 to 25 mg 3 or 4 times/day or 5 mg/kg/d, not to exceed 300 mg/d. IM/IV: 5 mg/kg/d divided into 4 doses, not to exceed 300 mg/d.
- **Nighttime sleep aid: Adults and children ≥12 years**—50 mg at bedtime.
- **Cough suppressant (syrup only): Adults**—PO: 25 mg every 4 hours, not to exceed 100 mg in 24 hours. **Children 6 to 12 years**—PO: 12.5 mg every 4 hours, not to exceed 50 mg in 24 hours. **Children 2 to 6 years**—PO: 6.25 mg every 4 hours, not to exceed 25 mg in 24 hours.

■ CHEMICAL CLASS: DOPAMINERGIC AGONISTS

Examples

Generic (Trade) Name	Pregnancy Category/ Half-life	Indications	Available Forms (mg)
Amantadine (Symmetrel)	C/10–25 h	Parkinsonism Drug induced extrapyramidal symptoms Prophylaxis and treatment of influenza A viral infection	Caps: 100 Syrup: 50/5mL
Bromocriptine (Parlodel)	B/6–8 h	Parkinsonism Hyperprolactinemia-associated dysfunctions Acromegaly Neuroleptic malignant syndrome	Tab: 2.5 Caps: 5

Continued on the following page

Action

Increase the content of dopamine in the brain directly by stimulating dopamine receptors, by releasing intact dopamine stores, or by blocking neuronal dopamine reuptake.

Contraindications and Precautions

Contraindicated in:

Amantadine:

- Hypersensitivity to the drug
- Safe use in pregnancy, lactation, and in children younger than 1 year has not been established.
- Angle-closure glaucoma

Bromocriptine:

- Hypersensitivity to this drug, other ergot alkaloids, or sulfites (contained in some preparations)
- Clients with severe peripheral vascular disease
- Pregnancy and lactation; children younger than 15 years (safety has not been established)

Use cautiously in:

- Hepatic or renal impairment
- Uncontrolled psychiatric disturbances
- History of congestive heart failure, myocardial infarction, or ventricular arrhythmia
- Elderly or debilitated clients
- Orthostatic hypotension

Amantadine:

- Clients with a history of seizures
- Concurrent use of CNS stimulants

Bromocriptine:

- Clients with acromegaly

Adverse Reactions and Side Effects

Refer to this section under Anticholinergics.

Interactions

- Additive anticholinergic effects with other drugs that have anticholinergic properties.

- Increased CNS stimulation with CNS stimulants.
- Increased plasma levels of amantadine with **trimethoprim-sulfamethoxazole, quinine, or quinidine.**
- Increased levels of bromocriptine with **erythromycin.**
- Concurrent use with **phenothiazines, haloperidol, methyldopa, reserpine, and tricyclic antidepressants** reduces bromocriptine's ability to decrease prolactin levels.
- Additive CNS effects with **alcohol.**

Route and Dosage

Amantadine (Symmetrel)

- **Parkinsonism: Adults**—PO: 100 mg 1 to 2 times/day (up to 400 mg/d).
- **Drug-induced extrapyramidal symptoms: Adults**—PO: 100 mg 2 times/day (up to 300 mg/d in divided doses).
- **Influenza A viral infection: Adults and children >12 years**—PO: 200 mg/d as a single dose or 100 mg 2 times/day (not >100 mg/d in geriatric clients). **Children 9 to 12 years**—PO: 100 mg twice daily. **Children 1 to 9 years**—PO: 4.4 to 8.8 mg/kg/d given once daily or divided twice daily, not to exceed 150 mg/d.

Bromocriptine (Parlodel)

- **Parkinsonism: Adults**— PO: Initial dose: 1.25 mg 2 times/day with meals. May increase dose every 2 to 4 weeks by 2.5 mg/d with meals. Usual range is 10 to 40 mg/d.
- **Hyperprolactinemia-associated dysfunctions: Adults**—PO: Initial dose: 0.5 to 2.5 mg/d with meals. May increase by 2.5 mg every 3 to 7 days. Usual therapeutic dosage range: 2.5 to 15 mg/d.
- **Acromegaly: Adults**—PO: Initial dose: 1.25 to 2.5 mg for 3 days (with food) at bedtime. May increase by 1.25 to 2.5 mg/d every 3 to 7 days. Usual therapeutic dosage range: 20 to 30 mg/d. Maximum dosage: 100 mg/d.
- **Neuroleptic malignant syndrome: Adults**—PO: 2.5 to 5 mg 3 times/day.

Continued on the following page

■ NURSING DIAGNOSES RELATED TO ANTIPARKINSONIAN AGENTS

1. Risk for injury related to symptoms of Parkinson's disease or drug-induced EPS.
2. Hyperthermia related to anticholinergic effect of decreased sweating.
3. Activity intolerance related to side effects of drowsiness, dizziness, ataxia, weakness, or confusion.
4. Deficient knowledge related to medication regimen.

■ NURSING IMPLICATIONS FOR ANTIPARKINSONIAN AGENTS

The plan of care should include monitoring for the following side effects from antiparkinsonian medications. Nursing implications related to each side effect are designated by an asterisk (*).

1. Anticholinergic Effects. These side effects are identical to those produced by antipsychotic drugs. Taking both medications compounds these effects. For this reason, the physician may elect to prescribe an antiparkinsonian agent only at the onset of EPS rather than as routine adjunctive therapy.
 - a. Dry mouth
 - *Offer sugarless candy or gum, ice, frequent sips of water.
 - *Ensure that client practices strict oral hygiene.
 - b. Blurred vision
 - *Explain that symptom will most likely subside after a few weeks.
 - *Offer to assist with tasks requiring visual acuity.
 - c. Constipation
 - *Order foods high in fiber; encourage increase in physical activity and fluid intake, if not contraindicated.
 - d. Paralytic ileus
 - *A rare but potentially very serious side effect of anticholinergic drugs. Monitor for abdominal distention, absent bowel sounds, nausea, vomiting, and epigastric pain.
 - *Report any of these symptoms to physician immediately.

- e. Urinary retention
 - *Instruct client to report any difficulty urinating; monitor intake and output.
- f. Tachycardia, decreased sweating, elevated temperature
 - *Assess vital signs each shift; document and report significant changes to physician.
 - *Ensure that client remains in cool environment, because the body is unable to cool itself naturally with this medication.
2. Nausea, Gastrointestinal (GI) Upset
 - *May administer tablets or capsules with food to minimize GI upset.
3. Sedation, Drowsiness, Dizziness
 - *Discuss with physician possibility of administering drug at bedtime.
 - *Discuss with physician possible decrease in dosage or ordering less sedating drug.
 - *Instruct client not to drive or use dangerous equipment while experiencing sedation or dizziness.
4. Exacerbation of Psychoses
 - *Assess for signs of loss of contact with reality.
 - *Intervene during a hallucination; talk about real people and real events; reorient client to reality.
 - *Stay with client during period of agitation and delirium; remain calm, and reassure client of his or her safety.
 - *Discuss with physician possible decrease in dosage or change in medication.
5. Orthostatic Hypotension
 - *Instruct client to rise slowly from a lying or sitting position; monitor blood pressure (lying and standing) each shift; document and report significant changes.

■ CLIENT/FAMILY EDUCATION RELATED TO ALL ANTIPARKINSONIAN AGENTS

- Take the medication with food if GI upset occurs.
- Use caution when driving or operating dangerous machinery. Drowsiness and dizziness can occur.
- Do not stop taking the drug abruptly. To do so might produce unpleasant withdrawal symptoms.

Continued on the following page

- Report occurrence of any of the following symptoms to the physician immediately: pain or tenderness in area in front of ear; extreme dryness of mouth; difficulty urinating; abdominal pain; constipation; fast, pounding heart beat; rash; visual disturbances; mental changes.
- Rise slowly from a sitting or lying position to prevent a sudden drop in blood pressure.
- Stay inside in air-conditioned room when weather is very hot. Perspiration is decreased with antiparkinsonian agents, and the body cannot cool itself as well. There is greater susceptibility to heat stroke. Inform physician if air-conditioned housing is not available.
- Take frequent sips of water, chew sugarless gum, or suck on hard candy if dry mouth is a problem. Good oral care (frequent brushing, flossing) is very important.
- Do not drink alcohol while on antiparkinsonian therapy.
- Do not consume other medications (including over-the-counter products) without physician's approval. Many medications contain substances that interact with antiparkinsonian agents in a way that may be harmful.

- Be aware of possible risks due to taking antiparkinsonian agents during pregnancy. Safe use during pregnancy and lactation has not been fully established. It is thought that antiparkinsonian agents readily cross the placental barrier; if so, fetus could experience adverse effects of the drug. Inform physician immediately if pregnancy occurs, is suspected, or is planned.
- Be aware of side effects of antiparkinsonian agents. Refer to written materials furnished by health-care providers for safe self-administration.
- Continue to take medication, even if feeling well and as though it is not needed. Symptoms may return if medication is discontinued.
- Carry card or other identification at all times describing medications being taken.

INTERNET REFERENCES

- <http://www.rxlist.com/>
- <http://www.nimh.nih.gov/publicat/medicate.cfm>
- <http://www.fadavis.com/townsend>

■ CHEMICAL CLASS: BENZODIAZEPINES

Examples

Generic (Trade) Name	Controlled/Pregnancy Category	Half-life	Indications	Available Forms (mg)
Estazolam (ProSom)	CIV/X	8–28 h	Insomnia	Tabs: 1, 2
Flurazepam (Dalmane)	CIV/NR	2–3 (active metabolite, 47–100) h	Insomnia	Caps: 15, 30
Quazepam (Doral)	CIV/X	41 (active metabolite, 47–100) h	Insomnia	Tabs: 7.5, 15
Temazepam (Restoril)	CIV/X	9–15 h	Insomnia	Caps: 7.5, 15, 30
Triazolam (Halcion)	CIV/X	1.5–5.5 h	Insomnia	Tabs: 0.125, 0.25

Action

- Potentiate gamma aminobutyric acid (GABA) neuronal inhibition.
- The sedative effects involve GABA receptors in the limbic, neocortical, and mesencephalic reticular systems.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity to these or other benzodiazepines
- Pregnancy and lactation
- **Quazepam:** established or suspected sleep apnea
- **Triazolam:** concurrent use with ketoconazole, itraconazole, or nefazodone, medications that impair the metabolism of triazolam by cytochrome P450 3A (CYP3A)
- **Flurazepam:** Children younger than 15 years
- **Estazolam, quazepam, temazepam, triazolam:** Children younger than 18 years

Use cautiously in:

- Elderly and debilitated patients
- Hepatic or renal dysfunction
- Patients with history of drug abuse and dependence
- Depressed or suicidal patients
- Respiratory depression and sleep apnea

Adverse Reactions and Side Effects

- Drowsiness
- Headache
- Confusion
- Lethargy
- Tolerance
- Physical and psychological dependence
- Potentiates the effects of other central nervous system (CNS) depressants
- May aggravate symptoms in depressed persons
- Palpitations; tachycardia; hypotension
- Paradoxical excitement
- Dry mouth
- Nausea and vomiting
- Blood dyscrasias

Interactions

- Additive CNS depression with **alcohol** and **other CNS depressants**.
- Decreased clearance and increased effects of benzodiazepines with **cimetidine, oral contraceptives, disulfiram, and isoniazid**.
- More rapid onset or more prolonged benzodiazepine effect with **probenecid**.
- Increased clearance and decreased half-life of benzodiazepines with **rifampin**.
- Increased benzodiazepine clearance with **cigarette smoking**.
- Antagonism of benzodiazepines with **theophylline**.
- Increased bioavailability of triazolam with **macrolides**.
- Benzodiazepines may increase serum levels of **digoxin** and **phenytoin** and increase risk of toxicity.

Continued on the following page

Route and Dosage

Estazolam (ProSom)

- **Insomnia: Adults**—PO: 1 to 2 mg at bedtime. *Healthy elderly patients*—PO: 1 mg at bedtime. Increase with caution. *Debilitated or small elderly patients*—PO: 0.5 mg at bedtime.

Flurazepam (Dalmane)

- **Insomnia: Adults**—PO: 15 to 30 mg at bedtime. *Elderly or debilitated patients*—PO: 15 mg at bedtime.

Quazepam (Doral)

- **Insomnia: Adults**—PO: 7.5 to 15 mg at bedtime.

Temazepam (Restoril)

- **Insomnia: Adults**—PO: 15 to 30 mg at bedtime. *Elderly or debilitated patients*—PO: 15 mg at bedtime.

Triazolam (Halcion)

- **Insomnia: Adults**—PO: 0.125 to 0.5 mg at bedtime. *Elderly or debilitated patients*—PO: 0.125 to 0.25 mg at bedtime.

■ CHEMICAL CLASS: BARBITURATES

Examples

Generic (Trade) Name	Controlled/Pregnancy Category	Half-life	Indications	Available Forms (mg)
Amobarbital (Amytal)	CII/D	16–40 h	Sedation Insomnia	Injection: powder, 250/vial, 500/vial
Butobarbital (Butisol)	CIII/D	66–140 h	Sedation Insomnia	Tabs: 15, 30, 50, 100 Elixir: 30/5 mL
Mephobarbital (Mebaral)	CIV/D	11–67 h	Sedation Epilepsy	Tabs: 32, 50, 100
Pentobarbital (Nembutal)	CII/D	15–50 h	Sedation Insomnia	Caps: 30, 100 Injection: 50/mL

Generic (Trade) Name	Controlled/Pregnancy Category	Half-life	Indications	Available Forms (mg)
Phenobarbital (Luminal)	CIV/D	53–118 h	Sedation Insomnia Epilepsy	Tabs: 15, 16, 30, 60, 90, 100 Caps: 16 Elixir: 15/5 mL; 20/5 mL Injection (mg/mL): 30, 60, 65, 130
Secobarbital (Seconal)	CII/D	15–40 h	Sedation Insomnia	Caps: 100

Action

- Depress the sensory cortex, decrease motor activity, and alter cerebellar function.
- All levels of CNS depression can occur, from mild sedation to hypnosis to coma to death.
- Can induce anesthesia in sufficiently high therapeutic doses.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity to barbiturates
- Severe hepatic, renal, cardiac, or respiratory disease
- Individuals with history of drug abuse or dependence
- Porphyria
- Intra-arterial or subcutaneous administration

Use cautiously in:

- Elderly and debilitated patients
- Patients with hepatic, renal, cardiac, or respiratory impairment
- Depressed or suicidal patients
- Children
- Pregnancy and lactation

Adverse Reactions and Side Effects

- Bradycardia
- Hypotension

Continued on the following page

Drug Classifications: *Sedative-Hypnotics (Cont'd)*

- Somnolence
- Agitation
- Confusion
- Nausea, vomiting
- Constipation
- Skin rashes
- Respiratory depression
- Physical and psychological dependence

Interactions

- Additive CNS depression with **alcohol** and **other CNS depressants**.
- Possible decreased effects from the following drugs with barbiturates: **chloramphenicol, anticoagulants, beta blockers, carbamazepine, clonazepam, oral contraceptives, corticosteroids, digitoxin, doxorubicin, doxycycline, felodipine, fenoprofen, griseofulvin, metronidazole, phenylbutazone, quinidine, theophylline, and verapamil**.
- Possible decreased effects of barbiturates with **chloramphenicol** and **rifampin**.
- Possible increased effects of barbiturates with **monoamine oxidase inhibitors** and **valproic acid**.
- Concomitant use with **methoxyflurane** may enhance renal toxicity.

Route and Dosage

Amobarbital (Amytal)

- **Sedation: Adults**—IM: 30 to 50 mg 2 or 3 times/day.
- **Insomnia: Adults**—IM: 65 to 200 mg.
- NOTE: Do not inject a volume >5 mL at any one site regardless of drug concentration. Tissue damage can occur.

Butabarbital (Butisol)

- **Daytime Sedation: Adults**—PO: 15 to 30 mg 3 or 4 times/day.
- **Insomnia: Adults**—PO: 50 to 100 mg at bedtime.
- **Preoperative sedation: Adults**—PO: 50 to 100 mg 60 to 90 minutes before surgery. **Children**—PO: 2 to 6 mg/kg; maximum 100 mg.

Mephobarbital (Mebaral)

- **Sedation: Adults**—PO: 32 to 100 mg 3 or 4 times/day. Optimum dose: 50 mg 3 or 4 times/day. **Children**—PO: 16 to 32 mg 3 or 4 times/day.
- **Epilepsy: Adults**—PO: 400 to 600 mg daily. **Children <5 years**—PO: 16 to 32 mg 3 or 4 times/day. **Children >5 years**—PO: 32 to 64 mg 3 or 4 times/day.

Pentobarbital (Nembutal)

- **Sedation: Adults**—PO: 20 mg 3 or 4 times/day. **Children**—PO: 2 to 6 mg/kg/d, depending on age, weight, and amount of sedation desired. Maximum dose: 100 mg.
- **Insomnia: Adults**—PO: 100 mg at bedtime. **Children**—PO: Base dose on age and weight. **Adults**—IM: Usual dose: 150 to 200 mg. **Children**—IM: 2 to 6 mg/kg as a single IM injection, not to exceed 100 mg. NOTE: Inject deeply into large muscle mass. Do not exceed a volume of 5 mL at any one site because of possible tissue irritation.

Phenobarbital (Luminal)

- **Sedation: Adults**—PO: 30 to 120 mg/d in 2 to 3 divided doses not to exceed 400 mg in 24 hours. IM or IV: 30 to 120 mg/d in 2 to 3 divided doses. **Children**—PO: 8 to 32 mg.
- **Preoperative sedation: Adults**—IM only: 100 to 200 mg 60 to 90 minutes before surgery. **Children**—IM or IV: 1 to 3 mg/kg.
- **Insomnia: Adults**—PO: 100 to 200 mg at bedtime. **Children**—PO: Determined by age and weight.
- **Epilepsy: Adults**—PO: 60 to 100 mg/d. **Children**—PO: 3 to 6 mg/kg/d.

Secobarbital (Seconal)

- **Preoperative sedation: Adults**—PO: 200 to 300 mg 1 to 2 hours before surgery.
- **Children**—PO: 2 to 6 mg/kg, not to exceed 100 mg.
- **Insomnia: Adults**—PO: 100 mg at bedtime.

Continued on the following page

■ CHEMICAL CLASS: MISCELLANEOUS

Examples

Generic (Trade) Name	Controlled/Pregnancy Category	Half-life	Indications	Available Forms (mg)
Chloral hydrate (Noctec)	CIV/C	7–10 h	Sedation Insomnia	Caps: 500 Syrup: 250/5 mL; 500/5 mL Suppositories: 324, 648
Zaleplon (Sonata)	CIV/C	1 h	Insomnia	Caps: 5, 10
Zolpidem (Ambien)	CIV/B	2–3 h	Insomnia	Tabs: 5, 10

Action

Zolpidem and Zaleplon

Bind to GABA receptors in the CNS. Appear to be selective for the ω_1 -receptor subtype.

Chloral Hydrate

- Action unknown. Produces a calming effect through depression of the CNS.
- Has generally been replaced by safer and more effective agents.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- In combination with other CNS depressants
- Pregnancy and lactation

Zolpidem, zaleplon:

- Children

Chloral hydrate

- Severe hepatic, renal, or cardiac impairment
- Esophagitis, gastritis, or peptic ulcer disease (oral form)

Use cautiously in:

- Elderly or debilitated patients
- Depressed or suicidal patients
- Patients with history of drug abuse or dependence
- Patients with hepatic, renal, or respiratory dysfunction

Adverse Reactions and Side Effects

- Headache
- Drowsiness
- Dizziness
- Amnesia
- Nausea
- Myalgia
- Paradoxical excitement
- Physical and/or psychological dependence

Chloral hydrate:

- Skin rash

Interactions

- Peak concentration levels are decreased and time-to-peak concentration is prolonged when zolpidem is taken with food and when zaleplon is taken following a high-fat meal.
- Additive CNS depression with **alcohol and other CNS depressants**.
- Reduced effectiveness of **hydantoins** with chloral hydrate.
- Increased effects of **oral anticoagulants** with chloral hydrate.
- Decreased effects of zaleplon with drugs that induce the CYP3A4 enzyme system, including **rifampin, phenytoin, carbamazepine, and phenobarbital**.
- **Cimetidine** decreases metabolism and increases effects of zaleplon.
- IV **furosemide** administered following a dose of chloral hydrate may result in sweating, hot flashes, tachycardia, hypertension, weakness, and nausea.

Continued on the following page

Route and Dosage

Chloral Hydrate

- **Sedation: Adults**—PO: 250 mg 3 times/day after meals. Maximum daily dose: 2 g. **Children**—PO: 25 mg/kg/d, not to exceed 500 mg per single dose. May be given in divided doses.
- **Insomnia: Adults**—PO: 500 mg to 1 g 15 to 30 minutes before bedtime. **Children**—PO: 50 mg/kg/d, up to 1 g per single dose. May be given in divided doses.

Zaleplon (Sonata)

- **Insomnia: Adults**—PO: 10 mg (range 5 to 20 mg) at bedtime. **Elderly and debilitated patients**—PO: 5 mg at bedtime, not to exceed 10 mg.

Zolpidem (Ambien)

- **Insomnia: Adults**—PO: 10 mg at bedtime. **Elderly and debilitated patients**—PO: Initial dose: 5 mg, not to exceed 10 mg.

■ NURSING DIAGNOSES RELATED TO ALL SEDATIVE-HYPNOTICS

1. Risk for injury related to abrupt withdrawal from long-term use or decreased mental alertness caused by residual sedation.
2. Disturbed sleep pattern related to situational crises, physical condition, or severe level of anxiety.
3. Risk for activity intolerance related to side effects of lethargy, drowsiness, and dizziness.
4. Risk for acute confusion related to action of the medication on the CNS.

■ NURSING IMPLICATIONS FOR SEDATIVE-HYPNOTICS

The nursing care plan should include monitoring for the following side effects from sedative-hypnotics. Nursing implications related to each side effect are designated by an asterisk (*):

1. Drowsiness, Confusion, Lethargy (most common side effects)
 - *Instruct client not to drive or operate dangerous machinery while taking the medication.

2. Tolerance, Physical and Psychological Dependence
 - *Instruct client to take the medication exactly as directed. Do not take more than the amount prescribed because of the habit-forming potential. Recommended for short-term use only. Abrupt withdrawal after long-term use may result in serious, even life-threatening, symptoms.
3. Potentiates the Effects of Other CNS Depressants
 - *Instruct client not to drink alcohol or take other medications that depress the CNS while taking this medication.
4. May Aggravate Symptoms in Depressed Persons
 - *Assess mood daily.
 - *Take necessary precautions for potential suicide.
5. Orthostatic Hypotension; Palpitations; Tachycardia
 - *Monitor lying and standing blood pressure and pulse every shift.
 - *Instruct client to arise slowly from a lying or sitting position.
 - *Monitor pulse rate and rhythm, and report any significant change to the physician.
6. Paradoxical Excitement
 - *Withhold drug, and notify the physician.
7. Dry Mouth
 - *Have client take frequent sips of water or ice chips, suck on hard candy, or chew sugarless gum.
8. Nausea and Vomiting
 - *Have client take drug with food or milk.
9. Blood Dyscrasias
 - *Symptoms of sore throat, fever, malaise, easy bruising, or unusual bleeding should be reported to the physician immediately.

■ CLIENT/FAMILY EDUCATION RELATED TO ALL SEDATIVE-HYPNOTICS

- Do not drive or operate dangerous machinery. Drowsiness and dizziness can occur.
- Do not stop taking the drug abruptly after prolonged use. Can produce serious withdrawal symptoms, such as depression, insomnia, anxiety, abdominal and muscle cramps, tremors, vomiting, sweating, convulsions, and delirium.

Continued on the following page

- Do not consume other CNS depressants (including alcohol).
- Do not take nonprescription medication without approval from physician.
- Rise slowly from the sitting or lying position to prevent a sudden drop in blood pressure.
- Report to physician immediately symptoms of sore throat, fever, malaise, easy bruising, unusual bleeding, or motor restlessness.
- Be aware of risks of taking these drugs during pregnancy. (Congenital malformations have been associated with use during the first trimester.) If pregnancy is suspected or planned, notify the physician of the desirability to discontinue the drug.

- Be aware of possible side effects. Refer to written materials furnished by health-care providers regarding the correct method of self-administration.
- Carry card or piece of paper at all times describing medications being taken.

■ INTERNET REFERENCES

- <http://www.rxlist.com/>
- <http://www.drugguide.com/>
- <http://www.nimh.nih.gov/publicat/medicate.cfm>
- <http://www.fadavis.com/townsend>

NOTE: The FDA recently approved the medication atomoxetine (Strattera) as an agent for attention deficit hyperactivity disorder (ADHD). Because of atomoxetine's chemical classification, it is covered in Chapter 25: Antidepressants.

■ CHEMICAL CLASS: AMPHETAMINES

Examples

Generic (Trade) Name	Controlled/Pregnancy Category	Half-life	Indications	Available Forms (mg)
Amphetamine/dextroamphetamine mixtures (Adderall; Adderall XR)	C-II/C	9–13 h	Narcolepsy ADHD in children	Tab: 5, 7.5, 10, 12.5, 15, 20, 30 Caps (XR): 5, 10, 15, 20, 25, 30
Dextroamphetamine sulfate (Dexedrine; Dextrostat)	C-II/C	~12 h	Narcolepsy ADHD in children	Tab: 5, 10 Caps (SR): 5, 10, 15
Methamphetamine (Desoxyn)	C-II/C	4–5 h	ADHD in children Exogenous obesity	Tab: 5

Action

- Central nervous system (CNS) stimulation is mediated by release of norepinephrine from central noradrenergic neurons in cerebral cortex, reticular activating system, and brain stem.
- At higher doses, dopamine may be released in the mesolimbic system.
- Action in the treatment of ADHD is unclear.

Contraindications and Precautions

Contraindicated in:

- Advanced arteriosclerosis
- Symptomatic cardiovascular disease

- Moderate to severe hypertension
- Hyperthyroidism
- Hypersensitivity or idiosyncrasy to the sympathomimetic amines
- Glaucoma
- Agitated states
- History of drug abuse
- During or within 14 days following administration of monoamine oxidase (MAO) inhibitors (hypertensive crisis may occur)
- Children younger than 3 years
- Pregnancy and lactation

Use cautiously in:

- Patients with mild hypertension
- Children with psychoses (may exacerbate symptoms)
- Tourette's disorder (may exaggerate tics)
- Anorexia
- Insomnia
- Elderly, debilitated, or asthenic patients
- Patients with suicidal or homicidal tendencies

Adverse Reactions and Side Effects

- Overstimulation
- Restlessness
- Dizziness
- Insomnia
- Headache
- Palpitations
- Tachycardia
- Elevation of blood pressure
- Anorexia
- Weight loss
- Dry mouth
- Tolerance
- Physical and psychological dependence
- Suppression of growth in children (with long-term use)

Continued on the following page

Interactions

- Increased sensitivity to amphetamines with **furazolidone**.
- Use of amphetamines with **MAO inhibitors** can result in hypertensive crisis.
- Increased effects of amphetamines and risk of serotonin syndrome with **selective serotonin reuptake inhibitors (SSRIs)**.
- Prolonged effects of amphetamines with **urinary alkalinizers**.
- Hastened elimination of amphetamines with **urinary acidifiers**.
- Amphetamines may reverse the hypotensive effects of **guanethidine**.
- **Phenothiazines** may antagonize the CNS stimulant action of amphetamines.
- Patients with diabetes mellitus who take amphetamines may require **insulin** adjustment.

Route and Dosage

AMPHETAMINE/DEXTROAMPHETAMINE MIXTURES (*Adderall; Adderall XR*)

- **Narcolepsy:** (Adults \geq 12 years) **PO:** Initial dose: 10 mg/day; may increase in increments of 10 mg/day at weekly intervals up to a maximum of 60 mg/day. Give first dose on awakening and 1 or 2 additional doses at intervals of 4 to 6 hours. (Children 6 to 12 years of age): Narcolepsy is rare in children younger than 12 years. When it does occur, initial dose is 5 mg/day. May increase in increments of 5 mg/day in weekly intervals up to a maximum of 60 mg/day.
- **ADHD in children:** (not recommended for children < 3 years of age) (Children 3 to 6 years) **PO:** Initial dose: 2.5 mg/day. May increase in increments of 2.5 mg/day at weekly intervals. (Children \geq 6 years): Initial dose: 5 mg 1 or 2 times daily. May increase in increments of 5 mg/day at weekly intervals.
- **Extended-release caps:** (Children \geq 6 years): **PO:** Initial dose: 10 mg once daily in the morning. May increase daily dosage in increments of 10 mg at weekly intervals. Maximum dosage: 30 mg/day.

DEXTROAMPHETAMINE SULFATE (*Dexedrine; Dextrostat*)

- **Narcolepsy:** (Adults \geq 12 years) **PO:** Initial dose: 10 mg/day; may increase in increments of 10 mg/day at weekly intervals up to a

maximum of 60 mg/day. Give first dose on awakening and 1 or 2 additional doses at intervals of 4 to 6 hours. (Children 6 to 12 years of age): Narcolepsy is rare in children younger than 12 years. When it does occur, initial dose is 5 mg/day. May increase in increments of 5 mg/day in weekly intervals up to a maximum of 60 mg/day.

- **ADHD in children:** (not recommended for children < 3 years of age) (Children 3 to 6 years) **PO:** Initial dose: 2.5 mg/day. May increase in increments of 2.5 mg/day at weekly intervals. (Children \geq 6 years): Initial dose: 5 mg 1 or 2 times daily. May increase in increments of 5 mg/day at weekly intervals.
- **Sustained-release caps** may be used for once-a-day dosage. Give first dose on awakening and 1 or 2 additional doses at intervals of 4 to 6 hours.

METHAMPHETAMINE (*Desoxyn*)

- **ADHD in children:** 5 mg once or twice daily. May increase in increments of 5 mg at weekly intervals. Usual effective dose is 20 to 25 mg/day.
- **Exogenous obesity:** 5 mg 30 minutes before each meal.

■ CHEMICAL CLASS: ANOREXIANTS

Examples

Generic (Trade) Name	Controlled/Pregnancy Category	Half-life	Indications	Available Forms (mg)
Benzphetamine (Didrex)	C-III/X	7–33 h	Obesity	Tabs: 50
Diethylpropion (Tenuate)	C-IV/B	1–3.5 h	Obesity	Tabs: 25 Tabs (CR): 75
Phendimetrazine (Bontril; Bontril PDM)	C-III/C	1.9–9.8 h	Obesity	Tabs: 35 Caps (SR): 105

Continued on the following page

Generic (Trade) Name	Controlled/Pregnancy Category	Half-life	Indications	Available Forms (mg)
Phentermine (Adipex-P, Ionamin)	C-IV/C	19–24 h	Obesity	Tabs: 37.5 Caps: 15, 30, 37.5
Sibutramine (Meridia)	C-IV/C	1.1 h	Obesity	Caps: 5, 10, 15

Action

- The exact mechanism of action is unclear.
- It is thought that appetite suppression is produced by a direct stimulant effect on the satiety center in the hypothalamic and limbic regions.

Diethylpropion, phentermine, benzphetamine, phendimetrazine:

- Act by modulating central norepinephrine and dopamine receptors through the promotion of catecholamine release.

Sibutramine:

- Inhibits the reuptake of norepinephrine, serotonin, and dopamine.

Contraindications and Precautions

Contraindicated in:

- Advanced arteriosclerosis
- History of cardio- or cerebrovascular disease
- Moderate to severe hypertension
- Hyperthyroidism
- Known hypersensitivity or idiosyncrasy to sympathomimetic amines
- Glaucoma
- Agitated states
- History of drug abuse
- During or within 14 days following administration of MAO inhibitors
- Coadministration with other CNS stimulants

- Pregnancy and lactation
- Children younger than 12 years

Sibutramine:

- Anorexia nervosa
- Severe renal impairment
- Children younger than 16 years
- Concomitantly with other SSRIs (may cause serotonin syndrome)

Use cautiously in:

- Mild hypertension
- Diabetes mellitus
- Elderly or debilitated patients
- Patients with a history of seizures

Adverse Reactions and Side Effects

- Overstimulation
- Restlessness
- Dizziness
- Insomnia
- Headache
- Palpitations
- Tachycardia
- Elevation of blood pressure
- Dry mouth
- Tolerance
- Physical and psychological dependence

Interactions

Benzphetamine; diethylpropion; phendimetrazine; phentermine:

- Possible hypertensive crisis and intracranial hemorrhage with **MAO inhibitors** or **furazolidone**.
- Possible increased CNS effects and risk of serotonin syndrome with **SSRIs**.
- Decreased hypotensive effect of **guanethidine** with anorexiant.
- Possible increased effects of **tricyclic antidepressants** with anorexiant.

Continued on the following page

Sibutramine:

- Concomitant use with **other centrally acting anorexiant**s, MAO inhibitors, SSRIs, naratriptan, frovatriptan, rizatriptan, zolmitriptan, sumatriptan, dihydroergotamine, methysergide, dextromethorphan, meperidine, pentazocine, fentanyl, lithium, or tryptophan may result in potentially fatal serotonin syndrome. Allow 2 weeks between use of MAO inhibitors and sibutramine.
- Decreased metabolism and increased blood levels and effects of sibutramine with **ketoconazole**, **cimetidine**, and **erythromycin**.
- Concomitant use with cough, cold, and allergy medications that contain **ephedrine** or **pseudoephedrine** may cause hypertension.

Route and Dosage

Benzphetamine (Didrex)

- **Obesity: Adults**—PO: Initial dose: 25 to 50 mg once daily, mid-morning or mid-afternoon. Increase dosage according to client response. Dosage range: 25 to 50 mg 1 to 3 times daily.

Diethylpropion (Tenuate)

- **Obesity: Adults**—PO: *Immediate-release tablets*: 25 mg 3 times/day 1 hour before meals.
- *Controlled-release tablets*: 75 mg once daily in mid-morning.

Phendimetrazine (Bontril)

- **Obesity: Adults**—PO: *Immediate-release tablets*: 35 mg 2 or 3 times/day 1 hour before meals. *Sustained-release tablets*: 105 mg once daily in the morning 30 to 60 minutes before the morning meal.

Phentermine (Ionamin; Adipex-P)

- **Obesity: Adults**—PO: 15 to 37.5 mg once daily before breakfast or 10 to 14 hours before bedtime.

Sibutramine (Meridia)

- **Obesity: Adults**—PO: 10 mg once daily in the morning; may be increased to 15 mg/d after 4 weeks. Clients who do not tolerate an initial dose of 10 mg/d may be started on 5 mg/d. Maximum daily dose: 15 mg.

CHEMICAL CLASS: MISCELLANEOUS

Examples

Generic (Trade) Name	Controlled/Pregnancy Category	Half-life	Indications	Available Forms (mg)
Dexmethylphenidate (Focalin)	C-II/C	2.2 h	ADHD	Tabs: 2.5, 5, 10
Methylphenidate (Ritalin; Metadate ER; Metadate CD; Concerta; Ritalin-SR; Ritalin-LA)	C-II/C	3–3.5 h	ADHD Narcolepsy	Immediate release tabs: 5, 10, 20 Metadate ER: Tabs: 10, 20 Metadate CD: Caps: 20 Concerta: Tabs: 18, 27, 36, 54 Ritalin-SR: Tabs: 20 Ritalin-LA: Caps: 20, 30, 40
Modafinil (Provigil)	C-IV/C	15 h	Narcolepsy	Tabs: 100, 200
Pemoline (Cylert)	C-IV/B	12 h	ADHD	Tabs: 18.75, 37.5, 75 Tabs (chewable): 37.5

Actions

- Dexmethylphenidate blocks the reuptake of norepinephrine and dopamine into the presynaptic neuron and increases the release of these amines into the extraneuronal space.
- Methylphenidate activates the brain stem arousal system and cortex to produce its stimulant effect.
- Modafinil binds to the dopamine reuptake site and causes an increase in extracellular dopamine.

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- The exact mechanism of action of pemoline is unknown, but it is thought to act through dopaminergic mechanisms.
- Action in the treatment of ADHD is unknown.

Contraindications and Precautions

Contraindicated in:

- Hypersensitivity
- Pregnancy, lactation, and children younger than 6 years (safety has not been established)

Dexmethylphenidate; methylphenidate:

- Clients with marked anxiety, tension, or agitation
- History of glaucoma
- Motor tics or family history or diagnosis of Tourette's syndrome
- During or within 14 days of treatment of MAO inhibitors (hypertensive crisis can occur)

Pemoline:

- Hepatic insufficiency (NOTE: Pemoline has been associated with life-threatening hepatic failure and should not ordinarily be considered as first-line therapy for ADHD.)

Use cautiously in:

- Patients with history of seizure disorder and/or EEG abnormalities
- Hypertension
- History of drug or alcohol dependence
- Emotionally unstable patient
- Renal or hepatic insufficiency

Adverse Reactions and Side Effects

- | | |
|------------|---|
| • Headache | • Tachycardia |
| • Nausea | • Nervousness |
| • Rhinitis | • Abdominal pain |
| • Fever | • Growth suppression in children (with long-term use) |
| • Anorexia | |
| • Insomnia | |

Interactions

- **Modafinil** absorption is delayed by **methylphenidate**.
- Increased levels of **tricyclic antidepressants, phenytoin, and warfarin**.

- Reduced effectiveness of **oral contraceptives** with modafinil.
- Decreased effectiveness of **antihypertensive agents** with methylphenidate and dexmethylphenidate.
- Increased serum levels of **anticonvulsants, tricyclic antidepressants, and SSRIs** with methylphenidate and dexmethylphenidate.
- Increased levels of **warfarin** with dexmethylphenidate.
- Decreased effectiveness of **anticonvulsants** with pemoline.

Route and Dosage

Dexmethylphenidate (Focalin)

- **ADHD: Adults and children ≥ 6 years**—Administer doses 2 times/day at least 4 hours apart. **Clients new to the medication:** Starting dose: 2.5 mg 2 times/day. May increase dosage in 2.5- to 5-mg increments at weekly intervals to a maximum of 20 mg/d (10 mg 2 times/day).
- **Clients currently taking methylphenidate:** Starting dose: Half of the dose of methylphenidate being taken. Maximum recommended dose of dexmethylphenidate: 20 mg/d (10 mg 2 times/day).

Methylphenidate (Ritalin; Ritalin-SR; Metadate ER; Concerta)

- **ADHD: Ritalin immediate release: Adults**—PO: Range 10 to 60 mg/d in divided doses 2 or 3 times/day preferably 30 to 45 minutes before meals. Average dose is 20 to 30 mg/d. To prevent interruption of sleep, take last dose of the day before 6 p.m. **Children ≥ 6 years**—PO: Individualize dose. May start with low dose of 5 mg 2 times/day before breakfast and lunch. May increase dosage in 5- to 10-mg increments at weekly intervals. Maximum daily dose: 60 mg. **Ritalin-SR and Metadate ER: All patients**—PO: May be used in place of the immediate-release tablets when the 8-hour dose corresponds to the titrated 8-hour dose of the immediate-release tablets. **Ritalin-LA and Metadate CD: All patients**—PO: Initial dose: 20 mg once daily in the morning. May increase dosage in 10- to 20-mg increments at weekly intervals to a maximum of 60 mg taken once daily in the morning. Capsules may be swallowed whole with liquid or opened and contents

Continued on the following page

sprinkled on soft food (e.g., applesauce). Ensure that entire contents of capsule are consumed when taken in this manner. **Concerta:** *All patients*—PO: Should be taken once daily in the morning. Must be swallowed whole and not chewed, divided, or crushed. **Clients new to methylphenidate**—18 mg once daily in the morning. May adjust dose at weekly intervals to maximum of 54 mg/d taken once daily in the morning. **Clients currently using methylphenidate**—Should use following conversion table:

<i>Previous methylphenidate dose</i>	<i>Recommended Concerta dose</i>
5 mg 2 or 3 times/day or 20 mg (SR)	18 mg every morning
10 mg 2 or 3 times/day or 40 mg (SR)	36 mg every morning
15 mg 2 or 3 times/day or 60 mg (SR)	54 mg every morning

- **Narcolepsy:** *Adults*—PO: **Ritalin, Ritalin-SR, and Metadate ER** indicated for this use. Dose as provided for ADHD for these three medications.

Modafinil (Provigil)

- **Narcolepsy:** *Adults*—PO: 200 mg/d taken as a single dose in the morning.

Pemoline (Cylert)

- **ADHD:** *Adults and children ≥6 years*—Initial dose: 37.5 mg/d as a single dose in the morning. May increase in 18.75-mg increments at weekly intervals until desired response is achieved. Usual effective dose range: 56.25 to 75 mg/d. Maximum recommended daily dose: 112.5 mg.

■ NURSING DIAGNOSES RELATED TO CNS STIMULANTS

1. Risk for injury related to overstimulation and hyperactivity.
2. Risk for suicide related to abrupt withdrawal after extended use.
3. Imbalanced nutrition, less than body requirements, related to side effects of anorexia and weight loss.

4. Imbalanced nutrition, more than body requirements, related to excess intake in relation to metabolic needs.
5. Disturbed sleep pattern related to overstimulation resulting from use of the medication.

■ NURSING IMPLICATIONS FOR CNS STIMULANTS

The plan of care should include monitoring for the following side effects from CNS stimulants. Nursing implications related to each side effect are designated by an asterisk (*).

1. Overstimulation, Restlessness, Insomnia
 - * Assess mental status for changes in mood, level of activity, extent of stimulation, and aggressiveness.
 - * Ensure that client is protected from injury.
 - * Keep stimuli low and environment as quiet as possible to discourage overstimulation.
 - * To prevent insomnia, administer the last dose at least 6 hours before bedtime.
 - * Administer sustained-release forms in the morning.
2. Palpitations, Tachycardia
 - * Monitor and record vital signs at regular intervals (2 or 3 times/day) throughout therapy. Report significant changes to the physician immediately.
3. Anorexia, Weight Loss
 - * If the medication is being taken by children with behavior disorders (and not as an anorexiant): to reduce anorexia, administer the medication immediately after meals. The client should be weighed regularly (at least weekly) during hospitalization and at home while receiving therapy with CNS stimulants because of the potential for anorexia and weight loss as well as temporary interruption of growth and development.
4. Tolerance, Physical and Psychological Dependence
 - * Tolerance develops rapidly. If anorexigenic effects begin to diminish, client should notify the physician immediately. Client should be on reduced-calorie diet and program of regular exercise in addition to the medication.

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*In children with behavior disorders, a drug “holiday” should be attempted periodically under direction of the physician to determine the effectiveness of the medication and the need for continuation.

*The drug should not be withdrawn abruptly. To do so could initiate the following syndrome of symptoms: nausea, vomiting, abdominal cramping, headache, fatigue, weakness, mental depression, suicidal ideation, increased dreaming, and psychotic behavior.

■ **CLIENT/FAMILY EDUCATION RELATED TO ALL CNS STIMULANTS**

- Use caution in driving or operating dangerous machinery. Dizziness and blurred vision can occur.
- Do not stop taking the drug abruptly. To do so could produce serious withdrawal symptoms.
- Avoid taking medication late in the day to prevent insomnia. Take no later than 6 hours before bedtime.
- Do not take other medications (including over-the-counter drugs) without physician’s approval. Many medications contain substances that, in combination with CNS stimulants, can be harmful.
- Diabetic clients should monitor blood sugar two or three times a day or as instructed by the physician. Be aware of need for possible alteration in insulin requirements due to changes in food intake, weight, and activity.

- Avoid consumption of large amounts of caffeinated products (coffee, tea, colas, chocolate), as they may enhance the stimulant effect of these medications.
- Follow a reduced-calorie diet provided by the dietitian as well as a program of regular exercise. Do not exceed the recommended dose if the appetite suppressant effect diminishes. Contact the physician.
- Notify physician if symptoms of restlessness, insomnia, anorexia, or dry mouth become severe or if rapid, pounding heartbeat becomes evident.
- Be aware of possible risks of taking CNS stimulants during pregnancy. Safe use during pregnancy and lactation has not been established. Inform the physician immediately if pregnancy is suspected or planned.
- Be aware of potential side effects of CNS stimulants. Refer to written materials furnished by health-care providers for safe self-administration.
- Carry a card or other identification at all times describing medications being taken.

■ **INTERNET REFERENCES**

- <http://www.rxlist.com>
- <http://www.drugguide.com>
- <http://www.nimh.nih.gov/publicat/medicate.cfm>
- <http://www.fadavis.com/townsend>

Care Plan: [Inappropriately Anger](#)

Care Plan: [Traumatic Event](#)

Care Plan: [Cognitive Disorder](#)

Care Plan: [Substance-Related Disorder](#)

Care Plan: [Schizophrenia](#)

Care Plan: [Depressed Client](#)

Care Plan: [Manic Episode](#)

Care Plan: [Panic/Anxiety Disorder](#)

Care Plan: [Phobic Disorders](#)

Care Plan: [Obsessive-Compulsive Disorder](#)

Care Plan: [Psychophysiological Disorder](#)

Care Plan: [Somatoform Disorder](#)

Care Plan: [Dissociative Disorder](#)

Care Plan: [Post-Traumatic Stress Disorder](#)

Care Plan: [Sexual Disorder](#)

Care Plan: [Anorexia & Bulimia Nervosa](#)

Care Plan: [Obesity](#)

Care Plan: [Borderline Personality Disorder](#)

Care Plan: [Antisocial Personality Disorder](#)

Care Plan: [Mental Retardation](#)

Care Plan: [Autistic Disorder](#)

Care Plan: [Attention-Deficit/Hyperactivity Disorder](#)

Care Plan: [Conduct Disorder](#)

Care Plan: [Oppositional Defiant Disorder](#)

Care Plan: [Tourette's Disorder](#)

Care Plan: [Separation Anxiety Disorder](#)

Care Plan: [Victims of Abuse](#)

Care Plan: [Elderly Client](#)

Care Plan: [Depressed Elderly Person \(Mrs. C\)](#)

Care Plan: [Chronic Mental Illness](#)

Care Plan: [Grieving Person](#)

Care Plan for the Individual Who Expresses Anger Inappropriately

Nursing Diagnosis: INEFFECTIVE COPING

Related to: (Possible) negative role modeling; dysfunctional family system

Evidenced by: Yelling, name-calling, hitting others, and temper tantrums as expressions of anger

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to recognize anger in self and take responsibility before losing control.	<ol style="list-style-type: none"> 1. Remain calm when dealing with an angry client. 2. Set verbal limits on behavior. Clearly delineate the consequences of inappropriate expression of anger and always follow through. 3. Have the client keep a diary of angry feelings, what triggered them, and how they were handled. 4. Avoid touching the client when he or she becomes angry. 5. Help the client determine the true source of the anger. 6. It may be constructive to ignore initial derogatory remarks by the client. 7. Help the client find alternate ways of releasing tension, such as physical outlets, and more appropriate ways of expressing anger, such as seeking out staff when feelings emerge. 8. Role model appropriate ways of expressing anger assertively, such as, "I dislike being called names. I get angry when I hear you saying those things about me." 	<ol style="list-style-type: none"> 1. Anger expressed by the nurse will most likely incite increased anger in the client. 2. Consistency in enforcing the consequences is essential if positive outcomes are to be achieved. Inconsistency creates confusion and encourages testing of limits. 3. This provides a more objective measure of the problem. 4. The client may view touch as threatening and could become violent. 5. Many times anger is being displaced onto a safer object or person. If resolution is to occur, the first step is to identify the source of the problem. 6. Lack of feedback often extinguishes an undesirable behavior. 7. Client will likely need assistance to problem-solve more appropriate ways of behaving. 8. Role modeling is one of the strongest methods of learning.

Nursing Diagnosis: RISK FOR SELF-DIRECTED OR OTHER-DIRECTED VIOLENCE

Related to: (Possibly) having been nurtured in an atmosphere of violence

Outcome Criteria	Nursing Interventions	Rationale
<p>The client will not harm self or others.</p> <p>The client will verbalize anger rather than hit others</p>	<ol style="list-style-type: none"> 1. Observe client for escalation of anger (called the prodromal syndrome): increased motor activity, pounding, slamming, tense posture, defiant affect, clenched teeth and fists, arguing, demanding, and challenging or threatening staff. 2. When these behaviors are observed, first ensure that sufficient staff are available to help with a potentially violent situation. Attempt to defuse the anger beginning with the least restrictive means. 	<ol style="list-style-type: none"> 1. Violence may be prevented if risks are identified in time. 2. The initial consideration must be having enough help to diffuse a potentially violent situation. Client rights must be honored, while preventing harm to client and others on the unit.

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Outcome Criteria



Walking a client to the seclusion room (From Townsend, M.C.: Essentials of Psychiatric Mental Health Nursing, ed. 2. F.A. Davis Company, Philadelphia, 2002, p. 152, with permission.)



Staff restraint of a client in supine position. The client's head is controlled to prevent biting. (From Townsend, M.C.: Essentials of Psychiatric Mental Health Nursing, ed 2. F.A. Davis Company, Philadelphia, 2002, p. 152, with permission.)


Nursing Interventions

3. Techniques for dealing with aggression include:
 - a. Talking down. Say, "John, you seem very angry. Let's go to your room and talk about it." (Ensure that client does not position self between door and nurse.)
 - b. Physical Outlets. "Maybe it would help if you punched your pillow or the punching bag for a while" or "I'll stay here with you if you want."
 - c. Medication. If agitation continues to escalate, offer client choice of taking medication voluntarily. If he or she refuses, reassess the situation to determine if harm to self or others is imminent.
 - d. Call for assistance. Remove self and other clients from the immediate area. Call violence code, push "panic" button, call for assault team, or institute measures established by institution. Sufficient staff to indicate a show of strength may be enough to deescalate the situation, and client may agree to take the medication.
 - e. Restraints. If client is not calmed by "talking down" or by medication, use of mechanical restraints and/or seclusion may be necessary. Be sure to have sufficient staff available to assist. These three figures illustrate ways in which staff can safely and appropriately deal with an out-of-control client. Follow protocol for restraints/seclusion established by the institution. JCAHO (2000) requires that the physician reissue a new order for restraints every 4 hours for adults and every 1–2 hours for children and adolescents. If the client has previously refused medication, administer after restraints have been applied. Most states consider this intervention appropriate in emergency situations or if a client would likely harm self or others.
 - f. Observation and documentation. Observe the client in restraints every 15 minutes (or according to institutional policy). Ensure that circulation to extremities is not compromised (check temperature, color, pulses). Assist client with needs related to nutrition, hydration, and elimination. Position client so that comfort is facilitated and aspiration can be prevented. Document all observations.

Rationale

3. Aggression control techniques promote safety and reduce risk of harm to client and others:
 - a. Promotes a trusting relationship and may prevent the client's anxiety from escalating.
 - b. Provides effective way for client to release tension associated with high levels of anger.
 - c. Provides the least restrictive method of controlling client behavior.
 - d. Client and staff safety are of primary concern.
 - e. Clients who do not have internal control over their own behavior may require external controls, such as mechanical restraints, in order to prevent harm to self or others.
 - f. Client well-being is a nursing priority.

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Outcome Criteria	Nursing Interventions	Rationale
 <p>Transporting a client to the seclusion room. (From Townsend, M.C.: <i>Essentials of Psychiatric Mental Health Nursing</i>, ed 2. F.A. Davis Company, Philadelphia, 2002, p. 152, with permission.)</p>	<ul style="list-style-type: none"> <li>g. Ongoing assessment. As agitation decreases, assess client's readiness for restraint removal or reduction. With assistance from other staff members, remove one restraint at a time, while assessing client's response. This minimizes the risk of injury to client and staff. <li>h. Staff debriefing. It is important when a client loses control for staff to follow-up with a discussion about the situation. Tardiff (1994) states, "The violent episode should be discussed in terms of what happened, what would have prevented it, why seclusion or restraint was used (if it was), and how the client or the staff felt in terms of the use of seclusion and restraint." It is also important to discuss the situation with other clients who witnessed the episode. It is important that they understand what happened. Some clients may fear that they could be secluded or restrained at some time for no apparent reason. 	<ul style="list-style-type: none"> <li>g. Gradual removal of the restraints allows for testing of the client's self-control. Client and staff safety are of primary concern. <li>h. Debriefing diminishes the emotional impact of the intervention and provides an opportunity to clarify the need for the intervention, offer mutual feedback, and promote client's self-esteem (Norris & Kennedy, 1992).

Care Plan for the Client Who Has Experienced a Traumatic Event¹

Nursing Diagnosis: ANXIETY (PANIC)/FEAR

Related to: Real or perceived threat to physical well-being; threat of death; situational crisis; exposure to toxins; unmet needs

Evidenced by: Persistent feelings of apprehension and uneasiness; sense of impending doom; impaired functioning; verbal expressions of having no control or influence over situation, outcome, or self-care; sympathetic stimulation; extraneous physical movements

Outcome Criteria	Nursing Interventions	Rationale
Client will maintain anxiety at manageable level.	<ol style="list-style-type: none"> Determine degree of anxiety/fear present, associated behaviors (e.g., laughter, crying, calm or agitation, excited/hysterical behavior, expressions of disbelief and/or self-blame), and reality of perceived threat. Note degree of disorganization. Create as quiet an area as possible. Maintain a calm confident manner. Speak in even tones, using short simple sentences. Develop trusting relationship with the client. Identify whether incident has reactivated preexisting or coexisting situations (physical or psychological). Determine presence of physical symptoms (e.g., numbness, headache, tightness in chest, nausea, and pounding heart). Identify psychological responses (e.g., anger, shock, acute anxiety, panic, confusion, denial). Record emotional changes. Discuss with client the perception of what is causing the anxiety. Assist client to correct any distortions being experienced. Share perceptions with client. Explore with client or significant other the manner in which client has previously coped with anxiety-producing events. Engage client in learning new coping behaviors (e.g., progressive muscle relaxation, thought-stopping). 	<ol style="list-style-type: none"> Clearly understanding client's perception is pivotal to providing appropriate assistance in overcoming the fear. Individual may be agitated or totally overwhelmed. Panic state increases risk for client's own safety as well as the safety of others in the environment. Client may be unable to handle ADLs or work requirements and need more intensive intervention. Decreases sense of confusion or overstimulation; enhances sense of safety. Helps client focus on what is said and reduces transmission of anxiety. Trust is the basis of a therapeutic nurse/client relationship and enables them to work effectively together. Concerns and psychological issues will be recycled every time trauma is reexperienced and affect how the client views the current situation. Physical problems need to be differentiated from anxiety symptoms so appropriate treatment can be given. Although these are normal responses at the time of the trauma, they will recycle again and again until they are dealt with adequately. Increases the ability to connect symptoms to subjective feeling of anxiety, providing opportunity to gain insight/control and make desired changes. Perceptions based on reality will help to decrease fearfulness. How the nurse views the situation may help client to see it differently. May help client regain sense of control and recognize significance of trauma. Replacing maladaptive behaviors can enhance ability to manage and deal with stress. Interrupting obsessive thinking allows client to use energy to address underlying anxiety, while continued rumination about the incident can retard recovery.

¹Doenges, Moorhouse, and Geissler, 2002, with permission.

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Outcome Criteria	Nursing Interventions	Rationale
	12. Encourage use of techniques to manage stress and vent emotions such as anger and hostility. 13. Give positive feedback when client demonstrates better ways to manage anxiety and is able to calmly and realistically appraise the situation. 14. Administer medications as indicated: Antianxiety: diazepam, alprazolam, oxazepam; or Antidepressants: fluoxetine, paroxetine, bupropion.	12. Reduces the likelihood of eruptions that can result in abusive behavior. 13. Provides acknowledgement and reinforcement, encouraging use of new coping strategies. Enhances ability to deal with fearful feelings and gain control over situation, promoting future successes. 14. Provides temporary relief of anxiety symptoms, enhancing ability to cope with situation. To lift mood and help suppress intrusive thoughts and explosive anger.

Nursing Diagnosis: SPIRITUAL DISTRESS

Related to: Physical or psychological stress; energy-consuming anxiety; loss(es), intense suffering; separation from religious or cultural ties; challenged belief and value system

Evidenced by: Expressions of concern about disaster and the meaning of life and death or belief systems; inner conflict about current loss of normality and effects of the disaster; anger directed at deity; engaging in self-blame; seeking spiritual assistance

Outcome Criteria	Nursing Interventions	Rationale
Client expresses beliefs and values about spiritual issues.	1. Determine client's religious/spiritual orientation, current involvement, and presence of conflicts. 2. Establish environment that promotes free expression of feelings and concerns. Provide calm, peaceful setting when possible. 3. Listen to client's and significant others' expressions of anger, concern, alienation from God, belief that situation is a punishment for wrongdoing, etc. 4. Note sense of futility, feelings of hopelessness and helplessness, lack of motivation to help self. 5. Listen to expressions of inability to find meaning in life and reason for living. Evaluate for suicidal ideation. 6. Determine support systems available to client. 7. Ask how you can be most helpful. Convey acceptance of client's spiritual beliefs and concerns. 8. Make time for nonjudgmental discussion of philosophical issues and questions about spiritual impact of current situation. 9. Discuss difference between grief and guilt and help client to identify and deal with each, assuming responsibility for own actions, expressing awareness of the consequences of acting out of false guilt.	1. Provides baseline for planning care and accessing appropriate resources. 2. Promotes awareness and identification of feelings so they can be dealt with. 3. It is helpful to understand the client's and significant others' points of view and how they are questioning their faith in the face of tragedy. 4. These thoughts and feelings can result in the client feeling paralyzed and unable to move forward to resolve the situation. 5. May indicate need for further intervention to prevent suicide attempt. 6. Presence or lack of support systems can affect client's recovery. 7. Promotes trust and comfort, encouraging client to be open about sensitive matters. 8. Helps client to begin to look at basis for spiritual confusion. <i>Note:</i> There is a potential for care provider's belief system to interfere with client finding own way. Therefore, it is most beneficial to remain neutral and not espouse own beliefs. 9. Blaming self for what has happened impedes dealing with the grief process and needs to be discussed and dealt with.

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Outcome Criteria	Nursing Interventions	Rationale
	10. Use therapeutic communication skills of reflection and active listening.	10. Helps client find own solutions to concerns.
	11. Encourage client to experience meditation, prayer, and forgiveness. Provide information that anger with God is a normal part of the grieving process.	11. This can help to heal past and present pain.
	12. Assist client to develop goals for dealing with life situation.	12. Enhances commitment to goal, optimizing outcomes and promoting sense of hope.
	13. Identify and refer to resources that can be helpful, e.g., pastoral/parish nurse or religious counselor, crisis counselor, psychotherapy, Alcoholics/Narcotics Anonymous.	13. Specific assistance may be helpful to recovery, e.g., relationship problems, substance abuse, suicidal ideation.
	14. Encourage participation in support groups.	14. Discussing concerns and questions with others can help client resolve feelings.

Nursing Diagnosis: RISK FOR POST-TRAUMA SYNDROME

Related to: Events outside the range of usual human experience; serious threat or injury to self or loved ones; witnessing horrors or tragic events; exaggerated sense of responsibility; survivor's guilt or role in the event, inadequate social support

Outcome Criteria	Nursing Interventions	Rationale
Client demonstrates ability to deal with emotional reactions in an individually appropriate manner.	<ol style="list-style-type: none"> Determine involvement in event (e.g., survivor, significant other, rescue/aid worker, healthcare provider, family member). Evaluate current factors associated with the event, such as displacement from home due to illness/injury, natural disaster, or terrorist attack. Identify how client's past experiences may affect current situation. Listen for comments of taking on responsibility (e.g., "I should have been more careful or gone back to get her.") Identify client's current coping mechanisms. Determine availability and usefulness of client's support systems, family, social contacts, and community resources. Provide information about signs and symptoms of post-trauma response, especially if individual is involved in a high-risk occupation. Identify and discuss client's strengths as well as vulnerabilities. Evaluate individual's perceptions of events and personal significance (e.g., rescue worker trained to provide lifesaving assistance but recovering only dead bodies). 	<ol style="list-style-type: none"> All those concerned with a traumatic event are at risk for emotional trauma and have needs related to their involvement in the event. <i>Note:</i> Close involvement with victims affects individual responses and may prolong emotional suffering. Affects client's reaction to current event and is basis for planning care and identifying appropriate support systems and resources. Statements such as these are indicators of "survivor's guilt" and blaming self for actions. Noting positive or negative coping skills provides direction for care. Family and others close to the client may also be at risk and require assistance to cope with the trauma. Awareness of these factors helps individual identify need for assistance when signs and symptoms occur. Provides information to build on for coping with traumatic experience. Events that trigger feelings of despair and hopelessness may be more difficult to deal with, and require long-term interventions.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 9. Provide emotional and physical presence by sitting with client/significant other and offering solace. 10. Encourage expression of feelings. Note whether feelings expressed appear congruent with events experienced. 11. Note presence of nightmares, reliving the incident, loss of appetite, irritability, numbness and crying, and family or relationship disruption. 12. Provide a calm, safe environment. 13. Encourage and assist client in learning stress-management techniques. 14. Recommend participation in debriefing sessions that may be provided following major disaster events. 15. Identify employment, community resource groups. 16. Administer medications as indicated, such as antipsychotics (e.g., chlorpromazine or haloperidol) or carbamazepine (Tegretol). 	<ol style="list-style-type: none"> 9. Strengthens coping abilities 10. It is important to talk about the incident repeatedly. Incongruencies may indicate deeper conflict and can impede resolution. 11. These responses are normal in the early post-incident time frame. If prolonged and persistent, they may indicate need for more intensive therapy. 12. Helps client deal with the disruption in his or her life. 13. Promotes relaxation and helps individual exercise control over self and what has happened. 14. Dealing with the stresses promptly may facilitate recovery from the event or prevent exacerbation. 15. Provides opportunity for ongoing support to deal with recurrent feelings related to the trauma. 16. Low doses may be used for reduction of psychotic symptoms when loss of contact with reality occurs, usually for clients with especially disturbing flashbacks. Tegretol may be used to alleviate intrusive recollections/flashbacks, impulsivity, and violent behavior.

Nursing Diagnosis: INEFFECTIVE COMMUNITY COPING

Related to: Natural or man-made disasters (earthquakes, tornados, floods, reemerging infectious agents, terrorist activity); ineffective or nonexistent community systems (e.g., lack of or inadequate emergency medical system, transportation system, or disaster planning systems)

Evidenced by: Deficits of community participation; community does not meet its own expectations; expressed vulnerability; community powerlessness; stressors perceived as excessive; excessive community conflicts; high illness rates

Outcome Criteria	Nursing Interventions	Rationale
Client demonstrates an increase in activities to improve community functioning.	<ol style="list-style-type: none"> 1. Evaluate how community activities are related to meeting collective needs within the community itself and between the community and the larger society. Note immediate needs, such as healthcare, food, shelter, funds. 2. Note community reports of functioning including areas of weakness or conflict. 3. Identify effects of related factors on community activities. 4. Determine availability and use of resources. Identify unmet demands or needs of the community. 5. Determine community strengths. 6. Encourage community members/groups to engage in problem-solving activities. 	<ol style="list-style-type: none"> 1. Provides a baseline to determine community needs in relation to current concerns or threats. 2. Provides a view of how the community itself sees these areas. 3. In the face of a current threat, local or national, community resources need to be evaluated, updated and given priority to meet the identified need. 4. Information necessary to identify what else is needed to meet the current situation. 5. Promotes understanding of the ways in which the community is already meeting the identified needs. 6. Promotes a sense of working together to meet the needs.

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Outcome Criteria	Nursing Interventions	Rationale
<ol style="list-style-type: none"> 7. Develop a plan jointly with the members of the community to address immediate needs. 8. Create plans managing interactions within the community itself and between the community and the larger society. 9. Make information accessible to the public. Provide channels for dissemination of information to the community as a whole (e.g., print media, radio/television reports and community bulletin boards, internet sites, speaker's bureau, reports to committees/councils/advisory boards). 10. Make information available in different modalities and geared to differing educational levels/cultures of the community. 11. Seek out and evaluate needs of underserved populations. 	<ol style="list-style-type: none"> 7. Deals with deficits in support of identified goals. 8. Meets collective needs when the concerns/threats are shared beyond a local community. 9. Readily available accurate information can help citizens deal with the situation. 10. Using languages other than English and making written materials accessible to all members of the community will promote understanding. 11. Homeless and those residing in lower income areas may have special requirements that need to be addressed with additional resources. 	

Care Plan for the Client with a Cognitive Disorder

Nursing Diagnosis: RISK FOR TRAUMA

Related to: Impairments in cognitive and psychomotor functioning

Outcome Criteria	Nursing Interventions	Rationale
Client will not experience injury.	<p>The following measures may be instituted:</p> <ol style="list-style-type: none"> Arrange furniture and other items in the room to accommodate client's disabilities. Store frequently used items within easy access. Do not keep bed in an elevated position. Pad siderails and headboard if client has history of seizures. Keep bedrails up when client is in bed (if regulations permit). Assign room near nurses' station; observe frequently. Assist client with ambulation. Keep a dim light on at night. If client is a smoker, cigarettes and lighter or matches should be kept at the nurses' station and dispensed only when someone is available to stay with client when he or she is smoking. Frequently orient client to place, time, and situation. If client is prone to wander, provide an area within which wandering can be carried out safely. Soft restraints may be required if client is very disoriented and hyperactive. 	To ensure client safety.

Nursing Diagnosis: DISTURBED THOUGHT PROCESSES

Related to: Cerebral degeneration

Evidenced by: Disorientation, confusion, memory deficits, and inaccurate interpretation of the environment

Outcome Criteria	Nursing Interventions	Rationale
Client will interpret the environment accurately and maintain reality orientation to the best of his or her cognitive ability.	<ol style="list-style-type: none"> Frequently orient client to reality. Use clocks and calendars with large numbers that are easy to read. Notes and large, bold signs may be useful as reminders. Allow client to have personal belongings. Keep explanations simple. Use face-to-face interaction. Speak slowly and do not shout. Discourage rumination of delusional thinking. Talk about real events and real people. Monitor for medication side effects. 	<ol style="list-style-type: none"> All of these items serve to help maintain orientation and aid in memory and recognition. These interventions facilitate comprehension. Shouting may create discomfort, and in some instances, may provoke anger. Rumination promotes disorientation. Reality orientation increases sense of self-worth and personal dignity. Physiological changes in the elderly can alter the body's response to certain medications. Toxic effects may intensify altered thought processes.

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Nursing Diagnosis: SELF-CARE DEFICIT

Related to: Disorientation, confusion, and memory deficits

Evidenced by: Inability to fulfill ADLs

Outcome Criteria	Nursing Interventions	Rationale
Client will accomplish ADLs to the best of his or her ability. Unfulfilled needs will be met by caregivers.	<ol style="list-style-type: none"> 1. Provide a simple, structured environment: <ol style="list-style-type: none"> a. Identify self-care deficits and provide assistance as required. Promote independent actions as able. b. Allow plenty of time for client to perform tasks. c. Provide guidance and support for independent actions by talking the client through the task one step at a time. d. Provide a structured schedule of activities that does not change from day to day. e. ADLs should follow home routine as closely as possible. f. Provide for consistency in assignment of daily caregivers. 2. Perform ongoing assessment of client's ability to fulfill nutritional needs, ensure personal safety, follow medication regimen, and communicate need for assistance with activities that he or she cannot accomplish independently. 3. Assess prospective caregiver's ability to anticipate and fulfill client's unmet needs. Provide information to assist caregivers with this responsibility. Ensure that caregivers are aware of available community support systems to seek assistance when required. Examples include adult daycare centers, housekeeping and homemaker services, respite-care services, or the local chapter of a national support organization: <ol style="list-style-type: none"> a. For Parkinson's disease information: National Parkinson Foundation Inc. 1501 NW 9th Ave. Miami, FL 33136 1-800-327-4545 b. For Alzheimer's disease information: Alzheimer's Association 225 N. Michigan Ave., Suite 1700 Chicago, IL 60601-7633 1-800-272-3900 	<ol style="list-style-type: none"> 1. To minimize confusion. 2. Client safety and security are nursing priorities. 3. To facilitate transition to discharge from treatment center.

Care Plan for the Client with a Substance-Related Disorder

Nursing Diagnosis: INEFFECTIVE DENIAL

Related to: Weak, underdeveloped ego

Evidenced by: Statements indicating no problem with substance use.

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate acceptance of responsibility for own behavior and acknowledge association between substance use and personal problems.	<ol style="list-style-type: none"> 1. Develop trust. Convey an attitude of acceptance. Ensure that client understands it is not the <i>person</i> but the <i>behavior</i> that is unacceptable. 2. Correct any misconceptions, such as, "I don't have a drinking problem. I can quit any time I want to." Do this in a matter-of-fact, non-judgmental manner. 3. Identify recent maladaptive behaviors or situations that have occurred in the client's life, and discuss how use of substances may be a contributing factor. Say, "The lab report shows your blood alcohol level was 250 when you were involved in that automobile accident." 4. Do not allow client to rationalize or blame others for behaviors associated with substance use. 	<ol style="list-style-type: none"> 1. Unconditional acceptance promotes dignity and self-worth, qualities that this individual has been trying to achieve with substances. 2. These interventions help the client see the condition as an illness that requires help. 3. The first step in decreasing use of denial is for the client to see the relationship between substance use and personal problems. To confront issues with a caring attitude preserves self-esteem. 4. This only serves to prolong the denial.

Nursing Diagnosis: INEFFECTIVE COPING

Related to: Inadequate coping skills and weak ego

Evidenced by: Use of substances as coping mechanism

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to verbalize adaptive coping mechanisms to use, instead of substance abuse, in response to stress (and demonstrate, as applicable).	<ol style="list-style-type: none"> 1. Set limits on manipulative behavior. Administer consequences when limits are violated. Obtain routine urine samples for laboratory analysis of substances. 2. Explore options available to assist with stress rather than resorting to substance use. Practice these techniques. 3. Give positive reinforcement for ability to delay gratification and respond to stress with adaptive coping strategies. 	<ol style="list-style-type: none"> 1. Because of weak ego and delayed development, client is unable to establish own limits or delay gratification. Client may obtain substances from various sources when in the hospital. 2. Because gratification has been closely tied to oral needs, it is unlikely that client is aware of more adaptive coping strategies. 3. Because of weak ego, client needs lots of positive feedback to enhance self-esteem and promote ego development.

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Nursing Diagnosis: IMBALANCED NUTRITION: LESS THAN BODY REQUIREMENTS/DEFICIENT FLUID VOLUME

Related to: Use of substances instead of eating

Evidenced by: Loss of weight, pale conjunctiva and mucous membranes, poor skin turgor, electrolyte imbalance, anemias (and/or other signs and symptoms of malnutrition/dehydration)

Outcome Criteria	Nursing Interventions	Rationale
Client will be free of signs/symptoms of malnutrition/dehydration.	<ol style="list-style-type: none"> 1. Parenteral support may be required initially. 2. Encourage cessation of smoking. 3. Consult dietitian. Determine the number of calories required based on body size and level of activity. Document intake, output and calorie count, and weigh client daily. 4. Ensure that the amount of protein in the diet is correct for the individual client's condition. Protein intake should be adequate to maintain nitrogen equilibrium, but should be drastically decreased or eliminated if there is potential for hepatic coma. 5. Sodium may need to be restricted. 6. Provide foods that are nonirritating to clients with esophageal varices. 7. Provide small frequent feedings of client's favorite foods. Supplement nutritious meals with multiple vitamin and mineral tablet. 	<ol style="list-style-type: none"> 1. To correct fluid and electrolyte imbalance, hypoglycemia, and some vitamin deficiencies. 2. To facilitate repair of damage to GI tract. 3. These interventions are necessary to maintain an ongoing nutritional assessment. 4. Diseased liver may be incapable of properly metabolizing proteins, resulting in an accumulation of ammonia in the blood that circulates to the brain and can result in altered consciousness. 5. To minimize fluid retention (e.g., ascites and edema). 6. To avoid irritation and bleeding of these swollen blood vessels. 7. To encourage intake and facilitate client's achievement of adequate nutrition.

Care Plan for the Client with Schizophrenia

Nursing Diagnosis: DISTURBED THOUGHT PROCESSES

Related to: Inability to trust, panic anxiety, possible hereditary or biochemical factors

Evidenced by: Delusional thinking, inability to concentrate, impaired volition, inability to problem solve, abstract, or conceptualize, extreme suspiciousness of others

Outcome Criteria	Nursing Interventions	Rationale
Client will eliminate pattern of delusional thinking. Client will demonstrate trust in others.	<ol style="list-style-type: none"> 1. Convey acceptance of client's need for the false belief, but indicate you do not share the belief. 2. Do not argue or deny the belief. Use "reasonable doubt" as a therapeutic technique: "I find that hard to believe." 3. Reinforce and focus on reality. Discourage long ruminations about the irrational thinking. Talk about real events and real people. 4. If client is highly suspicious, the following interventions may help: <ol style="list-style-type: none"> a. Use same staff as much as possible; be honest and keep all promises. b. Avoid physical contact; avoid laughing, whispering, or talking quietly where client can see but cannot hear what is being said; provide canned food with can opener or serve food family style; avoid competitive activities; use assertive, matter-of-fact, yet friendly approach. 	<ol style="list-style-type: none"> 1. Client must understand that you do not view the idea as real. 2. Arguing or denying the belief serves no useful purpose because delusional ideas are not eliminated by this approach, and the development of a trusting relationship may be impeded. 3. Discussions that focus on the false ideas are purposeless and useless, and may even aggravate the psychosis. 4. To decrease client's suspiciousness: <ol style="list-style-type: none"> a. Promotes trust. b. Prevents the client from feeling threatened.

Nursing Diagnosis: DISTURBED SENSORY-PERCEPTION: AUDITORY/VISUAL

Related to: Panic anxiety, extreme loneliness and withdrawal into the self

Evidenced by: Inappropriate responses, disordered thought sequencing, rapid mood swings, poor concentration, disorientation

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to define and test reality, eliminating the occurrence of hallucinations.	<ol style="list-style-type: none"> 1. Observe client for signs of hallucinations (listening pose, laughing or talking to self, stopping in mid-sentence). 2. Avoid touching the client without warning. 3. An attitude of acceptance will encourage the client to share the content of the hallucination with you. 4. Do not reinforce the hallucination. Use "the voices" instead of words like "they" that imply validation. Let client know that you do not share the perception. Say, "Even though I realize the voices are real to you, I do not hear any voices." 	<ol style="list-style-type: none"> 1. Early intervention may prevent aggressive response to command hallucinations. 2. Client may perceive touch as threatening and may respond in an aggressive manner. 3. This is important to prevent possible injury to the client or others from command hallucinations. 4. Client must accept the perception as unreal before hallucinations can be eliminated.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> Help the client understand the connection between anxiety and hallucinations. Try to distract the client from the hallucination. 	<ol style="list-style-type: none"> If client can learn to interrupt escalating anxiety, hallucinations may be prevented. Involvement in interpersonal activities and explanation of the actual situation will help bring the client back to reality.

Nursing Diagnosis: SOCIAL ISOLATION

Related to: Inability to trust, panic anxiety, weak ego development, delusional thinking, regression

Evidenced by: Withdrawal, sad, dull affect, need-fear dilemma, preoccupation with own thoughts, expression of feelings of rejection or of aloneness imposed by others

Outcome Criteria	Nursing Interventions	Rationale
Client will voluntarily spend time with other clients and staff members in group activities on the unit.	<ol style="list-style-type: none"> Convey an accepting attitude by making brief, frequent contacts. Show unconditional positive regard. Offer to be with client during group activities that he or she finds frightening or difficult. Give recognition and positive reinforcement for client's voluntary interactions with others. 	<ol style="list-style-type: none"> An accepting attitude increases feelings of self-worth and facilitates trust. The presence of a trusted individual provides emotional security for the client. Positive reinforcement enhances self-esteem and encourages repetition of acceptable behaviors.

Nursing Diagnosis: RISK FOR VIOLENCE: SELF-DIRECTED OR OTHER-DIRECTED

Related to: Extreme suspiciousness, panic anxiety, catatonic excitement, rage reactions, command hallucinations

Evidenced by: Overt and aggressive acts, goal-directed destruction of objects in the environment, self-destructive behavior or active aggressive suicidal acts

Outcome Criteria	Nursing Interventions	Rationale
Client will not harm self or others.	<ol style="list-style-type: none"> Maintain low level of stimuli in client's environment (low lighting, few people, simple decor, low noise level). Observe client behavior frequently. Do this while carrying out routine activities. Remove all dangerous objects from client's environment. Redirect violent behavior with physical outlets for the anxiety. Staff should maintain a calm attitude toward client. 	<ol style="list-style-type: none"> Anxiety level rises in stimulating environment. Individuals may be perceived as threatening by a suspicious, agitated client. Observation during routine activities avoids creating suspiciousness on the part of the client. Close observation is necessary so that intervention can occur if required to ensure client (and others') safety. Removal of dangerous objects prevents client in an agitated, confused state, from harming self or others. Physical exercise is a safe and effective way of relieving pent-up tension. Anxiety is contagious and can be transmitted from staff to client.

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| <ul style="list-style-type: none"> 6. Have sufficient staff available to indicate a show of strength to client if it becomes necessary. 7. Administer tranquilizing medications as ordered by physician. If client is not calmed by “talking down” or by medication, use of mechanical restraints may be necessary. | <ul style="list-style-type: none"> 6. This shows the client evidence of control over the situation and provides some physical security for staff. 7. The avenue of the “least restrictive alternative” must be selected when planning interventions for a violent client. |
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Nursing Diagnosis: IMPAIRED VERBAL COMMUNICATION

Related to: Panic anxiety; regression; withdrawal; disordered, unrealistic thinking

Evidenced by: Loose association of ideas, neologisms, word salad, clang association, echolalia, verbalizations that reflect concrete thinking, poor eye contact

Outcome Criteria	Nursing Interventions	Rationale
<p>Client will be able to communicate appropriately and comprehensibly by discharge.</p>	<ul style="list-style-type: none"> 1. Attempt to decode incomprehensible communication patterns. Seek validation and clarification by stating, “Is it that you mean...?” or “I don’t understand what you mean by that. Would you please clarify it for me?” 2. Facilitate trust and understanding by maintaining staff assignments as consistently as possible. The technique of <i>verbalizing the implied</i> is used with the client who is mute (unable or unwilling to speak). Example: “That must have been a very difficult time for you when your mother left. You must have felt very alone.” 3. Anticipate and fulfill client’s needs until functional communication pattern returns. 4. Orient client to reality as required. Call the client by name. Validate those aspects of communication that help differentiate between what is real and not real. 	<ul style="list-style-type: none"> 1. These techniques reveal how the client is being perceived by others, while the responsibility for not understanding is accepted by the nurse. 2. This approach conveys empathy and may encourage the client to disclose painful issues. 3. Client safety and comfort are nursing priorities. 4. These techniques may facilitate restoration of functional communication patterns in the client.

Nursing Diagnosis: SELF-CARE DEFICIT

Related to: Withdrawal, regression, panic anxiety, perceptual or cognitive impairment, inability to trust

Evidenced by: Difficulty carrying out tasks associated with hygiene, dressing, grooming, eating, toileting

Outcome Criteria	Nursing Interventions	Rationale
<p>Client will demonstrate ability to meet self-care needs independently.</p>	<ul style="list-style-type: none"> 1. Provide assistance with self-care needs as required. Some clients who are severely withdrawn may require total care. 2. Encourage client to perform independently as many activities as possible. Provide positive reinforcement for independent accomplishments. 3. Use concrete communication to show client what is expected. Example: “Pick up the spoon, scoop some mashed potatoes into it, and put it in your mouth.” 	<ul style="list-style-type: none"> 1. Client safety and comfort are nursing priorities. 2. Independent accomplishment and positive reinforcement enhance self-esteem and promote repetition of desirable behaviors. 3. Because concrete thinking prevails, explanations must be provided at the client’s concrete level of comprehension.

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| <ul style="list-style-type: none"> 4. Creative approaches may need to be taken with the client who is not eating, such as allowing client to open own canned or packaged foods; family-style serving may also be an option. 5. If toileting needs are not being met, establish a structured schedule for the client. | <ul style="list-style-type: none"> 4. These techniques may be helpful with the client who is paranoid and may be suspicious that he or she is being poisoned with food or medication. 5. A structured schedule will help the client establish a pattern so that he or she can develop a habit of toileting independently. |
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Nursing Diagnosis: DISABLED FAMILY COPING

Related to: Difficulty coping with client's illness

Evidenced by: Neglectful care of the client in regard to basic human needs or illness treatment, extreme denial or prolonged overconcern regarding client's illness

Outcome Criteria	Nursing Interventions	Rationale
Family will identify more adaptive coping strategies for dealing with client's illness and treatment regimen.	<ul style="list-style-type: none"> 1. Identify level of family functioning. Assess communication patterns, interpersonal relationships between members, role expectations, problem-solving skills, and availability of outside support systems. 2. Provide information for the family about the client's illness, what will be required in the treatment regimen, and the long-term prognosis. 3. With family members, practice how to respond to bizarre behavior and communication patterns and in the event that the client becomes violent. 	<ul style="list-style-type: none"> 1. These factors will help to identify how successful the family is in dealing with stressful situations and areas where assistance is required. 2. Knowledge and understanding about what to expect may facilitate the family's ability to successfully integrate the client into the system. 3. A plan of action will assist the family to respond adaptively in the face of what they may consider to be a crisis.

Care Plan for the Depressed Client

Nursing Diagnosis: RISK FOR SUICIDE

Related to: Depressed mood, feelings of worthlessness, anger turned inward on the self, misinterpretations of reality

Outcome Criteria	Nursing Interventions	Rationale
Client will not harm self	<ol style="list-style-type: none"> 1. Ask client directly: "Have you thought about harming yourself in any way? If so, what do you plan to do? Do you have the means to carry out this plan?" 2. Create a safe environment for the client. Remove all potentially harmful objects from client's access (sharp objects, straps, belts, ties, glass items, alcohol). Supervise closely during meals and medication administration. Perform room searches as deemed necessary. 3. Formulate a short-term verbal or written contract that the client will not harm self. When time is up, make another, and so forth. Secure a promise that the client will seek out staff when feeling suicidal. 4. Maintain close observation of client. Depending on level of suicide precaution, provide one-to-one contact, constant visual observation, or checks every-15-minutes. Place room close to nurse's station; do not assign to private room. Accompany to off-ward activities if attendance is indicated. May need to accompany to bathroom. 5. Maintain special care in administration of medications. 6. Make rounds at frequent, <i>irregular</i> intervals (especially at night, toward early morning, at change of shift, or other predictably busy times for staff). 7. Encourage client to express honest feelings, including anger. Provide hostility release if needed. 	<ol style="list-style-type: none"> 1. The risk of suicide is greatly increased if the client has developed a plan and particularly if means exist for the client to execute the plan. 2. Client safety is a nursing priority. 3. A degree of the responsibility for his or her safety is given to the client. Increased feelings of self-worth may be experienced when client feels accepted unconditionally regardless of thoughts or behavior. 4. Close observation is necessary to ensure that client does not harm self in any way. Being alert for suicide and escape attempts facilitates being able to prevent or interrupt harmful behavior. 5. Prevents boarding for overdose or discarding and not taking 6. Prevents staff surveillance from becoming predictable. To be aware of client's location is important, especially when staff is busy unavailable, and observable 7. Depression and suicidal behaviors may be viewed as anger turned inward on the self. If this anger can be verbalized in a nonthreatening environment, the client may be able to eventually resolve these feelings.

Nursing Diagnosis: Dysfunctional grieving

Related to: Real or perceived loss; bereavement overload

Evidenced by: Denial of loss, inappropriate expression of anger, idealization of or obsession with lost object, inability to carry out activities of daily living

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to verbalize normal behaviors associated with grieving and begin progression	<ol style="list-style-type: none"> 1. Assess stage of fixation in grief process. 2. Develop trust. Show empathy, concern, and unconditional positive regard. 	<ol style="list-style-type: none"> 1. Accurate baseline data is required in order to plan accurate care. 2. Developing trust provides the basis for a therapeutic relationship.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> Explore feelings of anger and help client direct them toward the intended object or person. Promote the use of large motor activities for relieving pent-up tension. Teach normal behaviors associated with grieving. Help client with honest review of relationship with lost object. 	<ol style="list-style-type: none"> Until client can recognize and accept personal feelings regarding the loss, grief work cannot progress. Physical exercise is a safe and effective way of relieving internalized anger. Understanding of the grief process will help prevent feelings of guilt generated by these responses. Only when the client is able to see both positive and negative aspects related to the lost object will the grieving process be complete.

Nursing Diagnosis: LOW SELF-ESTEEM

Related to: Learned helplessness, feelings of abandonment by significant other, impaired cognition fostering negative view of self

Evidenced by: Expressions of worthlessness, hypersensitivity to slights or criticism, negative, pessimistic outlook

Outcome Criteria	Nursing Interventions	Rationale
<p>Client will be able to attempt new activities without fear of failure.</p> <p>Client will be able to verbalize positive aspects about self.</p>	<ol style="list-style-type: none"> Be accepting of client and spend time with him or her even though pessimism and negativism may seem objectionable. Focus on strengths and accomplishments and minimize failures. Promote attendance in therapy groups that offer client simple methods of accomplishment. Encourage client to be as independent as possible. Encourage client to recognize areas of change and provide assistance toward this effort. Teach assertiveness and communication techniques. 	<ol style="list-style-type: none"> Interventions that focus on the positive contribute toward feelings of self-worth. Success and independence promote feelings of self-worth. Client will need assistance with problem solving. Effective communication and assertiveness techniques enhance self-esteem.

Nursing Diagnosis: POWERLESSNESS

Related to: Dysfunctional grieving process, lifestyle of helplessness

Evidenced by: Feelings of lack of control over life situation, overdependence on others to fulfill needs

Outcome Criteria	Nursing Interventions	Rationale
<p>Client will be able to solve problems to take control of life situation.</p>	<ol style="list-style-type: none"> Allow client to participate in goal setting and decision-making regarding own care Ensure that goals are realistic and that client is able to identify areas of life situation realistically under his or her control. Encourage client to verbalize feelings about areas not within his or her ability to control. 	<ol style="list-style-type: none"> Providing client with choices will increase his or her feelings of control. Realistic goals will avoid setting client up for further failures. Verbalization of unresolved issues may help client accept what cannot be changed.

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Nursing Diagnosis: SPIRITUAL DISTRESS

Related to: Dysfunctional grieving over loss of valued object

Evidenced by: Anger toward God, questioning meaning of own existence, inability to participate in usual religious practices

Outcome Criteria	Nursing Interventions	Rationale
Client will express achievement of support and personal satisfaction from spiritual practices.	<ol style="list-style-type: none"> 1. Be accepting and nonjudgmental when client expresses anger and bitterness toward God. Stay with client. 2. Encourage client to ventilate feelings related to meaning of own existence in the face of current loss. 3. Encourage client as part of grief work to reach out to previous religious practices for support. Encourage client to discuss these practices and how they provided support in the past. 4. Reassure client that he or she is not alone when feeling inadequate in the search for life's answers. 5. Contact spiritual leader of client's choice, if he or she requests. 	<ol style="list-style-type: none"> 1. The nurse's presence and nonjudgmental attitude increase the client's feelings of self-worth and promote trust in the relationship. 2. Client may believe he or she cannot go on living without lost object. Catharsis can provide relief and put life back into realistic perspective. 3. Client may find comfort in religious rituals with which he or she is familiar. 4. Validation of client's feelings and assurance that others share them offers reassurance and an affirmation of acceptability. 5. These individuals serve to provide relief from spiritual distress and often can do so when other support persons cannot.

Nursing Diagnosis: HOPELESSNESS

Related to: Absence of support systems and perception of worthlessness

Evidenced by: Verbal cues (despondent content, "I can't"), decreased affect, lack of initiative, suicidal ideas or attempts

Outcome Criteria	Nursing Interventions	Rationale
Client will verbalize a measure of hope and acceptance of life and situations over which he or she has no control.	<ol style="list-style-type: none"> 1. Identify stressors in client's life that precipitated current crisis. 2. Determine coping behaviors previously used and client's perception of effectiveness then and now. 3. Encourage client to explore and verbalize feelings and perceptions. 4. Provide expressions of hope to client in positive, low-key manner, (e.g., "I know you feel you cannot go on, but I believe that things can get better for you. What you are feeling is temporary. It is okay if you don't see it just now. You are very important to the people who care about you.") 5. Help client identify areas of life situation that are under own control. 6. Identify sources that client may use after discharge when crises occur, or feelings of hopelessness and possible suicidal ideation prevail. 	<ol style="list-style-type: none"> 1. Important to identify causative or contributing factors in order to plan appropriate assistance 2. It is important to identify client's strengths and encourage their use in current crisis. 3. Identification of feelings and underlying behaviors helps client to begin process of taking control of own life. 4. Even though the client feels hopeless, it is helpful to hear positive expressions from others. The client's current state-of-mind may prevent him or her from identifying anything positive in life. It is important to accept the client's feelings nonjudgmentally and to affirm the individual's personal worth and value. 5. The client's emotional condition may interfere with ability to problem-solve. Assistance may be required to perceive the benefits and consequences of available alternatives accurately. 6. Client should be made aware of local suicide hotlines or other local support services from which he or she may seek assistance following discharge from the hospital. A concrete plan provides hope in the face of a crisis.

Care Plan for the Client Experiencing a Manic Episode

Nursing Diagnosis: RISK FOR INJURY

Related to: Extreme hyperactivity

Evidenced by: Increased agitation and lack of control over purposeless and potentially injurious movements

Outcome Criteria	Nursing Interventions	Rationale
Client will not experience injury	<ol style="list-style-type: none"> 1. Reduce environmental stimuli. Assign private room with simple decor, on quiet unit if possible. Keep lighting and noise level low. 2. Remove hazardous objects and substances (including smoking materials). 3. Stay with the client who is hyperactive and agitated. 4. Provide physical activities. 5. Administer tranquilizing medication as ordered by physician. 	<ol style="list-style-type: none"> 1. Client is extremely distractible and responses to even the slightest stimuli are exaggerated. A milieu unit may be too stimulating. 2. Rationality is impaired, and client may harm self inadvertently. 3. Nurse's presence may offer support and provide feeling of security for the client. 4. Physical activities help relieve pent-up tension. 5. Antipsychotics are common and are very effective for providing rapid relief from symptoms of hyperactivity.

Nursing Diagnosis: Risk for violence: SELF-DIRECTED OR OTHER-DIRECTED

Related to: Manic excitement, delusional thinking, hallucinations

Outcome Criteria	Nursing Interventions	Rationale
Client will not harm self or others	<ol style="list-style-type: none"> 1. Maintain low level of stimuli in client's environment 2. Observe client's behavior at least every 15 minutes. 3. Ensure that all sharp objects, glass or mirrored items, belts, ties, smoking materials have been removed from client's environment. 4. Redirect violent behavior with physical outlets. 5. Maintain and convey a calm attitude to client. Respond matter-of-factly to verbal hostility. 6. Have sufficient staff to indicate a show of strength to client if necessary. 7. Offer tranquilizing medication. If client refuses, use of mechanical restraints may be necessary. 8. Medication may then be administered following application of mechanical restraints. Observe client every 15 minutes. 9. Remove restraints gradually, one at a time. 	<ol style="list-style-type: none"> 1. This will minimize anxiety, agitation, and suspiciousness. 2. This is important so that intervention can occur if required to ensure client's (and others') safety. 3. These objects must be removed so that client cannot use them to harm self or others. 4. Physical activity is good for relieving pent-up tension and hostility. 5. Anxiety is contagious and can be transmitted from staff to client. 6. This conveys evidence of control over the situation and provides some physical security for staff. 7. Client should be offered an avenue of the "least restrictive alternative." 8. This ensures that needs for circulation, nutrition, hydration, and elimination are met. Client safety is a nursing priority. 9. Gradual removal of restraints minimizes potential for injury to client and staff.

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Nursing Diagnosis: Imbalanced Nutrition: LESS THAN BODY REQUIREMENTS

Related to: Refusal or inability to sit still long enough to eat

Evidenced by: Weight loss, amenorrhea

Outcome Criteria	Nursing Interventions	Rationale
Client will exhibit no signs or symptoms of malnutrition.	<ol style="list-style-type: none"> 1. Provide high-protein, high-calorie, nutritious finger foods and drinks that can be consumed "on the run." 2. Have juice and snacks on the unit at all times. 3. Maintain accurate record of intake, output, calorie count, and weight. Monitor daily laboratory values. 4. Provide favorite foods. 5. Supplement diet with vitamins and minerals. 6. Walk or sit with client while he or she eats. 	<ol style="list-style-type: none"> 1. Client has difficulty sitting still long enough to eat a meal. 2. Nutritious intake is required on a regular basis to compensate for increased caloric requirement as a result of hyperactivity. 3. These are important nutritional assessment datum. 4. This encourages eating. 5. To improve nutritional status. 6. The nurse's presence offers support and encouragement to client to eat food that will maintain physical wellness.

Nursing Diagnosis: IMPAIRED SOCIAL INTERACTION

Related to: Egocentric and narcissistic behavior

Evidenced by: Inability to develop satisfying relationships and manipulation of others for own desires

Outcome Criteria	Nursing Interventions	Rationale
Client will interact appropriately with others.	<ol style="list-style-type: none"> 1. Recognize that manipulative behaviors help to reduce feelings of insecurity by increasing feelings of power and control. 2. Set limits on manipulative behaviors. Explain what is expected and the consequences if limits are violated. Terms of the limitations must be agreed on by all staff who will be working with the client. 3. Ignore attempts by client to argue, bargain, or charm his or her way out of the limit setting. 4. Give positive reinforcement for nonmanipulative behaviors. 5. Discuss consequences of client's behavior and how attempts are made to attribute them to others. 6. Help client identify positive aspects about self, recognize accomplishments, and feel good about them. 	<ol style="list-style-type: none"> 1. Understanding the motivation behind the behavior may facilitate greater acceptance of the individual. 2. Consequences for violation of limits must be consistently administered, or behavior will not be eliminated. 3. Lack of feedback may decrease these behaviors. 4. Positive reinforcement enhances self-esteem and promotes repetition of desirable behaviors. 5. Client must accept responsibility for own behavior before adaptive change can occur. 6. As self-esteem is increased, client will feel less need to manipulate others for own gratification.

Care Plan for the Client with Panic Disorder or Generalized Anxiety Disorder

Nursing Diagnosis: PANIC ANXIETY

Related to: Real or perceived threat to biological integrity or self-concept

Evidenced by: Any or all of the physical symptoms identified by the *DSM-IV-TR*

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to recognize symptoms of onset of anxiety and to intervene before reaching panic level.	<ol style="list-style-type: none"> 1. Stay with the client and offer reassurance of safety and security. 2. Maintain a calm, nonthreatening, matter-of-fact approach. 3. Use simple words and brief messages, spoken calmly and clearly, to explain hospital experiences. 4. Keep immediate surroundings low in stimuli (dim lighting, few people, simple decor). 5. Administer tranquilizing medication as ordered by physician. Assess for effectiveness and for side effects. 6. When level of anxiety has been reduced, explore possible reasons for occurrence. 7. Teach signs and symptoms of escalating anxiety, and ways to interrupt its progression (relaxation techniques, deep-breathing exercises, and meditation, or physical exercise, brisk walks, and jogging). 	<ol style="list-style-type: none"> 1. The client may fear for his or her life. Presence of a trusted individual provides a feeling of security and assurance of personal safety. 2. Anxiety is contagious and may be transferred from staff to client or vice versa. Client develops a feeling of security in the presence of a calm staff person. 3. In an intensely anxious situation, the client is unable to comprehend anything but the most elemental communication. 4. A stimulating environment may increase level of anxiety. 5. Antianxiety medication provides relief from the immobilizing effects of anxiety. 6. Recognition of precipitating factor(s) is the first step in teaching client to interrupt escalation of anxiety. 7. Relaxation techniques result in a physiological response opposite that of the anxiety response. Physical activities discharge excess energy in a healthful manner.

Nursing Diagnosis: POWERLESSNESS

Related to: Impaired cognition

Evidenced by: Verbal expressions of no control over life situation and nonparticipation in decision-making related to own care or life situation.

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to effectively problem-solve ways to take control of life situation, thereby decreasing feelings of powerlessness and anxiety.	<ol style="list-style-type: none"> 1. Allow client to take as much responsibility as possible for self-care practices. Examples include: <ol style="list-style-type: none"> a. Allow client to establish own schedule for self-care activities b. Include client in setting goals of care c. Provide client with privacy as need is determined. d. Provide positive feedback for decisions made. Respect client's right to make those decisions independently, and refrain from attempting to influence him or her toward those that may seem more logical. 	<ol style="list-style-type: none"> 1. Providing choices will increase client's feelings of control.

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Care Plans: *Panic/Anxiety Disorder (Cont'd)*

Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none">2. Assist client to set realistic goals.3. Help identify areas of life situation that client can control.4. Help client identify areas of life situation that are not within his or her ability to control. Encourage verbalization of feelings related to this inability.	<ol style="list-style-type: none">2. Unrealistic goals set the client up for failure and reinforce feelings of powerlessness.3. Client's emotional condition interferes with the ability to solve problems. Assistance is required to perceive the benefits and consequences of available alternatives accurately.4. This will assist the client to deal with unresolved issues and learn to accept what cannot be changed.

Care Plan for Clients with Phobic Disorders

Nursing Diagnosis: FEAR

Related to: Causing embarrassment to self in front of others, being in a place from which one is unable to escape, or to a specific stimulus

Evidenced by: Behavior directed toward avoidance of the feared object or situation

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to function in presence of phobic object or situation without experiencing panic anxiety.	<ol style="list-style-type: none"> 1. Reassure client that he or she is safe. 2. Explore client's perception of the threat to physical integrity or threat to self-concept. 3. Discuss reality of the situation with client to recognize aspects that can be changed and those that cannot. 4. Include client in making decisions related to selection of alternative coping strategies. (e.g., client may choose either to avoid the phobic stimulus or to attempt to eliminate the fear associated with it.) 5. If client elects to work on elimination of the fear, techniques of desensitization or implosion therapy may be employed. (see explanation of these techniques under Treatment Modalities at the end of this chapter. 6. Encourage client to explore underlying feelings that may be contributing to irrational fears, and to face them rather than suppress them. 	<ol style="list-style-type: none"> 1. At the panic level of anxiety, client may fear for his or her own life. 2. It is important to understand client's perception of the phobic object or situation to assist with the desensitization process. 3. Client must accept the reality of the situation (aspects that cannot change) before the work of reducing the fear can progress. 4. Allowing the client choices provides a measure of control and serves to increase feelings of self-worth. 5. Fear is decreased as the physical and psychological sensations diminish in response to repeated exposure to the phobic stimulus under nonthreatening conditions. 6. Exploring underlying feelings may help the client to confront unresolved conflicts and develop more adaptive coping abilities.

Nursing Diagnosis: SOCIAL ISOLATION

Related to: Fears of being in a place from which one is unable to escape

Evidenced by: Staying alone; refusing to leave room or home

Outcome Criteria	Nursing Interventions	Rationale
Client will voluntarily participate in group activities with peers.	<ol style="list-style-type: none"> 1. Convey an accepting attitude and unconditional positive regard. Make brief, frequent contacts. Be honest and keep all promises. 2. Attend group activities with client if it may be frightening for him or her. 3. Be cautious with touch. Allow client extra space and an avenue for exit if anxiety becomes overwhelming. 	<ol style="list-style-type: none"> 1. These interventions increase feelings of self-worth and facilitate a trusting relationship. 2. The presence of a trusted individual provides emotional security. 3. A person in panic anxiety may perceive touch as threatening.

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Care Plans: *Phobic Disorders (Cont'd)*

Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none">Administer tranquilizing medications as ordered by physician. Monitor for effectiveness and adverse side effects.Discuss with client signs and symptoms of increasing anxiety and techniques to interrupt the response (e.g., relaxation exercises, “thought stopping”)Give recognition and positive reinforcement for voluntary interactions with others.	<ol style="list-style-type: none">Antianxiety medications, such as diazepam, chlor-diazepoxide, or alprazolam help to reduce level of anxiety in most individuals, thereby facilitating interactions with others.Maladaptive behaviors, such as withdrawal and suspiciousness, are manifested during times of increased anxiety.This enhances self-esteem and encourages repetition of acceptable behaviors.

Care Plan for the Client with Obsessive-Compulsive Disorder

Nursing Diagnosis: INEFFECTIVE COPING

Related to: Underdeveloped ego, punitive superego, avoidance learning, possible biochemical changes

Evidenced by: Ritualistic behavior or obsessive thoughts

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate ability to cope effectively without resorting to obsessive-compulsive behaviors or increased dependency.	<ol style="list-style-type: none"> 1. Work with client to determine types of situations that increase anxiety and result in ritualistic behaviors. 2. Initially meet the client's dependency needs as required. Encourage independence and give positive reinforcement for independent behaviors. 3. In the beginning of treatment, allow plenty of time for rituals. Do not be judgmental or verbalize disapproval of the behavior. 4. Support client's efforts to explore the meaning and purpose of the behavior. 5. Provide structured schedule of activities for client, including adequate time for completion of rituals. 6. Gradually begin to limit amount of time allotted for ritualistic behavior as client becomes more involved in unit activities. 7. Give positive reinforcement for nonritualistic behaviors. 8. Help client learn ways of interrupting obsessive thoughts and ritualistic behavior with techniques such as thought stopping, relaxation, and physical exercise. 	<ol style="list-style-type: none"> 1. Recognition of precipitating factors is the first step in teaching the client to interrupt the escalating anxiety. 2. Sudden and complete elimination of all avenues for dependency would create intense anxiety on the part of the client. Positive reinforcement enhances self-esteem and encourages repetition of desired behaviors. 3. To deny client this activity may precipitate panic anxiety. 4. Client may be unaware of the relationship between emotional problems and compulsive behaviors. Recognition is important before change can occur. 5. Structure provides a feeling of security for the anxious client. 6. Anxiety is minimized when client is able to replace ritualistic behaviors with more adaptive ones. 7. Positive reinforcement enhances self-esteem and encourages repetition of desired behaviors. 8. Knowledge and practice of coping techniques that are more adaptive will help client change and let go of maladaptive responses to anxiety.

Nursing Diagnosis: INEFFECTIVE ROLE PERFORMANCE

Related to: Need to perform rituals

Evidenced by: Inability to fulfill usual patterns of responsibility

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to resume role-related responsibilities.	<ol style="list-style-type: none"> 1. Determine client's previous role within the family and extent to which this role is altered by the illness. Identify roles of other family members. 2. Discuss client's perception of role expectations. 3. Encourage client to discuss conflicts evident within the family system. Identify how client and other family members have responded to this conflict. 	<ol style="list-style-type: none"> 1. This is important assessment data for formulating an appropriate plan of care. 2. Determine if client's perception of his or her role expectations are realistic. 3. Identifying specific stressors, as well as adaptive and maladaptive responses within the system, is necessary before assistance can be provided in an effort to create change.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 4. Explore available options for changes or adjustments in role. Practice through role-play. 5. Encourage family participation in the development of plans to effect positive change, and work to resolve the cause of the anxiety from which the client seeks relief through use of ritualistic behaviors. 6. Give client lots of positive reinforcement for ability to resume role responsibilities by decreasing need for ritualistic behaviors. 	<ol style="list-style-type: none"> 4. Planning and rehearsal of potential role transitions can reduce anxiety. 5. Input from the individuals who will be directly involved in the change will increase the likelihood of a positive outcome. 6. Positive reinforcement enhances self-esteem and promotes repetition of desired behaviors

Care Plan for the Client with a Psychophysiological Disorder

Nursing Diagnosis: INEFFECTIVE COPING

Related to: Repressed anxiety and inadequate coping methods

Evidenced by: Initiation or exacerbation of physical illness

Outcome Criteria	Nursing Interventions	Rationale
Client will achieve physical wellness and demonstrate the ability to prevent exacerbation of physical symptoms as a coping mechanism in response to stress.	<ol style="list-style-type: none"> 1. Perform thorough physical assessment. 2. Monitor laboratory values, vital signs, intake and output, and other assessments. 3. Together with the client, identify goals of care and ways in which he or she may best achieve those goals. Client may need assistance with problem solving. 4. Encourage client to discuss current life situations that he or she perceives as stressful and the feelings associated with each. 5. During client's discussion, note times during which a sense of powerlessness or loss of control over life situations emerges. Focus on these times and discuss ways in which the client may maintain a feeling of control. 6. As client becomes able to discuss feelings more openly, assist him or her, in a nonthreatening manner, to relate certain feelings to the appearance of physical symptoms. 7. Discuss stressful times when physical symptoms did not appear and the adaptive coping strategies that were used during those situations. Therapy is facilitated by identifying areas of strength and using them to the client's benefit. Provide positive reinforcement for adaptive coping mechanisms used. Suggest alternative coping strategies, but allow client to determine which can best be incorporated into his or her lifestyle. 8. Help client to identify a resource within the community (friend, significant other, group) to use as a support system for the expression of feelings. 	<ol style="list-style-type: none"> 1. Physical assessment is necessary to determine specific care required for client's physical condition. 2. This is necessary to maintain an accurate ongoing appraisal. 3. Personal involvement in his or her own care provides a feeling of control and increases chances for positive outcomes. 4. Verbalization of true feelings in a nonthreatening environment may help client come to terms with unresolved issues. 5. A sense of self-worth develops and is maintained when an individual feels power over his or her own life situations. 6. Client may be unaware of the relationship between physical symptoms and emotional problems. 7. Positive reinforcement enhances self-esteem and encourages repetition of desired behaviors. Client may require assistance with problem solving but must be allowed and encouraged to make decisions independently. 8. A positive support system may help to prevent maladaptive coping through physical illness.

Nursing Diagnosis: DEFICIENT KNOWLEDGE

Related to: Psychological factors affecting medical condition

Evidenced by: Statements such as "I don't know why the doctor put me on the psychiatric unit. I have a physical problem."

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to verbalize psychological factors affecting his or her physical condition.	<ol style="list-style-type: none"> 1. Assess client's level of knowledge regarding effects of psychological problems on the body. 2. Assess client's level of anxiety and readiness to learn. 	<ol style="list-style-type: none"> 1. An adequate database is necessary for the development of an effective teaching plan. 2. Learning does not occur beyond the moderate level of anxiety.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 3. Discuss physical examinations and laboratory tests that have been conducted. Explain purpose and results of each. 4. Explore feelings and fears held by client. Go slowly. These feelings may have been suppressed or repressed for so long that their disclosure may be a very painful experience. Be supportive. 5. Have client keep a diary of appearance, duration, and intensity of physical symptoms. A separate record of situations that the client finds especially stressful should also be kept. 6. Help client identify needs that are being met through the sick role. Together, formulate more adaptive means for fulfilling these needs. Practice by role-playing. 7. Provide instruction in assertiveness techniques, especially the ability to recognize the differences among passive, assertive, and aggressive behaviors and the importance of respecting the rights of others while protecting one's own basic rights. 8. Discuss adaptive methods of stress management, such as relaxation techniques, physical exercise, meditation, breathing exercises, and autogenics. 	<ol style="list-style-type: none"> 3. Client has the right to know about and accept or refuse any medical treatment. 4. Expression of feelings in the presence of a trusted individual and in a nonthreatening environment may encourage the individual to confront unresolved feelings. 5. Comparison of these records may provide objective data from which to observe the relationship between physical symptoms and stress. 6. Repetition through practice serves to reduce discomfort in the actual situation. 7. These skills will preserve client's self-esteem and improve his or her ability to form satisfactory interpersonal relationships. 8. Use of these adaptive techniques may decrease appearance of physical symptoms in response to stress.

Care Plan for the Client With a Somatoform Disorder

Nursing Diagnosis: INEFFECTIVE COPING

Related to: Repressed anxiety and unmet dependency needs

Evidenced by: Verbalization of numerous physical complaints in the absence of any pathophysiological evidence; total focus on the self, and physical symptoms.

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate ability to cope with stress by means other than preoccupation with physical symptoms.	<ol style="list-style-type: none"> 1. Monitor physician's ongoing assessments, laboratory reports, and other data to maintain assurance that possibility of organic pathology is clearly ruled out. Review findings with client. 2. Recognize and accept that the physical complaint is real to the client, even though no organic etiology can be identified. 3. Identify what the physical symptoms are providing for the client: increased dependency, attention, distraction from other problems. 4. Initially, fulfill the client's most urgent dependency needs, but gradually withdraw attention to physical symptoms. Minimize time given in response to physical complaints. 5. Explain to client that any new physical complaints will be referred to the physician and give no further attention to them. Ensure physician's assessment of the complaint. 6. Encourage client to verbalize fears and anxieties. Explain that attention will be withdrawn if rumination about physical complaints begins. Follow through. 7. Discuss possible alternative coping strategies client may use in response to stress (e.g., relaxation exercises, physical activities, assertiveness skills). Give positive reinforcement for use of these alternatives. 8. Help client identify ways to achieve recognition from others without resorting to physical complaints. 	<ol style="list-style-type: none"> 1. Accurate medical assessment is vital for the provision of adequate and appropriate care. Honest explanation may help client understand psychological implications. 2. Denial of the client's feelings is nontherapeutic and interferes with establishment of a trusting relationship. 3. Identification of underlying motivation is important in assisting the client with problem resolution. 4. Anxiety and maladaptive behaviors will increase if dependency needs are ignored initially. Gradual withdrawal of positive reinforcement will discourage repetition of maladaptive behaviors. 5. The possibility of organic pathology must always be considered. Failure to do so could jeopardize client safety. 6. Without consistency of limit-setting, change will not occur. 7. Client may need help with problem solving. Positive reinforcement encourages repetition. 8. Positive recognition from others enhances self-esteem and minimizes the need for attention through maladaptive behaviors.

Nursing Diagnosis: CHRONIC PAIN

Related to: Repressed anxiety and learned maladaptive coping skills

Evidenced by: Verbal complaints of pain, with evidence of contributing psychological factors, and excessive use of analgesics

Outcome Criteria	Nursing Interventions	Rationale
Client will verbalize relief from pain and demonstrate more adaptive coping strategies for dealing with life situation.	<ol style="list-style-type: none"> 1. Monitor physician's ongoing assessments and laboratory reports. 	<ol style="list-style-type: none"> 1. Organic pathology must be clearly ruled out.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 2. Recognize and accept that the pain is real to the client even though no organic etiology can be identified. 3. Observe and record the duration and intensity of the pain. Note factors that precipitate the onset of pain. 4. Provide pain medication as prescribed by physician. 5. Provide nursing comfort measures (e.g., backrub, warm bath, heating pad) with a matter-of-fact approach that does not reinforce the pain behavior. 6. Offer attention at times when client is not focusing on pain. 7. Identify activities that serve to distract client from focus on self and pain. 	<ol style="list-style-type: none"> 2. Denying the client's feelings is nontherapeutic and hinders the development of a trusting relationship. 3. Identification of the precipitating stressor is important for assessment and care planning. 4. Client comfort and safety are nursing priorities. 5. Comfort measures may provide some relief from pain. Secondary gains from physical symptoms may prolong maladaptive behaviors. 6. Positive reinforcement encourages repetition of adaptive behaviors. 7. These distracters serve in a therapeutic manner as a transition from focus on self and pain to focus on unresolved psychological issues that may be contributing to the pain.
	<ol style="list-style-type: none"> 8. Encourage verbalization of feelings. Explore meaning that pain holds for client. Help client connect symptoms of pain to times of increased anxiety and to identify specific situations that cause anxiety to rise. 9. Encourage client to identify alternative methods of coping with stress. 	<ol style="list-style-type: none"> 8. Verbalization of feelings in a nonthreatening environment facilitates expression and resolution of disturbing emotional issues. 9. Alternative stress management techniques may avert the use of pain as a maladaptive response to stress.
	<ol style="list-style-type: none"> 10. Explore ways to intervene as symptoms begin to intensify (e.g., visual or auditory distractions, mental imagery, deep-breathing exercises, application of hot or cold compresses, relaxation exercises). 11. Provide positive reinforcement for times when client is not focusing on pain. 	<ol style="list-style-type: none"> 10. These techniques are adaptive ways of preventing the pain from becoming disabling. 11. Positive reinforcement, in the form of the nurse's presence and attention may encourage a continuation of more adaptive behaviors.

Nursing Diagnosis: FEAR (OF HAVING A SERIOUS DISEASE)

Related to: Past experience with life-threatening illness of self or significant others

Evidenced by: Preoccupation with and unrealistic interpretation of bodily signs and sensations

Outcome Criteria	Nursing Interventions	Rationale
Client will verbalize irrationality of fear and interpret bodily sensations correctly.	<ol style="list-style-type: none"> 1. Monitor physician's ongoing assessments and laboratory reports. 2. Refer all new physical complaints to physician. 	<ol style="list-style-type: none"> 1. Organic pathology must be clearly ruled out. 2. To assume that all physical complaints are hypochondriacal would place client's safety in jeopardy.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 3. Assess function client's illness is fulfilling (e.g., unfulfilled needs for dependency, nurturing, caring, attention, or control). 4. Identify times during which preoccupation with physical symptoms escalates. Determine extent of correlation of physical complaints with times of increased anxiety. 5. Convey empathy. Let client know that you understand how a specific symptom may conjure up fears of previous life-threatening illness. 6. Initially allow client a limited amount of time (e.g., 10 minutes each hour) to discuss physical symptoms. 	<ol style="list-style-type: none"> 3. This information may provide insight into reasons for maladaptive behavior and provide direction for planning client care. 4. Client is unaware of the psychosocial implications of the physical complaints. Knowledge of the relationship is the first step in the process for creating change. 5. Unconditional acceptance and empathy promote a therapeutic nurse/client relationship.
	<ol style="list-style-type: none"> 7. Help client determine what techniques may be most useful to implement when fear and anxiety are exacerbated (e.g., relaxation techniques, mental imagery, thought-stopping techniques, physical exercise). 8. Gradually increase the limit on amount of time spent each hour in discussing physical symptoms. If client violates the limits, withdraw attention. 9. Encourage client to discuss feelings associated with fear of serious illness. 	<ol style="list-style-type: none"> 6. Because this has been his or her primary method of coping for so long, complete prohibition of this activity would likely raise client's anxiety level significantly, exacerbating the hypochondriacal behavior. 7. All of these techniques are effective to reduce anxiety and may assist client in the transition from focusing on fear of physical illness to the discussion of honest feelings. 8. Lack of positive reinforcement may help to extinguish maladaptive behavior. 9. Verbalization of feelings in a nonthreatening environment facilitates expression and resolution of disturbing emotional issues. When the client can express feelings directly, there is less need to express them through physical symptoms.
	<ol style="list-style-type: none"> 10. Role-play the client's plan for dealing with the fear the next time it assumes control and before it becomes disabling through the exacerbation of physical symptoms. 	<ol style="list-style-type: none"> 10. Anxiety and fears are minimized when client has achieved a degree of comfort through practicing a plan for dealing with stressful situations in the future.

Nursing Diagnosis: DISTURBED SENSORY PERCEPTION

Related to: Repressed severe anxiety

Evidenced by: Loss or alteration in physical functioning, without evidence of organic pathology; "la belle indifference"

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate recovery of lost or altered function.	<ol style="list-style-type: none"> 1. Monitor physician's ongoing assessments, laboratory reports, and other data to ensure organic pathology is clearly ruled out. 2. Identify primary or secondary gains that the physical symptom is providing for the client (e.g., increased dependency, attention, protection from a stressful event). 	<ol style="list-style-type: none"> 1. Failure to do so may jeopardize client safety. 2. Primary and secondary gains are etiological factors and may be used to assist in problem resolution.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> Do not focus on the disability, and encourage client to be as independent as possible. Intervene only when client requires assistance. Do not allow the client to use the disability as a manipulative tool to avoid participation in therapeutic activities. Withdraw attention if client continues to focus on physical limitation. Encourage client to verbalize fears and anxieties. Help identify physical symptoms as a coping mechanism that is used in times of extreme stress. Help client identify coping mechanisms to use when faced with stressful situations, rather than retreating from reality with a physical disability. Give positive reinforcement for identification or demonstration of alternative, more adaptive coping strategies. 	<ol style="list-style-type: none"> Positive reinforcement would encourage continual use of the maladaptive response to achieve secondary gains, such as dependency. Lack of reinforcement may help to extinguish the maladaptive response. Clients with conversion disorder are usually unaware of the psychological implications of their illness. Client needs assistance with problem solving at this severe level of anxiety. Positive reinforcement enhances self-esteem and encourages repetition of desirable behaviors.

Nursing Diagnosis: DISTURBED BODY IMAGE

Related to: Repressed severe anxiety

Evidenced by: Preoccupation with imagined defect; verbalizations that are out of proportion to any actual physical abnormality that may exist; numerous visits to plastic surgeons or dermatologists seeking relief

Outcome Criteria	Nursing Interventions	Rationale
Client will verbalize realistic perception of body appearance.	<ol style="list-style-type: none"> Assess client's perception of body image. Keep in mind that this image is real to the client. Help client to see that body image is distorted or out of proportion in relation to the significance of an actual physical anomaly. Encourage verbalization of fears and anxieties associated with identified stressful life situations. Discuss alternative adaptive coping strategies. Involve client in activities that reinforce a positive sense of self not based on appearance. Make referrals to support groups for individuals with similar histories (e.g., Adult Children of Alcoholics, Victims of Incest, Survivors of Suicide, Adults Abused as Children). 	<ol style="list-style-type: none"> Assessment information is necessary in developing an accurate plan of care. Denial of the client's feelings impedes the development of a trusting, therapeutic relationship. Recognition that a misperception exists is necessary before the client can accept reality and reduce the significance of the imagined defect. Verbalization of feelings with a trusted individual may help the client come to terms with unresolved issues. Knowledge of alternative coping strategies may help the client respond to stress more adaptively in the future. When the client is able to develop self-satisfaction based on accomplishments and unconditional acceptance, significance of the imagined defect or minor physical anomaly will diminish. Having a support group of understanding, empathic peers can help the client accept the reality of the situation, correct distorted perceptions, and make adaptive life changes.

Care Plan for the Client With a Dissociative Disorder

Nursing Diagnosis: DISTURBED THOUGHT PROCESSES

Related to: Severe psychological stress and repression of anxiety

Evidenced by: Loss of Memory

Outcome Criteria	Nursing Interventions	Rationale
Client will recover deficits in memory and develop more adaptive coping mechanisms to deal with stress.	<ol style="list-style-type: none"> 1. Obtain as much information as possible about the client from family and significant others if possible. Consider likes, dislikes, important people, activities, music, and pets. 2. Do not flood client with data regarding his or her past life. 3. Expose client to stimuli that represent pleasant experiences from the past, such as smells associated with enjoyable activities, beloved pets, and music known to have been pleasurable. As memory begins to return, engage client in activities that may provide additional stimulation. 4. Encourage client to discuss situations that have been especially stressful and to explore the feelings associated with those times. 5. Identify specific conflicts that remain unresolved, and assist client to identify possible solutions. Provide instruction regarding more adaptive ways to respond to anxiety. 	<ol style="list-style-type: none"> 1. A comprehensive baseline assessment is important for the development of an effective plan of care. 2. Individuals who are exposed to painful information from which the amnesia is providing protection may decompensate even further into a psychotic state. 3. Recall may occur during activities that simulate life experiences. 4. Verbalization of feelings in a nonthreatening environment may help client come to terms with unresolved issues that may be contributing to the dissociative process. 5. Unless these underlying conflicts are resolved, any improvement in coping behaviors must be viewed as temporary.

Nursing Diagnosis: INEFFECTIVE COPING

Related to: Severe psychosocial stressor or substance abuse and repressed severe anxiety

Evidenced by: Sudden travel away from home with inability to recall previous identity

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate more adaptive ways of coping in stressful situations than resorting to dissociation.	<ol style="list-style-type: none"> 1. Reassure client of safety and security through your presence. Dissociative behaviors may be frightening to the client. 2. Identify stressor that precipitated severe anxiety. 3. Explore feelings that client experienced in response to the stressor. Help client understand that the disequilibrium felt is acceptable in times of severe stress. 	<ol style="list-style-type: none"> 1. Presence of a trusted individual provides feeling of security and assurance of freedom from harm. 2. This information is necessary for the development of an effective plan of client care and problem resolution. 3. Client's self-esteem is preserved by the knowledge that others may experience these behaviors under similar circumstances.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 4. As anxiety level decreases and memory returns, use exploration and an accepting, nonthreatening environment to encourage client to identify repressed traumatic experiences that contribute to chronic anxiety. 5. Have client identify methods of coping with stress in the past and determine whether the response was adaptive or maladaptive. 6. Help client define more adaptive coping strategies. Make suggestions of alternatives that might be tried. Examine benefits and consequences of each alternative. Assist client in the selection of those that are most appropriate. 7. Provide positive reinforcement for client's attempts to change. 8. Identify community resources individual may use for support if past maladaptive coping patterns return. 	<ol style="list-style-type: none"> 4. Client must confront and deal with painful issues to achieve resolution. 5. In times of extreme anxiety, client is unable to evaluate appropriateness of response. This information is necessary for client to develop a plan of action for the future. 6. Depending on current level of anxiety, client may require assistance with problem solving and decision making. 7. Positive reinforcement enhances self-esteem and encourages repetition of desired behaviors. 8. Knowledge alone that this type of support exists may provide the client with a feeling of security. Use of the resources may help to keep the client from decompensating.

Nursing Diagnosis: DISTURBED PERSONAL IDENTITY

Related to: Childhood trauma/abuse

Evidenced by: The presence of more than one personality within the individual

Outcome Criteria	Nursing Interventions	Rationale
Client will verbalize understanding about the existence of multiple personalities in the self, the reason for their existence, and the importance of eventual integration of the personalities into one.	<ol style="list-style-type: none"> 1. The nurse must develop a trusting relationship with the original personality and with each of the subpersonalities. 2. Help client understand the existence of the subpersonalities and the need each serves in the personal identity of the individual. 3. Help client identify stressful situations that precipitate transition from one personality to another. Carefully observe and record these transitions. 4. Use nursing interventions necessary to deal with maladaptive behaviors associated with individual subpersonalities. For example, if one personality is suicidal, precautions must be taken to guard against client's self-harm. If another personality has a tendency toward physical hostility, precautions must be taken to protect others. 	<ol style="list-style-type: none"> 1. Trust is the basis of a therapeutic relationship. Each of the personalities views itself as a separate entity and must initially be treated as such. 2. Client may initially be unaware of the dissociative response. Knowledge of the needs each personality fulfills is the first step in the integration process. 3. Identification of stressors is required to assist client in responding more adaptively and to eliminate the need for transition to another personality. 4. The safety of client and others is a nursing priority.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 5. Help subpersonalities to understand that their “being” will not be destroyed but will be integrated into a unified identity within the individual. 6. Provide support during disclosure of painful experiences and reassurance when client becomes discouraged with lengthy treatment. 	<ol style="list-style-type: none"> 5. Because subpersonalities function as separate entities, the idea of total elimination generates fear and defensiveness. 6. Positive reinforcement may encourage repetition of desirable behaviors.

Nursing Diagnosis: DISTURBED SENSORY PERCEPTION (VISUAL/KINESTHETIC)

Related to: Severe psychological stress and repression of anxiety

Evidenced by: Alteration in the perception or experience of the self or the environment

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate the ability to perceive stimuli correctly and maintain a sense of reality during stressful situations.	<ol style="list-style-type: none"> 1. Provide support and encouragement during times of depersonalization Clients manifesting these symptoms may express fear and anxiety at experiencing such behaviors. They do not understand the response and may express a fear of going insane. 2. Explain the depersonalization behaviors and the purpose they usually serve for the client. 3. Explain the relationship between severe anxiety and depersonalization behaviors. Help relate these behaviors to times of severe psychological stress that client has experienced. 4. Explore past experiences and possibly repressed painful situations, such as trauma or abuse. 5. Discuss these painful experiences with client, and encourage him or her to deal with the feelings associated with these situations. Work to resolve the conflicts these repressed feelings have nurtured. 6. Discuss ways the client may more adaptively respond to stress, and use role-play to practice these new methods. 	<ol style="list-style-type: none"> 1. Support and encouragement from a trusted individual provide a feeling of security when fears and anxieties are manifested. 2. This knowledge may help to minimize fears and anxieties associated with their occurrence. 3. The client may be unaware that the occurrence of depersonalization behaviors is related to severe anxiety. Knowledge of this relationship is the first step in the process of behavioral change. 4. Traumatic experiences may predispose individuals to dissociative disorders. 5. Conflict resolution will serve to decrease the need for the dissociative response to anxiety. 6. Having practiced through role-play helps to prepare client to face stressful situations by using these new behaviors when they occur in real life.

Care Plan for the Client with Post-Traumatic Stress Disorder

Nursing Diagnosis: POST-TRAUMA SYNDROME

Related to: Distressing event considered outside the range of usual human experience

Evidenced by: Flashbacks, intrusive recollections, nightmares, psychological numbness related to the event, dissociation, or amnesia

Outcome Criteria	Nursing Interventions	Rationale
The client will integrate the traumatic experience into his or her persona, renew significant relationships, and establish meaningful goals for the future.	<ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> a. Assign the same staff as often as possible. b. Use a nonthreatening, matter-of-fact, but friendly approach. c. Respect client's wishes regarding interaction with individuals of opposite sex at this time (especially important if the trauma was rape). d. Be consistent; keep all promises; convey acceptance; spend time with client. 2. Stay with client during periods of flashbacks and nightmares. Offer reassurance of safety and security and assure client that these symptoms are common following a trauma of the magnitude he or she has experienced. 3. Obtain accurate history from significant others about the trauma and the client's specific response. 4. Encourage the client to talk about the trauma at his or her own pace. Provide a nonthreatening, private environment, and include a significant other if the client wishes. Acknowledge and validate client's feelings as they are expressed. 5. Discuss coping strategies used in response to the trauma and those used during stressful situations in the past. Determine those that have been most helpful, and discuss alternative strategies for the future. Include available support systems, including religious and cultural influences. Identify maladaptive coping strategies (e.g., substance use, psychosomatic responses) and practice adaptive coping strategies for future post-trauma responses. 6. Assist the individual to try to comprehend the trauma if possible. Discuss feelings of vulnerability and the individual's "place" in the world following the trauma. 	<ol style="list-style-type: none"> 1. All of these interventions serve to facilitate a trusting relationship. 2. Presence of a trusted individual may calm fears for personal safety and reassure client that he or she is not "going crazy." 3. Various types of traumas elicit different responses in clients (e.g., human-engendered traumas often generate a greater amount of humiliation and guilt in victims than trauma associated with natural disasters). 4. This debriefing process is the first step in the progression toward resolution. 5. Resolution of the post-trauma response is largely dependent on the effectiveness of the coping strategies employed. 6. Post-trauma response is largely a function of the shattering of basic beliefs the victim holds about self and world. Assimilation of the event into one's persona requires that some meaning associated with the event be incorporated into the basic beliefs, which will affect how the individual eventually comes to reappraise self and world (Epstein, 1990).

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Nursing Diagnosis: DISFUNCTIONAL GRIEVING

Related to: Loss of self as perceived prior to the trauma or other actual/perceived losses incurred during/following the event

Evidenced by: Irritability and explosiveness, self-destructiveness, substance abuse, verbalization of survival guilt or guilt about behavior required for survival

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate progress in dealing with stages of grief and will verbalize a sense of optimism and hope for the future.	<ol style="list-style-type: none"> 1. Acknowledge feelings of guilt or self-blame that client may express. 2. Assess stage of grief in which the client is fixed. Discuss normalcy of feelings and behaviors related to stages of grief. 3. Assess impact of the trauma on client's ability to resume regular activities of daily living. Consider employment, marital relationship, and sleep patterns. 4. Assess for self-destructive ideas and behavior. 5. Assess for maladaptive coping strategies, such as substance abuse. 6. Identify available community resources from which the individual may seek assistance if problems with dysfunctional grieving persist. 	<ol style="list-style-type: none"> 1. Guilt at having survived a trauma in which others died is common. The client needs to discuss these feelings and recognize that he or she is not responsible for what happened but must take responsibility for own recovery. 2. Knowledge of grief stage is necessary for accurate intervention. Guilt may be generated if client believes it is unacceptable to have these feelings. Knowing they are normal can provide a sense of relief. 3. Following a trauma, individuals are at high risk for physical injury because of disruption in their ability to concentrate and problem-solve and because of inadequate sleep. Isolation and avoidance behaviors may interfere with interpersonal relatedness. 4. The trauma may result in feelings of hopelessness and worthlessness, leading to high risk for suicide. 5. These behaviors interfere with and delay the recovery process. 6. Support groups for victims of various types of traumas exist within most communities. The presence of support systems in the recovery environment has been identified as a major predictor in the successful recovery from trauma.

Care Plan for the Client with a Sexual Disorder

Nursing Diagnoses: SEXUAL DYSFUNCTION

Related to: Depression and conflict in relationship; biological or psychological contributing factors to the disorder

Evidenced by: Loss of sexual desire

Outcome Criteria	Nursing Interventions	Rationale
Client identifies stressors that contribute to loss of sexual desire. Client resumes sexual activity at level satisfactory to self and partner.	<ol style="list-style-type: none"> 1. Assess client's sexual history and previous level of satisfaction in sexual relationship. 2. Assess client's perception of the problem. 3. Help client determine time dimension associated with the onset of the problem and discuss what was happening in life situation at that time. 4. Assess client's level of energy. 5. Review medication regimen; observe for side effects. 6. Provide information regarding sexuality and sexual functioning. 7. Refer for additional counseling or sex therapy if required. 	<ol style="list-style-type: none"> 1. Client history establishes a database from which to work and provides a foundation for goal setting. 2. Client's idea of what constitutes a problem may differ from the nurse. It is the client's perception on which the goals of care must be established. 3. Stress in all areas of life will affect sexual functioning. Client may be unaware of correlation between stress and sexual dysfunction. 4. Fatigue decreases client's desire and enthusiasm for participation in sexual activity. 5. Many medications can affect libido. Evaluation of drug and individual response is important to ascertain whether drug is responsible for the problem. 6. Increasing knowledge and correcting misconceptions can decrease feelings of powerlessness and anxiety and facilitate problem resolution. 7. Client and partner may need additional or more in-depth assistance if problems in sexual relationship are severe or remain unresolved.

Nursing Diagnosis: INEFFECTIVE SEXUALITY PATTERNS

Related to: Conflicts with sexual orientation or variant preferences

Evidenced by: Expressed dissatisfaction with sexual behaviors (e.g., voyeurism, transvestism)

Outcome Criteria	Nursing Interventions	Rationale
Client will express satisfaction with own sexuality pattern.	<ol style="list-style-type: none"> 1. Take sexual history, noting client's expression of areas of dissatisfaction with sexual pattern. 2. Assess areas of stress in client's life and examine relationship with sexual partner. 3. Note cultural, social, ethnic, racial, and religious factors that may contribute to conflicts regarding variant sexual practices. 4. Be accepting and nonjudgmental. 	<ol style="list-style-type: none"> 1. Knowledge of what client perceives as the problem is essential for providing the type of assistance he or she may need. 2. Sexual variant behaviors are often associated with added stress in the client's life. 3. Client may be unaware of the influence these factors exert in creating feelings of shame and guilt. 4. Sexuality is a very personal and sensitive subject. The client is more likely to share this information if he or she does not fear being judged by the nurse.

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Care Plans: *Sexual Disorder (Cont'd)*

Outcome Criteria	Nursing Interventions	Rationale
	<p>5. Assist therapist in plan of behavior modification to help client decrease variant behaviors.</p> <p>6. Teach client that sexuality is a normal human response and is not synonymous with any one sexual act; that it involves complex interrelationships among self-concept, body image, personal history, family, cultural influences, and all interactions with others (Vande Vusse & Simandl, 1992).</p>	<p>5. Individuals with paraphilias are treated by specialists who have experience in modifying variant sexual behaviors. Nurses can intervene by providing assistance with implementation of the plan for behavior modification.</p> <p>6. If client feels abnormal or unlike everyone else, the self-concept is likely to be very low—even worthless. Helping him or her to see that feelings and motivations are common, even though the behavior is variant, may help to increase feelings of self-worth and desire to change behavior.</p>

Care Plan for Client With Eating Disorders: Anorexia Nervosa and Bulimia Nervosa

Nursing Diagnoses: IMBALANCED NUTRITION; LESS THAN BODY REQUIREMENTS; DEFICIENT FLUID VOLUME (RISK FOR OR ACTUAL)

Related to: Refusal to eat/drink; self-induced vomiting; abuse of laxatives/diuretics

Evidenced by: Loss of weight, poor muscle tone and skin turgor, lanugo, bradycardia, hypotension, cardiac arrhythmias, pale, dry mucous membranes

Outcome Criteria	Nursing Interventions	Rationale
Client will achieve 80% of target body weight and be free of signs and symptoms of malnutrition/dehydration.	<ol style="list-style-type: none"> 1. Dietitian will determine number of calories required to provide adequate nutrition and realistic weight gain. 2. Explain to the client that privileges and restrictions will be based on compliance with treatment and direct weight gain. Do not focus on food and eating. 3. Weigh client daily, immediately upon arising and following first voiding. Always use same scale, if possible. Keep strict record of intake and output. Assess skin turgor and integrity regularly. Assess moistness and color of oral mucous membranes. 4. Stay with client during established time for meals (usually 30 min) and for at least 1 hr following meals. 5. If weight loss occurs, initiate restrictions. Client must understand that if nutritional status deteriorates, tube feedings will begin. This is implemented in a matter-of-fact, nonpunitive way. 	<ol style="list-style-type: none"> 1. Adequate calories are required to allow a weight gain of 2–3 lb/wk. 2. The real issues have little to do with food or eating patterns. Focus on the control issues that have precipitated these behaviors. 3. These assessments are important measurements of nutritional status and provide guidelines for treatment. 4. Lengthy mealtimes put excessive focus on food and eating and provide client with attention and reinforcement. The hour following meals may be used to discard food stashed from tray or to engage in self-induced vomiting. 5. Restrictions and limits must be established and carried out consistently to avoid power struggles, to encourage client compliance with therapy, and to ensure client safety.

Nursing Diagnosis: INEFFECTIVE DENIAL

Related to: Retarded ego development and fear of losing the only aspect of life over which client perceives some control (eating)

Evidenced by: Inability to admit the impact of maladaptive eating behaviors on life pattern

Outcome Criteria	Nursing Interventions	Rationale
Client will verbalize understanding that eating behaviors are maladaptive and demonstrate the ability to cope with issues of control in a more adaptive manner.	<ol style="list-style-type: none"> 1. Develop a trusting relationship. Convey positive regard. 2. Avoid arguing or bargaining with the client who is resistant to treatment. State matter-of-factly which behaviors are unacceptable and how privileges will be restricted for noncompliance. 3. Encourage client to verbalize feelings regarding role within the family and issues related to dependence/independence, intense need for achievement, and sexuality. Help client recognize ways to gain control over these problematic areas of life. 	<ol style="list-style-type: none"> 1. Trust and unconditional acceptance promote dignity and self-worth and provide a strong foundation for a therapeutic relationship. 2. The person who is denying a problem and who has a weak ego will use manipulation to achieve control. Consistency and firmness by staff will decrease use of these behaviors. 3. When client feels control over major life issues, the need to gain control through maladaptive eating behaviors will diminish.

Continued on the following page

Nursing Diagnosis: DISTURBED BODY IMAGE/LOW SELF-ESTEEM

Related to: Retarded ego development and dysfunctional family system

Evidenced by: Distorted body image, difficulty accepting positive reinforcement, depressed mood, and self-deprecating thoughts

Outcome Criteria	Nursing Interventions	Rationale
<p>Client will acknowledge misperception of body image as “fat” and verbalize positive self-attributes.</p>	<ol style="list-style-type: none"> 1. Help client to develop a realistic perception of body image and relationship with food. Compare specific measurement of the client’s body with the client’s perceived calculations. 2. Promote feelings of control within the environment through participation and independent decision-making. Through positive feedback, help client learn to accept self as is, including weaknesses as well as strengths. 3. Help client realize that perfection is unrealistic, and explore this need with him or her. 	<ol style="list-style-type: none"> 1. There may be a large discrepancy between the actual body size and the client’s perception of body size. Client needs to recognize that the misperception of body image is unhealthy and that maintaining control through maladaptive eating behaviors is dangerous—even life threatening. 2. Client must come to understand that he or she is a capable, autonomous individual who can perform outside the family unit and who is not expected to be perfect. Control of his or her life must be achieved in other ways besides dieting and weight loss. 3. As client begins to feel better about self, identifies positive self-attributes, and develops the ability to accept certain personal inadequacies, the need for unrealistic achievement should diminish.

Care Plan for the Client with an Eating Disorder: Obesity

Nursing Diagnosis: IMBALANCED NUTRITION: MORE THAN BODY REQUIREMENTS

Related to: Compulsive Overeating

Evidenced by: Weight of more than 20% over expected body weight for age and height; BMI>30

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate change in eating patterns resulting in a steady weight loss.	<ol style="list-style-type: none"> 1. Encourage the client to keep a diary of food intake. 2. Discuss feelings and emotions associated with eating. 3. With input from the client, formulate an eating plan that includes food from the basic food groups with emphasis on low-fat intake. It is helpful to keep the plan as similar to client's usual eating pattern as possible. 4. Identify realistic increment goals for weekly weight loss. 5. Plan progressive exercise program tailored to individual goals and choice. 6. Discuss the probability of reaching plateaus when weight remains stable for extended periods. 7. Administer medications to assist with weight loss if ordered by physician. 	<ol style="list-style-type: none"> 1. A food diary provides the opportunity for client to gain a realistic picture of the amount of food ingested and provides a database on which to tailor the dietary program. 2. This helps to identify when client is eating to satisfy an emotional need rather than a physiological one. 3. Diet must eliminate calories while maintaining adequate nutrition. Client is more likely to stay on the eating plan if he or she is able to participate in its creation and it deviates as little as possible from usual types of foods. 4. Reasonable weight loss (1–2 lb/uk) results in more lasting effects. Excessive, rapid weight loss may result in fatigue and irritability and ultimately lead to failure in meeting goals for weight loss. Motivation is more easily sustained by meeting “stair-step” goals. 5. Exercise may enhance weight loss by burning calories and reducing appetite, increasing energy, toning muscles, and enhancing sense of well-being and accomplishment. Walking is an excellent choice for overweight individuals. 6. Client should know this is likely to happen as changes in metabolism occur. Plateaus cause frustration, and client may need additional support during these times to remain on the weight loss program. 7. Appetite-suppressant drugs (e.g., sibutramine) and others that have weight loss as a side effect (e.g., fluoxetine) may be helpful to someone who is morbidly obese. They should be used for this purpose for only a short period while the individual attempts to adjust to the new pattern of eating.

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Nursing Diagnosis: DISTURBED BODY IMAGE/LOW SELF-ESTEEM

Related to: Dissatisfaction with appearance

Evidenced by: Verbalization of negative feelings about the way he or she looks and desire to lose weight

Outcome Criteria	Nursing Interventions	Rationale
<p>Client will begin to accept self based on self-attributes rather than on appearance, while actively pursuing weight loss as desired.</p>	<ol style="list-style-type: none"> 1. Assess client's feelings and attitudes about being obese. 2. Ensure that the client has privacy during self-care activities. 3. Have client recall coping patterns related to food in family of origin and explore how these may affect current situation. 4. Determine client's motivation for weight loss and set goals. 5. Help client identify positive self-attributes. Focus on strengths and past accomplishments unrelated to physical appearance. 6. Refer client to support or therapy group. 	<ol style="list-style-type: none"> 1. Obesity and compulsive eating behaviors may have deep-rooted psychological implications, such as compensation for lack of love and nurturing or a defense against intimacy. 2. The obese individual may be sensitive or self-conscious about his or her body. 3. Parents are role models for their children. Maladaptive eating behaviors are learned within the family system and are supported through positive reinforcement. Food may be substituted by the parent for affection and love, and eating is associated with a feeling of satisfaction, becoming the primary defense. 4. The individual may harbor repressed feelings of hostility, which may be expressed inward on the self. Because of a poor self-concept, the person often has difficulty with relationships. When the motivation is to lose weight for someone else, successful weight loss is less likely to occur. 5. It is important that self-esteem not be tied solely to size of the body. Client needs to recognize that obesity need not interfere with positive feelings regarding self-concept and self-worth. 6. Support groups can provide companionship, increase motivation, decrease loneliness and social ostracism, and give practical solutions to common problems. Group therapy can be helpful in dealing with underlying psychological concerns.

Care Plan for the Client with Borderline Personality Disorder

Nursing Diagnosis: RISK FOR SELF-MUTILATION

Related to: Parental emotional deprivation (unresolved fears of abandonment)

Outcome Criteria	Nursing Interventions	Rationale
Client will not harm self.	<ol style="list-style-type: none"> 1. Observe client's behavior frequently. Do this through routine activities and interactions; avoid appearing watchful and suspicious. 2. Secure a verbal contract from client that he or she will seek out a staff member when the urge for self-mutilation is felt. 3. If self-mutilation occurs, care for client's wounds in a matter-of-fact manner. Do not give positive reinforcement to this behavior by offering sympathy or additional attention. 4. Encourage client to talk about feelings he or she was having just before this behavior occurred. 5. Act as a role model for appropriate expression of angry feelings, and give positive reinforcement to client when attempts to conform are made. 6. Remove all dangerous objects from client's environment. 7. If warranted by high acuity of the situation, staff may need to be assigned on a one-to-one basis. 	<ol style="list-style-type: none"> 1. Close observation is required so that intervention can occur if required to ensure client's (and others') safety. 2. Discussing feelings of self-harm with a trusted individual provides a degree of relief to the client. A contract gets the subject out in the open and places some of the responsibility for his or her safety with the client. An attitude of acceptance of the client as a worthwhile individual is conveyed. 3. Lack of attention to the maladaptive behavior may decrease repetition of its use. 4. To problem solve the situation with the client, knowledge of the precipitating factors is important. 5. It is vital that the client expresses angry feelings because suicide and other self-destructive behaviors are often viewed as response anger turned inward on the self. 6. Client safety is a nursing priority. 7. Because of their extreme fear of abandonment, clients with this disorder should not be left alone at a stressful time as it may cause an acute rise in anxiety and agitation levels.

Nursing Diagnosis: DYSFUNCTIONAL GRIEVING

Related to: Maternal deprivation during rapprochement phase of development (internalized as a loss, with fixation in anger stage of grieving process)

Evidenced by: Depressed mood, acting-out behaviors

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to identify true source of anger, accept ownership of the feelings, and express them in a socially acceptable manner in an effort to initiate progression through the grief process.	<ol style="list-style-type: none"> 1. Convey an accepting attitude—one that creates a nonthreatening environment for the client to express feelings. Be honest and keep all promises. 2. Identify the function that anger, frustration, and rage serve for the client. Allow him or her to express these feelings within reason. 	<ol style="list-style-type: none"> 1. An accepting attitude conveys to the client that you believe he or she is a worthwhile person. Trust is enhanced. 2. Verbalization of feelings in a nonthreatening environment may help client come to terms with unresolved issues.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 3. Encourage client to discharge pent-up anger through participation in large motor activities (e.g., brisk walks, jogging, physical exercises, volleyball, punching bag, exercise bike). 4. Explore with client the true source of the anger. This is a painful therapy that often leads to regression as the client deals with the feelings of early abandonment. 5. As anger is displaced onto the nurse or therapist, caution must be taken to guard against the negative effects of countertransference (see Chapter 5). These are very difficult clients having the capacity for eliciting a whole array of negative feelings from the therapist. 6. Explain the behaviors associated with the normal grieving process. Help the client recognize his or her position in this process. 7. Help client to understand appropriate ways to express anger. Give positive reinforcement for behaviors used to express anger appropriately. Act as a role model. 8. Set limits on acting-out behaviors and explain consequences of violation of those limits. Be supportive yet consistent and firm in caring for this client. 	<ol style="list-style-type: none"> 3. Physical exercise provides a safe and effective method for discharging pent-up tension. 4. Reconciliation of the feelings associated with this stage is necessary before progression through the grieving process can continue. 5. The existence of negative feelings by the nurse or therapist must be acknowledged, but they must not be allowed to interfere with the therapeutic process. 6. Knowledge of the acceptability of the feelings associated with normal grieving may help to relieve some of the guilt that these responses generate. 7. Positive reinforcement enhances self-esteem and encourages repetition of desirable behaviors. 8. Client lacks sufficient self-control to limit maladaptive behaviors, so assistance is required from staff. Without consistency on the part of all staff members working with this client, a positive outcome will not be achieved.

Nursing Diagnosis: IMPAIRED SOCIAL INTERACTION

Related to: Extreme fears of abandonment and engulfment

Evidenced by: Alternating clinging and distancing behaviors and staff splitting

Outcome Criteria	Nursing Interventions	Rationale
Client will exhibit no evidence of splitting or clinging and distancing behaviors in relationships with staff and/or peers.	<ol style="list-style-type: none"> 1. Encourage client to examine these behaviors (to recognize that they are occurring). 2. Help client realize that you will be available, without reinforcing dependent behaviors. 3. Give positive reinforcement for independent behaviors. 4. Rotate staff members who work with the client in order to avoid client developing dependence on particular individuals. 	<ol style="list-style-type: none"> 1. Client may be unaware of splitting or of clinging and distancing pattern of interaction with others. Recognition must occur before change can occur. 2. Knowledge of your availability may provide needed security for the client. 3. Positive reinforcement enhances self-esteem and encourages repetition of desirable behaviors. 4. Client must learn to relate to more than one staff member in an effort to decrease use of splitting and diminish fears of abandonment.

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Care Plans: *Borderline Personality Disorder (Cont'd)*

Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 5. Explore feelings that relate to fears of abandonment and engulfment with client. Help client understand that clinging and distancing behaviors are engendered by these fears. 6. Help client understand how these behaviors interfere with satisfactory relationships. 7. Assist client to work toward achievement of object constancy. Be available, without promoting dependency. 	<ol style="list-style-type: none"> 5. Exploration of feelings with a trusted individual may help client come to terms with unresolved issues. 6. Client may be unaware of others' perception of him or her and why these behaviors are not acceptable to others. 7. This may help client resolve fears of abandonment and develop the ability to establish satisfactory intimate relationships.

Care Plan for the Client with Antisocial Personality Disorder

Nursing Diagnosis: RISK FOR OTHER-DIRECTED VIOLENCE

Related to: Rage reactions, negative role-modeling, inability to tolerate frustration

Outcome Criteria	Nursing Interventions	Rationale
Client will not harm self or others.	<ol style="list-style-type: none"> 1. Convey an accepting attitude toward this client. Feelings of rejection are undoubtedly familiar to him or her. Work on development of trust. Be honest, keep all promises, and convey the message that it is not <i>him</i> or <i>her</i> but the <i>behavior</i> that is unacceptable. 2. Maintain low level of stimuli in client's environment (low lighting, few people, simple decor, low noise level). 3. Observe client's behavior frequently during routine activities and interactions; avoid appearing watchful and suspicious. 4. Remove all dangerous objects from client's environment. 5. Help client identify the true object of his or her hostility. 6. Encourage client to verbalize hostile feelings gradually. 7. Explore with client alternative ways of handling frustration (e.g., large motor skills that channel hostile energy into socially acceptable behaviors). 8. Staff should maintain and convey a calm attitude. 9. Have sufficient staff available to present a show of strength to client if necessary. 10. Administer tranquilizing medications as ordered by physician or request an order if necessary. Monitor for effectiveness and for adverse side effects. 	<ol style="list-style-type: none"> 1. An attitude of acceptance promotes feelings of self-worth. Trust is the basis on which a therapeutic relationship is established. 2. A stimulating environment may increase agitation and promote aggressive behavior. 3. Close observation is required so that intervention can occur if required to ensure client's (and others') safety. 4. Client safety is a nursing priority. 5. Because of weak ego development, client may be misusing the defense mechanism of displacement. Helping him or her recognize this in a nonthreatening manner may help reveal unresolved issues so that they may be confronted. 6. Verbalization of feelings in a nonthreatening environment may help client come to terms with unresolved issues. 7. Physically demanding activity helps to relieve pent-up tension. 8. Anxiety is contagious and can be transferred from staff to client. A calm attitude provides client with a feeling of safety and security. 9. This conveys to client evidence of control over the situation and provides some physical security for staff. 10. Antianxiety agents (e.g., diazepam, chlor-diazepoxide, oxazepam) produce a calming effect and may help to allay hostile behaviors (Note: Medications are not often prescribed for clients with this disorder because of these individuals' strong susceptibility to addictions.)

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Outcome Criteria	Nursing Interventions	Rationale
	<p>11. If client is not calmed by “talking down” or by medication, use of mechanical restraints may be necessary. Be sure to have sufficient staff available to assist. Follow protocol established by the institution in executing this intervention. The Joint Commission on Accreditation of Healthcare Organizations requires that the physician reevaluate and issue a new order for restraints every 4 hours for adults aged 18 and older. If the client has previously refused medication, administer it after restraints have been applied. Most states consider this intervention appropriate in emergency situations or in the event that a client is likely to harm self or others. Never use restraints as a punitive measure; they should only be used as a protective measure for a client who is out of control. Observe the client in restraints every 15 min (or according to institutional policy). Ensure that circulation to extremities is not compromised (check temperature, color, pulses). Assist client with needs related to nutrition, hydration, and elimination. Position client so that comfort is facilitated and aspiration can be prevented.</p> <p>12. As agitation decreases, assess client’s readiness for restraint removal or reduction. Remove one restraint at a time, while assessing client’s response.</p>	<p>11. Client safety is a nursing priority.</p> <p>12. This minimizes risk of injury to client and staff.</p>

Nursing Diagnosis: DEFENSIVE COPING

Related to: Dysfunctional family system

Evidenced by: Disregard for societal norms and laws, absence of guilty feelings, inability to delay gratification

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to follow rules and delay personal gratification.	<p>1. From the onset, client should be made aware of which behaviors are acceptable and which are not. Explain consequences of violation of the limits. A consequence must involve something of value to the client. All staff must be consistent in enforcing these limits. Consequences should be administered in a matter-of-fact manner immediately following the infraction.</p> <p>2. Do not attempt to coax or convince client to do the “right thing.” Do not use the words “You should (or shouldn’t)...”; instead, use “You will be expected to...”. The ideal would be for client to eventually internalize societal norms, beginning with this step-by-step, “either/or” approach (<i>either</i> you do [don’t do] this, <i>or</i> this will occur).</p> <p>3. Provide positive feedback or reward for acceptable behaviors.</p>	<p>1. Because client cannot (or will not) impose own limits on maladaptive behaviors, they must be delineated and enforced by staff. Undesirable consequences may help to decrease repetition of these behaviors.</p> <p>2. Explanations must be concise, concrete, and clear, with little or no capacity for misinterpretation.</p> <p>3. Positive reinforcement enhances self-esteem and encourages repetition of desirable behaviors.</p>

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 4. Begin to increase the length of time requirement for acceptable behavior to achieve the reward. For example, 2 hours of acceptable behavior may be exchanged for a phone call, 4 hours for 2 hours of television; 1 day of acceptable behavior for a recreational therapy bowling activity and 5 days for a weekend pass. 5. A milieu unit provides the appropriate environment for the client with antisocial personality. 6. Help client to gain insight into his or her own behaviors. Often these individuals rationalize to such an extent that they deny that what they have done is wrong (e.g., “The owner of this store has so much money, he’ll never miss the little bit I take. He has everything, and I have nothing. It’s not fair! I deserve to have some of what he has.”) 7. Talk about past behaviors with client. Discuss behaviors that are acceptable by society and those which are not. Help client identify ways in which he or she has exploited others. Encourage client to explore how he or she would feel if the circumstances were reversed. 8. Throughout the relationship with the client, maintain an attitude of “It is not <i>you</i> but your <i>behavior</i> that is unacceptable.” 	<ol style="list-style-type: none"> 4. This type of intervention may assist the client in learning to delay gratification. 5. The democratic approach, with specific rules and regulations, community meetings, and group therapy sessions emulates the type of societal situation, in which the client must learn to live. Feedback from peers is often more effective than confrontation from an authority figure. The client learns to follow the rules of the group as a positive step in the progression toward internalizing the rules of society. 6. Client must come to understand that certain behaviors will not be tolerated within the society and that severe consequences will be imposed upon those individuals who refuse to comply. Client must <i>want</i> to become a productive member of society before he or she can be helped. 7. An attempt may be made to enlighten the client to the sensitivity of others by promoting self-awareness in an effort to help the client gain insight into his or her own behavior. 8. An attitude of acceptance promotes feelings of dignity and self-worth.

Care Plan for the Child With Mental Retardation

Nursing Diagnosis: RISK FOR INJURY

Related to: Altered physical mobility or aggressive behavior

Outcome Criteria	Nursing Interventions	Rationale
Client will not experience injury.	<ol style="list-style-type: none"> 1. Create a safe environment for the client. 2. Ensure that small items are removed from area where client will be ambulating and sharp items are out of reach. 3. Store items that client uses frequently within easy reach. 4. Pad siderails and headboard of client with history of seizures. 5. Prevent physical aggression and acting out behaviors by learning to recognize signs that client is becoming agitated. 	1-5. Client safety is a nursing priority.

Nursing Diagnosis: SELF-CARE DEFICIT

Related to: Altered physical mobility or lack of maturity

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to participate in aspects of self-care.	<ol style="list-style-type: none"> 1. Identify aspects of self-care that may be within the client's capabilities. Work on one aspect of self-care at a time. Provide simple, concrete explanations. Offer positive feedback for efforts. 2. When one aspect of self-care has been mastered to the best of the client's ability, move on to another. Encourage independence but intervene when client is unable to perform. 	<ol style="list-style-type: none"> 1. Positive reinforcement enhances self-esteem and encourages repetition of desirable behaviors. 2. Client comfort and safety are nursing priorities.

Nursing Diagnosis: IMPAIRED VERBAL COMMUNICATION

Related to: Developmental alteration

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to communicate needs and desires to staff.	<ol style="list-style-type: none"> 1. Maintain consistency of staff assignment over time. 2. Anticipate and fulfill client's needs until satisfactory communication patterns are established. Learn (from family, if possible) special words client uses that are different from the norm. Identify nonverbal gestures or signals that client may use to convey needs if verbal communication is absent. Practice these communications skills repeatedly. 	<ol style="list-style-type: none"> 1. Consistency of staff assignments facilitates trust and the ability to understand client's actions and communications. 2. Some children with mental retardation, particularly at the severe level, can only learn by systematic habit training.

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Nursing Diagnosis: IMPAIRED SOCIAL INTERACTION

Related to: Speech deficiencies or difficulty adhering to conventional social behavior

Outcome Criteria	Nursing Interventions	Rationale
<p>Client will be able to interact with others using behaviors that are socially acceptable and appropriate to developmental level.</p>	<ol style="list-style-type: none"> 1. Remain with client during initial interactions with others on the unit. 2. Explain to other clients the meaning behind some of the client's nonverbal gestures and signals. Use simple language to explain to client which behaviors are acceptable and which are not. Establish a procedure for behavior modification with rewards for appropriate behaviors and aversive reinforcement for inappropriate behaviors. 	<ol style="list-style-type: none"> 1. Presence of a trusted individual provides a feeling of security. 2. Positive, negative, and aversive reinforcements can contribute to desired changes in behavior. These privileges and penalties are individually determined as staff learns the likes and dislikes of the client.

Care Plan for the Child With Autistic Disorder

Nursing Diagnosis: RISK FOR SELF-MUTILATION

Related to: Neurological alterations

Outcome Criteria	Nursing Interventions	Rationale
Client will not harm self.	<ol style="list-style-type: none"> 1. Work with the child on a one-to-one basis. 2. Try to determine if the self-mutilative behavior occurs in response to increasing anxiety, and if so, to what the anxiety may be attributed. 3. Try to intervene with a diversionary or replacement activity and offer nursing attention to the child as anxiety level starts to rise. 4. Protect the child when self-mutilative behaviors occur. Devices such as helmets padded hand mitts, or arm covers may provide protection when the risk for self-harm exists. 	<ol style="list-style-type: none"> 1. One-to-one interaction facilitates trust. 2. Mutilative behaviors may be averted if the cause can be determined and alleviated. 3. Diversion and replacement activities may provide needed feelings of security and substitute for self-mutilative behaviors. 4. Client safety is a priority nursing intervention.

Nursing Diagnosis: IMPAIRED SOCIAL INTERACTION

Related to: Inability to trust; neurological alterations

Outcome Criteria	Nursing Interventions	Rationale
Client will initiate social interactions with caregiver.	<ol style="list-style-type: none"> 1. Assign a limited number of caregivers to the child. Ensure that warmth, acceptance, and availability are conveyed. 2. Provide child with familiar objects, such as familiar toys or a blanket. Support child's attempts to interact with others. 3. Give positive reinforcement for eye contact with something acceptable to the child (e.g., food, familiar object). Gradually replace with social reinforcement (e.g., touch, smiling, hugging). 	<ol style="list-style-type: none"> 1. Warmth, acceptance, and availability, along with consistency of assignment, enhance the establishment and maintenance of a trusting relationship. 2. Familiar objects and presence of a trusted individual provide security during times of distress. 3. Being able to establish eye contact is essential to the child's ability to form satisfactory interpersonal relationships.

Nursing Diagnosis: IMPAIRED VERBAL COMMUNICATION

Related to: Withdrawal into the self; inadequate sensory stimulation; neurological alterations.

Outcome Criteria	Nursing Interventions	Rationale
Client will establish a means of communicating needs and desires to others.	<ol style="list-style-type: none"> 1. Maintain consistency in assignment of caregivers. 2. Anticipate and fulfill the child's needs until communication can be established. 3. Seek clarification and validation. 4. Give positive reinforcement when eye contact is used to convey nonverbal expressions. 	<ol style="list-style-type: none"> 1. Consistency facilitates trust and enhances the caregiver's ability to understand the child's attempts to communicate. 2. Anticipating needs helps to minimize frustration while the child is learning communication skills. 3. Validation ensures that the intended message has been conveyed. 4. Positive reinforcement increases self-esteem and encourages repetition.

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Nursing Diagnosis: DISTURBED PERSONAL IDENTITY

Related to: Inadequate sensory stimulation; neurological alterations

Outcome Criteria	Nursing Interventions	Rationale
Client will name own body parts as separate and individual from those of others.	<ol style="list-style-type: none"> 1. Assist child to recognize separateness during self-care activities, such as dressing and feeding. 2. Assist the child in learning to name own body parts. This can be facilitated by the use of mirrors, drawings, and pictures of the child. Encourage appropriate touching of, and being touched by others. 	<ol style="list-style-type: none"> 1. Recognition of body parts during dressing and feeding increases the child's awareness of self as separate from others. 2. All of these activities may help increase the child's awareness of self as separate from others.

Care Plan for the Child With Attention-Deficit/Hyperactivity Disorder

Nursing Diagnosis: RISK FOR INJURY

Related to: Impulsive and accident-prone behavior and the inability to perceive self-harm

Outcome Criteria	Nursing Interventions	Rationale
Client will be free of injury.	<ol style="list-style-type: none"> 1. Ensure that client has a safe environment. Remove objects from immediate area on which client could injure self as a result of random, hyperactive movements. 2. Identify deliberate behaviors that put the child at risk for injury. Institute consequences for repetition of this behavior. 3. If there is risk of injury associated with specific therapeutic activities, provide adequate supervision and assistance, or limit client's participation if adequate supervision is not possible. 	<ol style="list-style-type: none"> 1. Objects that are appropriate to the normal living situation can be hazardous to the child whose motor activities are out of control. 2. Behavior can be modified with aversive reinforcement. 3. Client safety is a nursing priority.

Nursing Diagnosis: IMPAIRED SOCIAL INTERACTION

Related to: Intrusive and immature behavior

Outcome Criteria	Nursing Interventions	Rationale
Client will observe limits set on intrusive behavior and will demonstrate ability to interact appropriately with others.	<ol style="list-style-type: none"> 1. Develop a trusting relationship with the child. Convey acceptance of the child separate from the unacceptable behavior. 2. Discuss with client which behaviors are and are not acceptable. Describe in a matter-of-fact manner the consequences of unacceptable behavior. Follow through. 3. Provide group situations for client. 	<ol style="list-style-type: none"> 1. Unconditional acceptance increases feelings of self-worth. 2. Aversive reinforcement can alter or extinguish undesirable behaviors. 3. Appropriate social behavior is often learned from the positive and negative feedback of peers.

Nursing Diagnosis: LOW SELF-ESTEEM

Related to: Dysfunctional family system and negative feedback

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate increased feelings of self-worth by verbalizing positive statements about self and exhibiting fewer demanding behaviors.	<ol style="list-style-type: none"> 1. Ensure that goals are realistic. 2. Plan activities that provide opportunities for success. 3. Convey unconditional acceptance and positive regard. 4. Offer recognition of successful endeavors and positive reinforcement for attempts made. Give immediate positive feedback for acceptable behavior. 	<ol style="list-style-type: none"> 1. Unrealistic goals set client up for failure, which diminishes self-esteem. 2. Success enhances self-esteem. 3. Affirmation of client as a worthwhile human being may increase self-esteem 4. Positive reinforcement enhances self-esteem and may increase the desired behaviors.

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Care Plans: Attention-Deficit/Hyperactivity Disorder (Cont'd)

Nursing Diagnosis: NONCOMPLIANCE (WITH TASK EXPECTATIONS)

Related to: Low frustration tolerance and short attention span

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to complete assigned tasks independently or with a minimum of assistance.	<ol style="list-style-type: none"> 1. Provide an environment for task efforts that is as free of distractions as possible. 2. Provide assistance on a one-to-one basis, beginning with simple, concrete instructions. 3. Ask client to repeat instructions to you. 4. Establish goals that allow client to complete a part of the task, rewarding completion of each step with a break for physical activity. 5. Gradually decrease the amount of assistance given, while assuring the client that assistance is still available if deemed necessary. 	<ol style="list-style-type: none"> 1. Client is highly distractible and is unable to perform in the presence of even minimal stimulation. 2. Client lacks the ability to assimilate information that is complicated or has abstract meaning. 3. Repetition of the instructions helps to determine client's level of comprehension. 4. Short-term goals are not as overwhelming to one with such a short attention span. The positive reinforcement (physical activity) increases self-esteem and provides incentive for client to pursue the task to completion. 5. This encourages the client to perform independently while providing a feeling of security with the presence of a trusted individual.

Care Plan for Child/Adolescent With Conduct Disorder

Nursing Diagnosis: RISK FOR OTHER-DIRECTED VIOLENCE

Related to: Characteristics of temperament, peer rejection, negative parental role models, dysfunctional family dynamics

Outcome Criteria	Nursing Interventions	Rationale
Client will not harm others or others' property.	<ol style="list-style-type: none"> 1. Observe client's behavior frequently through routine activities and interactions. Become aware of behaviors that indicate a rise in agitation. 2. Redirect violent behavior with physical outlets for suppressed anger and frustration. 3. Encourage client to express anger and act as a role model for appropriate expression of anger. 4. Ensure that a sufficient number of staff is available to indicate a show of strength if necessary. 5. Administer tranquilizing medication, if ordered, or use mechanical restraints or isolation room only if situation cannot be controlled with less restrictive means. 	<ol style="list-style-type: none"> 1. Recognition of behaviors that precede the onset of aggression may provide the opportunity to intervene before violence occurs. 2. Excess energy is released through physical activities inducing a feeling of relaxation. 3. Discussion of situations that create anger may lead to more effective ways of dealing with them. 4. This conveys an evidence of control over the situation and provides physical security for staff. 5. It is the client's right to expect the use of techniques that ensure safety of the client and others by the least restrictive means.

Nursing Diagnosis: IMPAIRED SOCIAL INTERACTION

Related to: Negative parental role models; impaired peer relations leading to inappropriate social behavior

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to interact with staff and peers using age-appropriate, acceptable behaviors.	<ol style="list-style-type: none"> 1. Develop a trusting relationship with the client. Convey acceptance of the person separate from the unacceptable behavior. 2. Discuss with client which behaviors are and are not acceptable. Describe in matter-of-fact manner the consequence of unacceptable behavior. Follow through. 3. Provide group situations for client. 	<ol style="list-style-type: none"> 1. Unconditional acceptance increases feeling of self-worth. 2. Aversive reinforcement can alter or extinguish undesirable behaviors. 3. Appropriate social behavior is often learned from the positive and negative feedback of peers.

Nursing Diagnosis: DEFENSIVE COPING

Related to: Low self-esteem and dysfunctional family system

Outcome Criteria	Nursing Interventions	Rationale
Client will accept responsibility for own behaviors and interact with others without becoming defensive.	<ol style="list-style-type: none"> 1. Explain to client the correlation between feelings of inadequacy and the need for acceptance from others and how these feelings provoke defensive behaviors, such as blaming others for own behaviors. 2. Provide immediate, matter-of-fact, nonthreatening feedback for unacceptable behaviors. 3. Help identify situations that provoke defensiveness and practice through role-play more appropriate responses. 4. Provide immediate positive feedback for acceptable behaviors. 	<ol style="list-style-type: none"> 1. Recognition of the problem is the first step in the change process toward resolution. 2. Client may not realize how these behaviors are being perceived by others. 3. Role-playing provides confidence to deal with difficult situations when they actually occur. 4. Positive feedback encourages repetition, and immediacy is significant for these children who respond to immediate gratification.

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Nursing Diagnosis: LOW SELF-ESTEEM

Related to: Lack of positive feedback and unsatisfactory parent/child relationship

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate increased feelings of self-worth by verbalizing positive statements about self and exhibiting fewer manipulative behaviors.	<ol style="list-style-type: none"> 1. Ensure that goals are realistic. 2. Plan activities that provide opportunities for success. 3. Convey unconditional acceptance and positive regard. 4. Set limits on manipulative behavior. Take caution not to reinforce manipulative behaviors by providing desired attention. Identify the consequences of manipulation. Administer consequences matter-of-factly when manipulation occurs. 5. Help client understand that he or she uses this behavior in order to try to increase own self-esteem. Interventions should reflect other actions to accomplish this goal. 	<ol style="list-style-type: none"> 1. Unrealistic goals set client up for failure, which diminishes self-esteem. 2. Success enhances self-esteem. 3. Communicating that client is a worthwhile human being may increase self-esteem. 4. Aversive consequences may work to decrease unacceptable behaviors. 5. When the client feels better about self, the need to manipulate others will diminish.

Care Plan for the Child/Adolescent With Oppositional Defiant Disorder

Nursing Diagnosis: NONCOMPLIANCE WITH THERAPY

Related to: Negative temperament; denial of problems; underlying hostility

Outcome Criteria	Nursing Interventions	Rationale
Client will participate in and cooperate during therapeutic activities.	<ol style="list-style-type: none"> 1. Set forth a structured plan of therapeutic activities. Start with minimum expectations and increase as client begins to manifest evidence of compliance. 2. Establish a system of rewards for compliance with therapy and consequences for noncompliance. Ensure that the rewards and consequences are concepts of value to the client. 3. Convey acceptance of the client separate from the undesirable behaviors being exhibited. ("It is not <i>you</i>, but your <i>behavior</i>, that is unacceptable") 	<ol style="list-style-type: none"> 1. Structure provides security, and one or two activities may not seem as overwhelming as the whole schedule of activities presented at one time. 2. Positive, negative, and aversive reinforcements can contribute to desired changes in behavior. 3. Unconditional acceptance enhances self-worth and may contribute to a decrease in the need for passive-aggression toward others.

Nursing Diagnosis: DEFENSIVE COPING

Related to: Retarded ego development; low self-esteem; unsatisfactory parent/child relationship

Outcome Criteria	Nursing Interventions	Rationale
Client will accept responsibility for own behaviors and interact with others without becoming defensive.	<ol style="list-style-type: none"> 1. Help client recognize that feelings of inadequacy provoke defensive behaviors, such as blaming others for problems, and the need to "get even." 2. Provide immediate, nonthreatening feedback for passive-aggressive behavior. 3. Help identify situations that provoke defensiveness and practice role-play for more appropriate responses. 4. Provide immediate positive feedback for acceptable behaviors. 	<ol style="list-style-type: none"> 1. Recognition of the problem is the first step toward initiating change. 2. Because client denies responsibility for problems, he or she is denying the inappropriateness of behavior. 3. Role-playing provides confidence to deal with difficult situations when they actually occur. 4. Positive feedback encourages repetition, and immediacy is significant for these children who respond to immediate gratification.

Nursing Diagnosis: LOW SELF-ESTEEM

Related to: Lack of positive feedback; retarded ego development

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate increased feelings of self-worth by verbalizing positive statements about self and exhibiting fewer manipulative behaviors.	<ol style="list-style-type: none"> 1. Ensure that goals are realistic. 2. Plan activities that provide opportunities for success. 3. Convey unconditional acceptance and positive regard. 4. Set limits on manipulative behavior. Take caution not to reinforce manipulative behaviors by providing desired attention. Identify the consequences of manipulation. Administer consequences matter-of-factly when manipulation occurs. 5. Help client understand that he or she uses this behavior in order to try to increase own self-esteem. Interventions should reflect other actions to accomplish this goal. 	<ol style="list-style-type: none"> 1. Unrealistic goals set client up for failure, which diminishes self-esteem. 2. Success enhances self-esteem. 3. Affirmation of client as worthwhile human being may increase self-esteem. 4. Aversive reinforcement may work to decrease or extinguish unacceptable behaviors. 5. When client feels better about self, the need to manipulate others will diminish.

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Nursing Diagnosis: IMPAIRED SOCIAL INTERACTION

Related to: Negative temperament; underlying hostility; manipulation of others

Outcome Criteria	Nursing Interventions	Rationale
<p>Client will be able to interact with staff and peers using age-appropriate, acceptable behaviors.</p>	<ol style="list-style-type: none"> 1. Develop a trusting relationship with the client. Convey acceptance of the person separate from the unacceptable behavior. 2. Explain to the client about passive-aggressive behavior. Explain how these behaviors are perceived by others. Describe which behaviors are not acceptable and role-play more adaptive responses. Give positive feedback for acceptable behaviors. 3. Provide peer group situations for the client. 	<ol style="list-style-type: none"> 1. Unconditional acceptance increases feelings of self-worth and may serve to diminish feelings of rejection that have accumulated over a long period. 2. Role-playing is a way to practice behaviors that do not come readily to the client, making it easier when the situation actually occurs. Positive feedback enhances repetition of desirable behaviors. 3. Appropriate social behavior is often learned from the positive and negative feedback of peers. Groups also provide an atmosphere for using the behaviors rehearsed in role-play.

Care Plan for the Child or Adolescent With Tourette's Disorder

Nursing Diagnosis: RISK FOR SELF-DIRECTED OR OTHER-DIRECTED VIOLENCE

Related to: Low tolerance for frustration

Outcome Criteria	Nursing Interventions	Rationale
Client will not harm self or others.	<ol style="list-style-type: none"> 1. Observe client's behavior frequently through routine activities and interactions. Become aware of behaviors that indicate a rise in agitation. 2. Monitor for self-destructive behavior and impulses. A staff member may need to stay with the client to prevent self-mutilation. 3. Provide hand coverings and other restraints that prevent the client from self-mutilative behaviors. 4. Redirect violent behavior with physical outlets for frustration. 	<ol style="list-style-type: none"> 1. Stress commonly increases tic behaviors. Recognition of behaviors that precede the onset of aggression may provide the opportunity to intervene before violence occurs. 2. Client safety is a nursing priority. 3. Provide immediate external controls against self-aggressive behaviors. 4. Excess energy is released through physical activities and a feeling of relaxation is induced.

Nursing Diagnosis: IMPAIRED SOCIAL INTERACTION

Related to: Impulsiveness; oppositional and aggressive behavior

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to interact with staff and peers using age-appropriate, acceptable behaviors.	<ol style="list-style-type: none"> 1. Develop a trusting relationship with the client. Convey acceptance of the person separate from the unacceptable behavior. 2. Discuss with client which behaviors are and are not acceptable. Describe in matter-of-fact manner the consequences of unacceptable behavior. Follow through. 3. Provide group situations for client. 	<ol style="list-style-type: none"> 1. Unconditional acceptance increases feelings of self-worth. 2. Aversive reinforcement can alter undesirable behaviors. 3. Appropriate social behavior is often learned from the positive and negative feedback of peers.

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Nursing Diagnosis: LOW SELF-ESTEEM

Related to: Shame associated with tic behaviors

Outcome Criteria	Nursing Interventions	Rationale
Client will verbalize positive aspects about self not associated with tic behaviors.	<ol style="list-style-type: none"> 1. Convey unconditional acceptance and positive regard. 2. Set limits on manipulative behavior. Take caution not to reinforce manipulative behaviors by providing desired attention. Identify the consequences of manipulation. Administer consequences matter-of-factly when manipulation occurs. 3. Help client understand that he or she uses manipulation to try to increase own self-esteem. Interventions should reflect other actions to accomplish this goal. 4. If client chooses to suppress tics in the presence of others, provide a specified "tic time," during which he or she "vents" tics, feelings, and behaviors (alone or with staff). 5. Ensure that client has regular one-to-one time with nursing staff. 	<ol style="list-style-type: none"> 1. Communication of client as a worthwhile human being may increase self-esteem. 2. Aversive consequences may work to decrease or extinguish unacceptable behaviors. 3. When client feels better about self, the need to manipulate others will diminish. 4. Allows for release of tics and assists in sense of control and management of symptoms (Rosner & Pollice, 1991). 5. Provides opportunity for educating about illness and teaching management tactics. Assists in exploring feelings around illness and incorporating illness into a healthy sense of self (Rosner & Pollice, 1991).

Care Plan for the Client with Separation Anxiety Disorder

Nursing Diagnosis: ANXIETY (SEVERE)

Related to: Family history; temperament; overattachment to parent; negative role modeling

Outcome Criteria	Nursing Interventions	Rationale
Client will maintain anxiety at no higher than moderate level in the face of events that formerly have precipitated panic.	<ol style="list-style-type: none"> 1. Establish an atmosphere of calmness, trust, and genuine positive regard. 2. Assure client of his or her safety and security. 3. Explore the child or adolescent's fears of separating from the parents. Explore with the parents possible fears they may have of separation from the child. 4. Help parents and child initiate realistic goals (e.g., child to stay with sitter for 2 hr with minimal anxiety; or, child to stay at friend's house without parents until 9 P.M. without experiencing panic anxiety). 5. Give, and encourage parents to give, positive reinforcement for desired behaviors. 	<ol style="list-style-type: none"> 1. Trust and unconditional acceptance are necessary for satisfactory nurse/client relationship. Calmness is important because anxiety is easily transmitted from one person to another. 2. Symptoms of panic anxiety are very frightening. 3. Some parents may have an underlying fear of separation from the child, of which they are unaware and which they are unconsciously transferring to the child. 4. Parents may be so frustrated with child's clinging and demanding behaviors that assistance with problem solving may be required. 5. Positive reinforcement encourages repetition of desirable behaviors.

Nursing Diagnosis: INEFFECTIVE COPING

Related to: Unresolved separation conflicts and inadequate coping skills

Evidenced by: Numerous somatic complaints

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate use of more adaptive coping strategies (than physical symptoms) in response to stressful situations.	<ol style="list-style-type: none"> 1. Encourage child or adolescent to discuss specific situations in life that produce the most distress and describe his or her response to these situations. Include parents in the discussion. 2. Help the child or adolescent who is perfectionistic to recognize that self-expectations may be unrealistic. Connect times of unmet self-expectations to the exacerbation of physical symptoms. 3. Encourage parents and child to identify more adaptive coping strategies that the child could use in the face of anxiety that feels overwhelming. Practice through role-play. 	<ol style="list-style-type: none"> 1. Client and family may be unaware of the correlation between stressful situations and the exacerbation of physical symptoms. 2. Recognition of maladaptive patterns is the first step in the change process. 3. Practice facilitates the use of the desired behavior when the individual is actually faced with the stressful situation.

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Nursing Diagnosis: IMPAIRED SOCIAL INTERACTION

Related to: Reluctance to be away from attachment figure

Outcome Criteria	Nursing Interventions	Rationale
Client will be able to spend time with staff and peers without excessive anxiety.	<ol style="list-style-type: none"> 1. Develop a trusting relationship with client. 2. Attend groups with the child and support efforts to interact with others. Give positive feedback. 3. Convey to the child the acceptability of his or her not participating in group in the beginning. Gradually encourage small contributions until client is able to participate more fully. 4. Help client set small personal goals (e.g., "Today I will speak to one person I don't know"). 	<ol style="list-style-type: none"> 1. This is the first step in helping the client learn to interact with others. 2. Presence of a trusted individual provides security during times of distress. Positive feedback encourages repetition. 3. Small successes will gradually increase self-confidence and decrease self-consciousness, so that client will feel less anxious in the group situation. 4. Simple, realistic goals provide opportunities for success that increase self-confidence and may encourage the client to attempt more difficult objectives in the future.

Care Plan for Victims of Abuse

Nursing Diagnosis: RAPE-TRAUMA SYNDROME

Related to: Sexual assault

Evidenced by: Verbalizations of the attack; bruises and lacerations over areas of body; severe anxiety

Outcome Criteria	Nursing Interventions	Rationale
Client will begin a healthy grief resolution, initiating the process of healing (both physically and psychologically).	<ol style="list-style-type: none"> Smith (1987a) relates the importance of communicating the following four phrases to the rape victim: <ul style="list-style-type: none"> I am very sorry this happened to you. You are safe here. I am very glad you are alive. You are not to blame. You are a victim. It was not your fault. Whatever decisions you made at the time of the assault were the right ones because you are alive. Explain every assessment procedure that will be conducted and why it is being conducted. Ensure that data collection is conducted in a caring, nonjudgmental manner. Ensure that the client has adequate privacy for all immediate post-crisis interventions. Try to have as few people as possible providing the immediate care or collecting immediate evidence. Encourage the client to give an account of the assault. Listen, but do not probe. Discuss with the client whom to call for support or assistance. Provide information about referrals for aftercare. 	<ol style="list-style-type: none"> The woman who has been sexually assaulted fears for her life and must be reassured of her safety. She may also be overwhelmed with self-doubt and self-blame, and these statements instill trust and validate self-worth. This may serve to decrease fear/anxiety and increase trust. The post-trauma client is extremely vulnerable. Additional people in the environment increase this feeling of vulnerability and serve to escalate anxiety. Nonjudgmental listening provides an avenue for catharsis that the client needs to begin healing. A detailed account may be required for legal follow-up, and a caring nurse, as client advocate, may help to lessen the trauma of evidence collection. Because of severe anxiety and fear, the client may need assistance from others during this immediate post-crisis period. Provide referral information in writing for later reference (e.g., psychotherapist, mental health clinic, community advocacy group).

Nursing Diagnosis: POWERLESSNESS

Related to: Cycle of battering

Evidenced by: Verbalizations of abuse; bruises and lacerations over areas of body; fear for own safety and that of children; verbalizations of no way to get out of relationship

Outcome Criteria	Nursing Interventions	Rationale
Client will recognize and verbalize choices available, thereby perceiving some control over life situation.	<ol style="list-style-type: none"> In collaboration with physician, ensure that all physical wounds, fractures, and burns receive immediate attention. Take photographs if the victim will permit. Take the woman to a private area to do the interview. 	<ol style="list-style-type: none"> Client safety is a nursing priority. Photographs may be called in as evidence if charges are filed. If the client is accompanied by the man who did the battering, she is not likely to be truthful about her injuries.

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Outcome Criteria	Nursing Interventions	Rationale
	<ol style="list-style-type: none"> 3. If she has come alone or with her children, assure her of her safety. Encourage her to discuss the battering incident. Ask questions about whether this has happened before, whether the abuser takes drugs, whether the woman has a safe place to go, and whether she is interested in pressing charges. 4. Ensure that “rescue” efforts are not attempted by the nurse. Offer support, but remember that the final decision must be made by the client. 5. Stress the importance of safety. Smith (1987b) suggests a statement such as, “Yes, it has happened. Now where do you want to go from here?” Burgess (1990) states, “The victim needs to be made aware of the variety of resources that are available to her. These may include crisis hot lines, community groups for women who have been abused, shelters, a variety of counseling opportunities (i.e., couples, individual, or group), and information regarding the victim’s rights in the civil and criminal justice system.” Following a discussion of these available resources, the woman may choose for herself. If her decision is to return to the marriage and home, this choice also must be respected. 	<ol style="list-style-type: none"> 3. Some women will attempt to keep secret how their injuries occurred in an effort to protect the partner or because they are fearful that the partner will kill them if they tell. 4. Making her own decision will give the client a sense of control over her life situation. Imposing judgments and giving advice are nontherapeutic. 5. Knowledge of available choices decreases the victim’s sense of powerlessness, but true empowerment comes only when she chooses to use that knowledge for her own benefit.

Care Plan for the Elderly Client

Nursing Diagnosis: RISK FOR TRAUMA

Related to: Confusion, disorientation, muscular weakness, spontaneous fractures, falls

Outcome Criteria	Nursing Interventions	Rationale
Client will not experience injury.	<ol style="list-style-type: none"> 1. The following measures may be instituted: <ol style="list-style-type: none"> a. Arrange furniture and other items in the room to accommodate client's disabilities. b. Store frequently used items within easy access. c. Keep bed in unelevated position. Pad siderails and headboard if client has history of seizures. Keep bedrails up when client is in bed (if permitted by institutional policy). d. Assign room near nurses' station; observe frequently. e. Assist client with ambulation. f. Keep a dim light on at night. g. If client is a smoker, cigarettes and lighter or matches should be kept at the nurses' station and dispensed only when someone is available to stay with client while he or she is smoking. h. Frequently orient client to place, time, and situation. i. Soft restraints may be required if client is very disoriented and hyperactive. 	<ol style="list-style-type: none"> 1. To ensure client safety.

Nursing Diagnosis: DISTURBED THOUGHT PROCESSES

Related to: Age-related changes that result in cerebral anoxia

Evidenced by: Short-term memory loss, confusion, or disorientation

Outcome Criteria	Nursing Interventions	Rationale
Client will interpret the environment accurately and maintain reality orientation to the best of his or her cognitive ability.	<ol style="list-style-type: none"> 1. Frequently orient client to reality. Use clocks and calendars with large numbers that are easy to read. Notes and large, bold signs may be useful as reminders. Allow client to have personal belongings. 2. Keep explanations simple. Use face-to-face interaction. Speak slowly and do not shout. 3. Discourage rumination of delusional thinking. Talk about real events and real people. 4. Monitor for medication side effects. 	<ol style="list-style-type: none"> 1. To help maintain orientation and aid in memory and recognition. 2. To facilitate comprehension. Shouting may create discomfort, and in some instances, may provoke anger. 3. Rumination promotes disorientation. Reality orientation increases sense of self-worth and personal dignity. 4. Physiological changes in the elderly can alter the body's response to certain medications. Toxic effects may intensify altered thought processes.

Continued on the following page

Nursing Diagnosis: SELF-CARE DEFICIT (SPECIFY)

Related to: Weakness, disorientation, confusion, or memory deficits

Evidenced by: Inability to fulfill activities of daily living

Outcome Criteria	Nursing Interventions	Rationale
Client will accomplish activities of daily living to the best of his or her ability. Unfulfilled needs will be met by caregivers.	<ol style="list-style-type: none"> 1. Provide a simple, structured environment: <ol style="list-style-type: none"> a. Identify self-care deficits and provide assistance as required. Promote independent actions as able. b. Allow plenty of time for client to perform tasks. c. Provide guidance and support for independent actions by talking the client through the task one step at a time. d. Provide a structured schedule of activities that do not change from day to day. e. Activities of daily living should follow home routine as closely as possible. f. Allow consistency in assignment of daily caregivers. 	<ol style="list-style-type: none"> 1. To minimize confusion.

Nursing Diagnosis: CAREGIVER ROLE STRAIN

Related to: Severity and duration of the care receiver's illness; lack of respite and recreation for the caregiver

Evidenced by: Feelings of stress in relationship with care receiver; feelings of depression and anger; family conflict around issues of providing care.

Outcome Criteria	Nursing Interventions	Rationale
Caregivers will achieve effective problem-solving skills and develop adaptive coping mechanisms to regain equilibrium.	<ol style="list-style-type: none"> 1. Assess prospective caregivers' ability to anticipate and fulfill client's unmet needs. Provide information to assist caregivers with this responsibility. Ensure that caregivers are aware of available community support systems from which they can seek assistance when required. Examples include adult day care centers, housekeeping and homemaker services, respite care services, or a local chapter of the Alzheimer's Disease and Related Disorders Association. This organization sponsors a nationwide 24-hour hotline to provide information and link families who need assistance with nearby chapters and affiliates. The hotline number is 800-621-0379. 2. Encourage caregivers to express feelings, particularly anger. 3. Encourage participation in support groups composed of members with similar life situations. 	<ol style="list-style-type: none"> 1. Caregivers require relief from the pressures and strain of providing 24-hour care for their loved one. Studies have shown that elder abuse arises out of caregiving situations that place overwhelming stress on the caregivers. 2. Release of these emotions can serve to prevent psychopathology, such as depression or psychophysiological disorders, from occurring. 3. Hearing others who are experiencing the same problems discuss ways in which they have coped may help caregiver adopt more adaptive strategies. Individuals who are experiencing similar life situations provide empathy and support for each other.

Continued on the following page

Nursing Diagnosis: LOW SELF-ESTEEM

Related to: Loss of pre-retirement status

Evidenced by: Verbalization of negative feelings about self and life

Outcome Criteria	Nursing Interventions	Rationale
Client will demonstrate increased feelings of self-worth by expressing positive aspects of self and past accomplishments.	<ol style="list-style-type: none"> 1. Encourage client to express honest feelings in relation to loss of prior status. Acknowledge pain of loss. Support client through process of grieving. 2. If lapses in memory are occurring, devise methods for assisting client with memory deficit. Examples: <ol style="list-style-type: none"> a. Name sign on door identifying client's room. b. Identifying sign on outside of dining room door. c. Identifying sign on outside of restroom door. d. Large clock, with oversized numbers and hands, appropriately placed. e. Large calendar, indicating one day at a time, with month, day, and year in bold print. f. Printed, structured daily schedule, with one copy for client and one posted on unit wall. g. "News board" on unit wall where current news of national and local interest may be posted. 3. Encourage client's attempts to communicate. If verbalizations are not understandable, express to client what you think he or she intended to say. It may be necessary to reorient client frequently. 4. Encourage reminiscence and discussion of life review (see Table 23-4). Also discuss present-day events. Sharing picture albums, if possible, is especially good. 5. Encourage participation in group activities. May need to accompany client at first, until he or she feels secure that the group members will be accepting, regardless of limitations in verbal communication. 6. Encourage client to be as independent as possible in self-care activities. Provide written schedule of tasks to be performed. Intervene in areas where client requires assistance. 	<ol style="list-style-type: none"> 1. Client may be fixed in anger stage of grieving process, which is turned inward on the self, resulting in diminished self-esteem. 2. These aids may assist client to function more independently, thereby increasing self-esteem. 3. The ability to communicate effectively with others may enhance self-esteem. 4. Reminiscence and life review help client resume progression through the grief process associated with disappointing life events and increase self-esteem as successes are reviewed. 5. Positive feedback from group members will increase self-esteem. 6. The ability to perform independently preserves self-esteem.

Continued on the following page

Nursing Diagnosis: DISTURBED SENSORY PERCEPTION

Related to: Age-related alterations in sensory transmission

Evidenced by: Decreased visual acuity, hearing loss, diminished sensitivity to taste and smell, and increased touch threshold

Outcome Criteria	Nursing Interventions*	Rationale
<p>Client will attain optimal level of sensory stimulation. Client will not experience injury due to diminished sensory perception.</p>	<ol style="list-style-type: none"> 1. The following nursing strategies are indicated: <ol style="list-style-type: none"> a. Provide meaningful sensory stimulation to all special senses through conversation, touch, music, or pleasant smells. b. Encourage wearing of glasses, hearing aids, prostheses, and other adaptive devices. c. Use bright, contrasting colors in the environment. d. Provide large-print reading materials, such as books, clocks, calendars, and educational materials. e. Maintain room lighting that distinguishes day from night and that is free of shadows and glare. f. Teach client to scan the environment to locate objects. g. Help client to locate food on plate using “clock” system, and describe food if client is unable to visualize; assist with feeding as needed. h. Arrange physical environment to maximize functional vision. i. Place personal items, call light, within client’s field of vision. j. Teach client to watch the person who is speaking. k. Reinforce wearing of hearing aid; if client does not have an aid, use a communication device. l. Communicate clearly, distinctly, and slowly, using a low-pitched voice and facing client; avoid overarticulation. m. Remove as much unnecessary background noise as possible. n. Do not use slang or extraneous words. o. As speaker, position self at eye level and no farther than 6 feet away. p. Get the client’s attention before speaking. q. Avoid speaking directly into the client’s ear. r. If the client does not understand what is being said, rephrase the statement rather than simply repeating it. s. Help client select foods from the menu that will ensure discrimination between various tastes and smells. t. Ensure that food has been properly cooled so that client with diminished pain threshold is not burned. u. Ensure that bath or shower water is appropriate temperature. v. Use backrubs and massage as therapeutic touch to stimulate sensory receptors. 	<ol style="list-style-type: none"> 1. To assist client with diminished sensory perception and because client safety is a nursing priority.

*The interventions for this nursing diagnosis were adapted from Rogers-Seidl (1991).

Care Plan for Psychiatric Home Health Care of Depressed Elderly Person (Mrs. C)

Nursing Diagnosis: DYSFUNCTIONAL GRIEVING

Related to: Death of husband

Evidenced by: Symptoms of depression such as withdrawal, anorexia, weight loss, difficulty sleeping, and dysphoric/tearful mood

Outcome Criteria	Nursing Interventions	Rationale
Mrs. C will demonstrate adaptive grieving behaviors and evidence of progression toward resolution.	<ol style="list-style-type: none"> 1. Assess Mrs. C's position in the grief process. 2. Develop a trusting relationship by showing empathy and caring. Be honest and keep all promises. Show genuine positive regard. 3. Explore feelings of anger and help Mrs. C direct them toward the source. Help her understand it is appropriate and acceptable to have feelings of anger and guilt about her husband's death. 4. Encourage Mrs. C to review honestly the relationship she had with her husband. With support and sensitivity, point out reality of the situation in areas where misrepresentations may be expressed. 5. Determine if Mrs. C has spiritual needs that are going unfulfilled. If so, contact spiritual leader for intervention with Mrs. C. 6. Refer Mrs. C to physician for medication evaluation. 	<ol style="list-style-type: none"> 1. Accurate baseline data are required to plan accurate care for Mrs. C. 2. These interventions provide the basis for a therapeutic relationship. 3. Knowledge of acceptability of the feelings associated with normal grieving may help to relieve some of the guilt that these responses generate. 4. Mrs. C must give up an idealized perception of her husband. Only when she is able to see both positive and negative aspects about the relationship will the grieving process be complete. 5. Recovery may be blocked if spiritual distress is present and care is not provided. 6. Antidepressant therapy may help Mrs. C to function while confronting the dynamics of her depression.

Nursing Diagnosis: Risk for Injury

Related to: Dizziness and weakness from lack of activity, low blood pressure, and poor nutritional status

Outcome Criteria	Nursing Interventions	Rationale
Mrs. C will not experience physical harm or injury.	<ol style="list-style-type: none"> 1. Assess vital signs at every visit. Report to physician should they fall below baseline. 2. Encourage Mrs. C to use walker until strength has returned. 3. Visit Mrs. C during mealtimes and sit with her while she eats. Encourage her niece to do the same. Ensure that easy to prepare, nutritious foods for meals and snacks are available in the house and that they are items that Mrs. C likes. 4. Contact local meal delivery service (e.g., Meals on Wheels) to deliver some of Mrs. C's meals. 5. Weigh Mrs. C each week. 6. Ensure that diet contains sufficient fluid and fiber. 	<ol style="list-style-type: none"> 1. Client safety is a nursing priority. 2. The walker will help to prevent Mrs. C from falling. 3. She is more likely to eat what is convenient and what she enjoys. 4. This would ensure that she receives at least one complete and nutritious meal each day. 5. Weight gain is a measurable, objective means of assessing whether Mrs. C is eating. 6. Adequate dietary fluid and fiber will help to alleviate constipation. She may also benefit from a daily stool softener.

Continued on the following page

Nursing Diagnosis: SOCIAL ISOLATION

Related to: Depressed mood and feelings of worthlessness

Evidenced by: Staying home alone, refusing to leave apartment

Outcome Criteria	Nursing Interventions	Rationale
Mrs. C will renew contact with friends and participate in social activities.	<ol style="list-style-type: none"> As nutritional status is improving and strength is gained, encourage Mrs. C to become more active. Take walks with her; help her perform simple tasks around her house. Assess lifelong patterns of relationships. Help her identify present relationships that are satisfying and activities that she considers interesting. Consider the feasibility of a pet. Suggest possible alternatives that Mrs. C may consider as she seeks to participate in social activities. These may include foster grandparent programs, senior citizens centers, church activities, craft groups, and volunteer activities. Help her to locate individuals with whom she may attend some of these activities. 	<ol style="list-style-type: none"> Increased activity enhances both physical and mental status. Basic personality characteristics will not change. Mrs. C will very likely keep the same style of relationship development that she had in the past. She is the person who truly knows what she likes, and these personal preferences will facilitate success in reversing social isolation. There are many documented studies of the benefits to elderly individuals of companion pets. She is more likely to attend and participate if she does not have to do so alone.

Care Plan for Primary Caregiver of Client with Chronic Mental Illness

Nursing Diagnosis: CAREGIVER ROLE STRAIN

Related to: Severity and duration of the care receiver's illness and lack of respite and recreation for the caregiver

Evidenced by: Feelings of stress in relationship with care receiver, feelings of depression and anger, family conflict around issues of providing care.

Outcome Criteria	Nursing Interventions	Rationale
Caregivers will achieve effective problem-solving skills and develop adaptive coping mechanisms to regain equilibrium.	<ol style="list-style-type: none"> 1. Assess prospective caregivers' abilities to anticipate and fulfill client's unmet needs. Provide information to assist caregivers with this responsibility. Ensure that caregivers encourage client to be as independent as possible. 2. Ensure that caregivers are aware of available community support systems from whom they can seek assistance when required. Examples include respite care services, day treatment centers, and adult day care centers. 3. Encourage caregivers to express feelings, particularly anger. 4. Encourage participation in support groups comprised of members with similar life situations. Provide information about support groups that may be helpful: <ol style="list-style-type: none"> a. National Alliance for the Mentally Ill (800) 950-NAMI b. Association on Mental Retardation (800) 424-3688 c. Association for Retarded Citizens (301) 565-3842 d. Alzheimer's Disease and Related Disorders Association (800) 272-3900 	<ol style="list-style-type: none"> 1. Caregivers may be unaware of what the client can realistically accomplish. They may be unaware of the nature of the illness. 2. Caregivers require relief from the pressures and strain of providing 24-hour care for their loved one. Studies have shown that abuse arises out of caregiving situations that place overwhelming stress on the caregivers. 3. Release of these emotions can serve to prevent psychopathology, such as depression or psychophysiological disorders, from occurring. 4. Hearing others who are experiencing the same problems discuss ways in which they have coped may help the caregiver adopt more adaptive strategies. Individuals who are experiencing similar life situations provide empathy and support for each other.

Care Plan for the Grieving Person

Nursing Diagnosis: RISK FOR DYSFUNCTIONAL GRIEVING

Related to: Loss of a valued concept/object; loss of a loved one

Evidenced by: Feelings of sadness, anger, guilt, self-reproach, anxiety, loneliness, fatigue, helplessness, shock, yearning, and numbness

Outcome Criteria	Nursing Interventions	Rationale
Client will progress through the grief process in a healthful manner toward resolution.	<ol style="list-style-type: none"> 1. Assess client's stage in the grief process. 2. Develop trust. Show empathy, concern, and unconditional positive regard. 3. Help the client actualize the loss by talking about it. "When did it happen? How did it happen?" and so forth. 4. Help the client identify and express feelings. Some of the more problematic feelings include: <ol style="list-style-type: none"> a. Anger. The anger may be directed at the deceased, at God, displaced onto others, or retroflected inward on the self. Encourage the client to examine this anger and validate the appropriateness of this feeling. b. Guilt. The client may feel that he or she did not do enough to prevent the loss. Help the client by reviewing the circumstances of the loss and the reality that it could not be prevented. c. Anxiety and helplessness. Help the client to recognize the way that life was managed before the loss. Help the client to put the feelings of helplessness into perspective by pointing out ways that he or she managed situations effectively without help from others. Role-play life events and assist with decision-making situations. 5. Interpret normal behaviors associated with grieving and provide client with adequate time to grieve. 6. Provide continuing support. If this is not possible by the nurse, then offer referrals to support groups. Support groups of individuals going through the same experiences can be very helpful for the grieving individual. 7. Identify pathological defenses that the client may be using (e.g., drug/alcohol use, somatic complaints, social isolation). Assist the client in understanding why these are not healthy defenses and how they delay the process of grieving. 8. Encourage the client to make an honest review of the relationship with that which has been lost. Journal keeping is a facilitative tool with this intervention. 	<ol style="list-style-type: none"> 1. Accurate baseline data are required to provide appropriate assistance. 2. Developing trust provides the basis for a therapeutic relationship. 3. Reviewing the events of the loss can help the client come to full awareness of the loss. 4. Until client can recognize and accept personal feelings regarding the loss, grief work cannot progress. <ol style="list-style-type: none"> a. Many people will not admit to angry feelings, believing it is inappropriate and unjustified. Expression of this emotion is necessary to prevent fixation in this stage of grief. b. Feelings of guilt prolong resolution of the grief process. c. The client may have fears that he or she may not be able to carry on alone. 5. Understanding of the grief process will help prevent feelings of guilt generated by these responses. Individuals need adequate time to accommodate to the loss and all its ramifications. This involves getting past birthdays and anniversaries of which the deceased was a part. 6. The availability of emotional support systems facilitates the grief process. 7. The bereavement process is impaired by behaviors that mask the pain of the loss. 8. Only when the client is able to see both positive and negative aspects related to the loss will the grieving process be complete.

Continued on the following page

Nursing Diagnosis: RISK FOR SPIRITUAL DISTRESS

Related to: Dysfunctional grieving over loss of valued object

Evidenced by: Anger toward God, questioning meaning of own existence, inability to participate in usual religious practices

Outcome Criteria	Nursing Interventions	Rationale
Client will express achievement of support and personal satisfaction from spiritual practices.	<ol style="list-style-type: none"> 1. Be accepting and nonjudgmental when client expresses anger and bitterness toward God. Stay with the client. 2. Encourage the client to ventilate feelings related to meaning of own existence in the face of current loss. 3. Encourage the client as part of grief work to reach out to previously used religious practices for support. Encourage client to discuss these practices and how they provided support in the past. 4. Ensure client that he or she is not alone when feeling inadequate in the search for life's answers. 5. Contact spiritual leader of client's choice, if he or she requests. 	<ol style="list-style-type: none"> 1. The nurse's presence and nonjudgmental attitude increase the client's feelings of self-worth and promote trust in the relationship. 2. Client may believe he or she cannot go on living without lost object. Catharsis can provide relief and put life back into realistic perspective. 3. Client may find comfort in religious rituals with which he or she is familiar. 4. Validation of client's feelings and assurance that they are shared by others offer reassurance and an affirmation of acceptability. 5. These individuals serve to provide relief from spiritual distress and often can do so when other support persons cannot.

Critical Pathways: [Alcohol Withdrawal](#)

Critical Pathways: [Schizophrenic Psychosis](#)

Critical Pathways: [Depressed Client](#)

Critical Pathways: [Manic Episode](#)

Critical Pathways: [Posttrauma Client](#)

Critical Pathways: [Anorexia Nervosa](#)

Critical Pathway of Care for Client in Alcohol Withdrawal

Estimated Length of Stay: 7 Days—Variations from Designated Pathway Should be Documented in Progress Notes

Nursing Diagnoses and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Risk for injury related to CNS agitation					Day 7	Client shows no evidence of injury obtained during ETOH withdrawal
Referrals	Day 1	Psychiatrist Assess need for: Neurologist Cardiologist Internist			Day 7	Discharge with follow-up appointments as required
Diagnostic studies	Day 1	Blood alcohol level Drug screen (urine and blood) Chemistry profile Urinalysis Chest X-ray ECG	Day 4	Repeat of selected diagnostic studies as necessary.		
Additional assessments	Day 1	VS q4h	Day 2–3	VS q8h if stable	Day 4–7	VS b.i.d.; remain stable
	Day 1–5 Ongoing Ongoing	I&O Restraints p.r.n. Assess withdrawal symptoms: tremors, nausea/vomiting, tachycardia, sweating, high blood pressure, seizures, insomnia, hallucinations	Day 6	DC I&O		
Medications			Day 4	Marked decrease in objective withdrawal symptoms	Day 7	Discharge; absence of objective withdrawal symptoms
	Day 1	*Librium 200 mg in divided doses	Day 3	Librium 120 mg in divided doses	Day 5	Librium 40 mg
	Day 2	Librium 160 mg in divided doses	Day 4	Librium 80 mg in divided doses	Day 6	DC Librium
	Day 1–6 Day 1–7	Librium p.r.n. Maalox ac & hs <i>*Note:</i> Some physicians may elect to use Serax or Tegretol in the detoxification process			Day 7	Discharge; no withdrawal symptoms

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Nursing Diagnosis and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Client education			Day 5	Discuss goals of AA and need for outpatient therapy	Day 7	Discharge with information regarding AA attendance or outpatient treatment
Imbalanced nutrition: Less than body requirements					Day 7	Nutritional condition has stabilized.
Referrals	Day 1	Consult dietitian	Day 1-7	Fulfill nutritional needs		
Diet	Day 1	Bland as tolerated; fluids as tolerated	Day 2-3	Frequent, small, meals; easily digested foods; advance as tolerated	Day 4-7	High-protein, high-carbohydrate diet
Additional assessments	Day 1-7	Weight I&O Skin turgor Color of mucous membranes				
Medications	Day 1-7	Thiamine 100 mg po (or injection, depending on condition of pt.) Multiple vitamin tablet Folate 1 mg po				
Client education			Day 4	Principles of nutrition; foods for maintenance of wellness	Day 6-7	Client demonstrates ability to select appropriate foods for healthy diet
			Day 5	Reinforce teaching		

Critical Pathway of Care for Client with Schizophrenic Psychosis

Estimated Length of Stay: 14 Days—Variations from Designated Pathway should be Documented in Progress Notes

Nursing Diagnosis and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Disturbed thought processes/Disturbed sensory perception			Day 7	Client is able to differentiate between what is real and what is not real	Day 14	Client experiences no delusional thinking or hallucinations.
Referrals	Day 1	Psychiatrist Psychologist Social worker Clinical nurse specialist Music therapist Occupational therapist Recreational therapist			Day 14	Discharge with follow-up appointments as required.
Diagnostic studies	Day 1 Day 3–5	Drug screen Chemistry profile CT scan, MRI, PET, EEG. (These may be ordered to examine structure and function of the brain.)				
Additional assessments	Day 1 Day 1	VS every shift. Assess for: delusions, hallucinations, loose associations, inappropriate affect, excitement/stupor, panic anxiety, suspiciousness.	Day 2–14 Day 2–5	Ongoing assessments Establish trust with at least one person.	Day 2–14 Day 14	VS daily if stable. No evidence of delusions, hallucinations, loose associations, inappropriate affect, excitement/stupor, panic anxiety, suspiciousness.
Medications	Day 1	Antipsychotic medication (scheduled and p.r.n.). May need order for concentrate and injectable form. Antiparkinsonian medication (p.r.n.)	Day 1–14	Assess for effectiveness and side effects of medications.	Day 14	Client is discharged with medications.

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Nursing Diagnosis and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Client education			Day 7	Discuss correlation between increased anxiety and psychotic symptoms. Discuss ways to deescalate anxiety.	Day 12–13	Reinforce teaching.
			Day 10	Discuss importance of taking medications regularly, even when feeling well. Discuss possible side effects of medications and when to see the doctor.	Day 14	Client verbalizes understanding of information presented prior to discharge.
Risk for violence: Self-directed or other-directed	Day 1	Environment is made safe for client and others.	Ongoing	Client does not harm self or others.	Day 14	Client is discharged without harm to self or others.
Referrals	Day 1	Alert hostility management team of the admission of a potentially violent client. For relaxation therapy: Music therapist Clinical nurse specialist Stress management specialist Psychiatrist: May give order for mechanical restraints to be used if needed.			Day 14	Discharge with follow-up appointments as required.
Additional assessments	Day 1	Assess for signs of impending violent behavior: increase in psychomotor activity; angry affect; verbalized persecutory delusions or frightening hallucinations.	Day 2–14	Assessments are ongoing.		

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Nursing Diagnosis and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Medications	Day 1	Use antipsychotic medications (p.r.n.) when signs of agitation begin.	Day 1–14	Use medications, isolation/seclusion, or mechanical restraints. If client refuses medications, administer following application of restraints.	14 day	Client is discharged with medications.
Client education			Day 3–12	Teach relaxation techniques; discuss activities in which client could participate to relieve pent-up tension; discuss signs and symptoms of escalating anxiety.	Day 12–13 Day 14	Reinforce teaching. Client verbalizes understanding of information presented prior to discharge.

CT = computed tomography; MRI = magnetic resonance imaging; PET = positron-emission tomography; EEG = electroencephalogram.

Critical Pathway of Care for the Depressed Client

Estimated Length of Stay: 7 Days—Variations from Designated Pathway Should be Documented in Progress Notes

Nursing Diagnoses and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Risk for suicide	Day 1	Environment is made safe for client.	Ongoing	Client does not harm self.	Day 7	Client is discharged without harm to self.
Referrals	Day 1	Psychiatrist: May give order to isolate if risk is great or may do ECT For relaxation therapy: Music therapist Clinical nurse specialist Stress management specialist			Day 7	Discharge with follow-up appointments as required.
Additional assessments	Day 1	Suicidal assessment: • ideation • gestures • threats • plan • means • anxiety level • thought disorder Secure no-suicide contract.	Day 2–7	Ongoing assessments.	Day 7	Client discharged. Denies suicidal ideations.
Medications	Day 1	Antidepressant medication, as ordered. Antianxiety agents p.r.n.	Day 1–7	Assess for effectiveness and side effects of medications. Be alert for sudden lifts in mood.	Day 7	Discharged with antidepressant medications.
Client education	Day 3–6	Teach relaxation techniques. Discuss resources outside the hospital from whom client may seek assistance when feeling suicidal.	Day 6–7	Reinforce teaching.	Day 7	Discharge with understanding of instruction given.
Dysfunctional grieving	Day 1	Assess stage of fixation in grief process.			Day 7	Discharge with evidence of progression toward resolution of grief.

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Nursing Diagnoses and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Referrals	Day 1	Psychiatrist Psychologist Social worker Clinical nurse specialist Music therapist Occupational therapist Recreational therapist Chaplain			Day 7	Discharge with follow-up appointments as required.
Diagnostic studies	Day 1 Day 2-3	Any of the following tests <i>may</i> be ordered: Drug screen Chemistry profile Urine test for norepinephrine and serotonin Dexamethasone-suppression test A measure of TSH response to administered TRH Serum and urine studies for nutritional deficiencies.				
Medications	Day 1	Antidepressant medication, as ordered. Antianxiety agent p.r.n.	Day 1-7	Assess for effectiveness and side effects of medications.	Day 7	Client is discharged with medications.
Diet	Day 1	If antidepressant medication is MAO inhibitor: low tyramine			Day 7	Client has experienced no symptoms of hypertensive crisis.
Additional assessments	Day 1 Day 1	VS every shift Assess: <ul style="list-style-type: none"> • Mental status • Mood, affect • Thought disorder • Communication patterns • Level of interest in environment • Participation in activities • Weight 	Day 2-7 Day 2-7	VS daily if stable. Ongoing assessments.	Day 7	Mood and affect appropriate. No evidence of thought disorder. Participates willingly and appropriately in activities.

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Critical Pathways: *Depressed Client (Cont'd)*

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Nursing Diagnoses and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Client education	Day 1	Orient to unit	Day 4	Discuss importance of taking medications regularly, even when feeling well or if feeling medication is not helping. Discuss possible side effects of medication and when to see the physician. Teach which foods to eliminate from diet if taking MAO inhibitor.	Day 7	Client is discharged. Verbalizes understanding of information presented prior to discharge.
			Day 5-6	Reinforce teaching.		

Critical Pathway of Care for the Client Experiencing a Manic Episode

Estimated Length of Stay: 7 Days—Variations from Designated Pathway Should be Documented in Progress Notes

Nursing Diagnoses and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Risk for injury/violence	Day 1	Environment is made safe for client and others.	Ongoing	Client does not harm self or others.	Day 7	Client has not harmed self or others.
Referrals	Day 1	Psychiatrist Clinical nurse specialist Internist (may need to determine if symptoms are caused by other illness or medication side effects) Neurologist (may want to check for brain lesion) Alert hostility management team			Day 7	Discharge with follow-up appointments as required.
Diagnostic studies	Day 1	Drug screen Electrolytes Lithium level Chemistry profile	Day 5	Lithium level	Day 7	Lithium level and discharge with instructions to return monthly to have level drawn.
Additional assessments	Day 1 Ongoing Ongoing	VS q4h Restraints p.r.n. Assess for signs of impending violent behavior: increase in psychomotor activity, angry affect, verbalized persecutory delusions or frightening hallucinations.	Day 2–7	Ongoing assessments		
Medications	Day 1	Antipsychotic medications, scheduled and p.r.n. *Lithium carbonate 600 mg t.i.d. or q.i.d. <i>*Note:</i> Physician may elect to use an anticonvulsant (e.g., valproic acid; carbamazepine)	Day 2–7	Administer medications as ordered and observe for effectiveness and side effects.	Day 7	Client is discharged on maintenance dose lithium carbonate (or other mood-stabilizing agent).

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Nursing Diagnoses and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Client education			Day 4	Teach about lithium: Continue to take medication even when feeling okay. Teach symptoms of toxicity. Emphasize importance of monthly blood levels.	Day 7	Client is discharged with written instructions and verbalizes understanding of material presented.
			Day 6	Teach about other medications client may be taking. Reinforce teaching.		
Imbalanced nutrition: Less than body requirements					Day 7	Nutritional condition and weight have stabilized.
Referrals	Day 1	Consult dietitian	Day 1–7	Fulfill nutritional needs.		
Diet	Day 1	High-protein, high-calorie nutritious finger foods. Juice and snacks as tolerated.	As mania subsides	Regular diet with foods of client's choice.		
Diagnostic studies	Day 1	Chemistry profile Urinalysis	Day 2–7	Repeat of selected diagnostic studies as required.		
Additional assessments	Day 1–7	Weight I&O Skin turgor Color of mucous membranes				
Medications	Day 1–7	Multiple vitamin/mineral tab				
Client education			Day 4	Principles of nutrition; foods for maintenance of wellness; adequate sodium; 6–8 glasses of water/day. Contact dietitian if weight gain becomes a problem.	Day 5–7	Client demonstrates ability to select appropriate foods for healthy diet and verbalizes understanding of material presented.
			Day 6	Reinforce teaching		

Critical Pathway of Care for the Posttrauma Client

Estimated Length of Stay: 7 Days—Variations from Designated Pathway should be Documented in Progress Notes

Nursing Diagnoses and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Posttrauma Syndrome	Day 1	Reassurance of client safety.	Ongoing	Environment is made safe for client.	Day 7	Client is able to carry out activities of daily living. Fewer flashbacks, nightmares.
Referrals	Day 1	Psychiatrist Psychologist Social worker Clinical nurse specialist Music therapist Occupational therapist Recreational therapist Chaplain			Day 7	Discharge with follow-up appointments as required.
Diagnostic studies	Day 1 Day 2–5	Drug screen; EKG; EEG; Chemistry profile MMPI Impact of event scale (IES)				
Medications	Day 1	Antidepressant medication, as ordered (SSRIs, tricyclics or MAO inhibitors). Antianxiety medication, as ordered (benzodiazepines); may be given p.r.n. because of addictive quality. Clonidine or propranolol (for intrusive thoughts and hyperarousal). Sedative/hypnotics for sleep disturbances; may be given p.r.n.	Day 1–7	Assess for effectiveness and side effects of medications. Administer addictive medications judiciously and taper dosage.	Day 7	Discharged with scripts as ordered by physician (e.g., antidepressants; clonidine; propranolol).

Continued on the following page

Nursing Diagnoses and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Additional assessments	Day 1	VS every shift Assess: <ul style="list-style-type: none"> • Mental status • Mood swings • Anxiety level • Social interaction • Ability to carry out activities of daily living • Suicide ideation • Sleep disturbances • “Flashbacks” • Presence of guilt feelings 	Day 2–7	VS daily if stable Ongoing assessments	Day 7	Anxiety is maintained at manageable level. Mood is appropriate. Interacts with others. Carries out activities of daily living independently. Denies suicide ideation. Sleeps without medication. Is able to interrupt flashbacks with adaptive, coping strategies. Has worked through feelings of guilt.
Diet	Day 1	Client’s choice or low-tyramine if taking MAO inhibitor	Day 2–7	Same	Day 7	Client eats well-balanced diet.
Client education	Day 1	Orient to unit	Day 3–4	Stages of grief Side effects of medications Coping strategies Low-tyramine diet Community resources Support group Importance of not mixing drugs and alcohol.	Day 7	Client is discharged. Verbalizes understanding of information presented before discharge.
			Day 6	Reinforce teaching.		

Critical Pathway of Care for Client with Anorexia Nervosa

Estimated Length of Stay: 28 Days—Variations from Designated Pathway should be Documented in Progress Notes

Nursing Diagnoses and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Imbalanced nutrition: Less than body requirements. Risk for deficient fluid volume.	Ongoing	Client will gain 3 lb/wk and maintain adequate state of hydration			Day 28	Client will exhibit no signs or symptoms of malnutrition or dehydration.
Referrals	Day 1 and ongoing	Consult dietitian	Day 2–28	Fulfill nutritional needs. Client consumes 75% of food provided and at least 1000 ml fluid/day.		
Diagnostic studies	Day 1	Electrolytes Electrocardiogram Blood urea nitrogen/creatinine Urinalysis Complete blood count Thyroid function	Day 14	Repeat of selected diagnostic studies.	Day 28	All laboratory values are within normal limits.
Additional assessments	Daily; q shift	Vital signs	Day 7–28	Vital signs within normal limits.	Day 22–28	Client is able to refrain from self-induced vomiting.
	Daily; q shift	Input & output	Day 7–28	Appropriate balance is achieved.		
	Day 1	Weight	Day 2–28	Client gains approximately 1/2 lb/day.		
	Day 1	Monitor for purging following meals.	Day 1–21	Client bathroom is locked for 1 hr following meals.		
Client education	Day 1	Unit orientation; behavior modification plan	Day 7–14	Principles of nutrition; foods for maintenance of wellness.	Day 15–18	Client demonstrates ability to select appropriate foods for healthy diet.
Ineffective denial	Day 1	Client will cooperate with orientation to unit and explanation of behavior modification plan	Day 2–28	Client cooperates with therapy to restore nutritional status.	Day 18–28	Client accepts that eating behaviors are maladaptive and demonstrates ability to cope more adaptively.

Continued on the following page

Nursing Diagnoses and Categories of Care	Time Dimension	Goals and/or Actions	Time Dimension	Goals and/or Actions	Time Dimension	Discharge Outcome
Referrals	Day 7 (or when physical condition) is stable	Psychologist; social worker; psychodramatist	Day 8–28	Client attends group psychotherapies daily.	Day 28	Client verbalizes ways to gain control in life situation.
Additional assessments	Day 1–17	Assess client's ability to trust; use of manipulation to achieve control.	Day 14	Client has developed trusting relationship with at least one staff member on each shift.	Day 28	Client no longer manipulates others to achieve control.
Client education	Day 1 and ongoing as required	Describe privileges and responsibilities of behavior modification program. Explain consequences of noncompliance.	Day 21	Discuss role of support groups for individuals with eating disorders.	Day 28	Client and family verbalize intention to attend community support group.
Disturbed body image: Low self-esteem	Day 7	Client acknowledges that attention will not be given to the discussion of body image and food	Day 21	Client acknowledges misperception of body image as fat and verbalizes positive self-attributes.	Day 28	Client perceives body image correctly, is not obsessed with food, and has given up the need for perfection.
Referrals	Day 1 (or when condition is stable)	Occupational therapy; recreational therapy; music therapy; art therapy	Day 2–28	Client attends therapy sessions on a daily basis.	Day 28	Through self-expression, client has gained self-awareness and verbalizes positive attributes of self.
Additional assessments	Day 7	Compare specific measurements of client's body with client's perceived calculations. Clarify discrepancies.	Day 8–28	Discuss strengths and weaknesses. Client should strive to achieve self-acceptance.	Day 28	Client verbalizes acceptance of self, including "imperfections"
Medications	At physician's discretion	For associated symptoms: Antidepressant (e.g., SSRI) and/or Antianxiety (e.g., benzodiazepine)			Day 28	Discharge with medications as required.
Client education	Day 14–28	Discuss alternative coping strategies for dealing with feelings. Have client keep diary of feelings, particularly when thinking about food. Discuss action and side effects of medications.			Day 28	Client demonstrates adaptive coping strategies unrelated to eating behaviors for dealing with feelings. Client verbalizes understanding of need for and side effects of medications.



Additional Clinical Tools

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[Mental Status Assessment](#)

[Cultural Assessment Tool](#)

[Assigning Nursing Diagnoses](#)

[Sample Client Teaching Guides](#)

[Global Assessment](#)

[Medication Assessment Tool](#)

Gathering the correct information about the client's mental status is essential to the development of an appropriate plan of care. The mental status examination is a description of all the areas of the client's mental functioning. The following are the components that are considered critical in the assessment of a client's mental status.

IDENTIFYING DATA

1. Name
2. Sex
3. Age
4. Race/culture
5. Occupational/financial status
6. Educational level
7. Significant other
8. Living arrangements
9. Religious preference
10. Allergies
11. Special diet considerations
12. Chief complaint
13. Medical diagnosis

GENERAL DESCRIPTION

Appearance

1. Grooming and dress
2. Hygiene
3. Posture
4. Height and weight
5. Level of eye contact
6. Hair color and texture

7. Evidence of scars, tattoos, or other distinguishing skin marks
8. Evaluation of client's appearance compared with chronological age

MOTOR ACTIVITY

1. Tremors
2. Tics or other stereotypical movements
3. Mannerisms and gestures
4. Hyperactivity
5. Restlessness or agitation
6. Aggressiveness
7. Rigidity
8. Gait patterns
9. Echopraxia
10. Psychomotor retardation
11. Freedom of movement (range of motion)

SPEECH PATTERNS

1. Slowness or rapidity of speech
2. Pressure of speech
3. Intonation
4. Volume
5. Stuttering or other speech impairments
6. Aphasia

GENERAL ATTITUDE

1. Cooperative/uncooperative
2. Friendly/hostile/defensive
3. Uninterested/apathetic
4. Attentive/interested
5. Guarded/suspicious

Continued on the following page

EMOTIONS**Mood**

1. Sad
2. Depressed
3. Despairing
4. Irritable
5. Anxious
6. Elated
7. Euphoric
8. Fearful
9. Guilty
10. Labile

AFFECT

1. Congruence with mood
2. Constricted or blunted (diminished amount/range and intensity of emotional expression)
3. Flat (absence of emotional expression)
4. Appropriate or inappropriate (defines congruence of affect with the situation or with the client's behavior)

THOUGHT PROCESSES**Form of Thought**

1. Flight of ideas
2. Associative looseness
3. Circumstantiality
4. Tangentiality
5. Neologisms
6. Concrete thinking
7. Clang associations
8. Word salad

9. Perseveration
10. Echolalia
11. Mutism
12. Poverty of speech (restriction in the amount of speech)
13. Ability to concentrate
14. Attention span

CONTENT OF THOUGHT

1. Delusions
 - a. Persecutory
 - b. Grandiose
 - c. Reference
 - d. Control or influence
 - e. Somatic
 - f. Nihilistic
2. Suicidal or homicidal ideas
3. Obsessions
4. Paranoia/suspiciousness
5. Magical thinking
6. Religiosity
7. Phobias
8. Poverty of content (vague, meaningless responses)

PERCEPTUAL DISTURBANCES

1. Hallucinations
 - a. Auditory
 - b. Visual
 - c. Tactile
 - d. Olfactory
 - e. Gustatory
2. Illusions
3. Depersonalization (altered perception of the self)
4. Derealization (altered perception of the environment)

Continued on the following page

SENSORIUM AND COGNITIVE ABILITY

1. Level of alertness/consciousness
2. Orientation
 - a. Time
 - b. Place
 - c. Person
 - d. Circumstances
3. Memory
 - a. Recent
 - b. Remote
 - c. Confabulation
4. Capacity for abstract thought

IMPULSE CONTROL

1. Ability to control impulses related to the following:
 - a. Aggression
 - b. Hostility

- c. Fear
- d. Guilt
- e. Affection
- f. Sexual feelings

JUDGMENT AND INSIGHT

1. Ability to solve problems
2. Ability to make decisions
3. Knowledge about self
 - a. Awareness of limitations
 - b. Awareness of consequences of actions
 - c. Awareness of illness
4. Adaptive/maladaptive use of coping strategies and ego defense mechanisms



Additional Clinical Tools: *Cultural Assessment Tool**

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Client's name _____
 Ethnic origin _____
 Address _____
 Birth date _____
 Name of significant other _____
 Relationship _____
 Primary language spoken _____
 Second language spoken _____
 How does client usually communicate with people who speak a different language? _____
 Is an interpreter required? _____ Available? _____
 Highest level of education achieved _____
 Occupation _____
 Presenting problem _____
 Has this problem ever occurred before? _____
 If so, in what manner was it handled previously? _____
 What is client's usual manner of coping with stress? _____
 Who is(are) the client's main support system(s)? _____
 Describe the family living arrangements _____
 Who is the major decision maker in the family? _____
 Describe client's/family members' roles within the family _____

 Describe religious beliefs and practices _____
 Are there any religious requirements or restrictions that place limitations on the client's care? _____
 If so, describe _____
 Who in the family takes responsibility for health concerns? _____
 Describe any special health beliefs and practices _____
 From whom does family usually seek medical assistance in time of need? _____

Describe client's usual emotional/behavioral response to:
 Anxiety _____
 Anger _____
 Loss/change/failure _____
 Pain _____
 Fear _____
 Describe any topics that are particularly sensitive or that the client is unwilling to discuss (because of cultural taboos) _____
 Describe any activities in which the client is unwilling to participate (because of cultural customs or taboos) _____
 What are the client's personal feelings regarding touch? _____
 What are the client's personal feelings regarding eye contact? _____
 What is the client's personal orientation to time? (past, present, future) _____
 Describe any particular illnesses to which the client may be bioculturally susceptible (e.g., hypertension and sickle cell anemia in African Americans) _____
 Describe any nutritional deficiencies to which the client may be bioculturally susceptible (e.g., lactose intolerance in Native and Asian Americans) _____
 Describe client's favorite foods _____
 Are there any foods the client requests or refuses because of cultural beliefs related to this illness? (e.g., "hot" and "cold" foods for Hispanic and Asian Americans). If so, please describe _____

 Describe client's perception of the problem and expectations of health care _____

*From Townsend, 2003, p. 95, with permission.

Following is a list of client behaviors and the NANDA nursing diagnoses which correspond to the behaviors and which may be used in planning care for the client exhibiting the specific behavioral symptoms.

BEHAVIORS

- Aggression; hostility
- Anorexia or refusal to eat
- Anxious behavior
- Confusion; memory loss
- Delusions
- Denial of problems
- Depressed mood or anger turned inward
- Detoxification; withdrawal from substances
- Difficulty making important life decision
- Difficulty with interpersonal relationships
- Disruption in capability to perform usual responsibilities
- Dissociative behaviors (depersonalization; derealization)
- Expresses feelings of disgust about body or body part
- Expresses lack of control over personal situation
- Flashbacks, nightmares, obsession with traumatic experience
- Hallucinations
- Highly critical of self or others
- HIV positive; altered immunity
- Inability to meet basic needs

- Insomnia or hypersomnia
- Loose associations or flight of ideas
- Manic hyperactivity
- Manipulative behavior
- Multiple personalities; gender identity disturbance
- Orgasm, problems with; lack of sexual desire
- Overeating, compulsive
- Phobias
- Physical symptoms as coping behavior
- Projection of blame; rationalization of failures; denial of personal responsibility
- Ritualistic behaviors
- Seductive remarks; inappropriate sexual behaviors

NANDA NURSING DIAGNOSES

- Risk for injury; Risk for other-directed violence
- Imbalanced nutrition: Less than body requirements
- Anxiety (Specify level)
- Confusion, acute/chronic; Disturbed thought processes
- Disturbed thought processes
- Ineffective denial
- Dysfunctional grieving
- Risk for injury
- Decisional conflict (specify)
- Impaired social interaction
- Ineffective role performance
- Disturbed sensory perception (kinesthetic)
- Disturbed body image
- Powerlessness
- Post-trauma syndrome
- Disturbed sensory perception (auditory; visual)
- Low self-esteem (chronic; situational)
- Ineffective protection
- Self-care deficit (feeding; bathing/hygiene; dressing/grooming; toileting)
- Disturbed sleep pattern
- Impaired verbal communication
- Risk for injury
- Ineffective coping
- Disturbed personal identity
- Sexual dysfunction
- Risk for imbalanced nutrition: More than body requirements
- Fear
- Ineffective coping
- Defensive coping

- Anxiety (severe); ineffective coping
- Impaired social interaction

Continued on the following page



Additional Clinical Tools: *Assigning Nursing Diagnoses (Cont'd)*

Self-mutilative behaviors
Sexual behaviors (difficulty, limitations, or changes in;
reported dissatisfaction)
Stress from caring for chronically ill person
Stress from locating to new environment
Substance use as a coping behavior
Behaviors
Substance use (denies use is a problem)
Suicidal Risk for suicide;
Suspiciousness
Vomiting, excessive, self-induced
Withdrawn behavior

Self-mutilation; Risk for self-mutilation
Ineffective sexuality patterns

Caregiver role strain
Relocation stress syndrome
Ineffective coping
NANDA Nursing Diagnoses
Ineffective denial
Risk for self-directed violence
Disturbed thought processes; ineffective coping
Risk for deficient fluid volume
Social isolation

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BENZODIAZEPINES

Patient Medication Instruction Sheet

Patient Name _____ Drug Prescribed _____

Directions for Use _____

Examples and Uses of this Medicine:

Benzodiazepines are used to treat moderate to severe anxiety: alprazolam (Xanax), chlordiazepoxide (Librium), clonazepam (Klonopin), clorazepate (Tranxene), diazepam (Valium), lorazepam (Ativan), and oxazepam (Serax). Some are used to treat insomnia (sleeplessness): flurazepam (Dalmane), temazepam (Restoril), and triazolam (Halcion). Some are used for muscle spasms and to treat seizure disorders.

Before Using this Medicine, Be Sure to Tell Your Doctor if You:

- Are allergic to any medicine
- Are pregnant, plan to be, or are breast feeding
- Have glaucoma
- Are taking any other medications

Side Effects of this Medicine:

REPORT THE FOLLOWING SIDE EFFECTS TO YOUR DOCTOR IMMEDIATELY:

- Mental confusion or depression
- Hallucinations (seeing, hearing, or feeling things not there)
- Skin rash or itching
- Sore throat and fever
- Unusual excitement, nervousness, irritability, or trouble sleeping

SIDE EFFECTS THAT MAY OCCUR BUT THAT DO NOT REQUIRE A DOCTOR'S ATTENTION UNLESS THEY PERSIST LONGER THAN A FEW DAYS:

- Blurred vision, or other changes in vision
- Clumsiness, dizziness, lightheadedness, or slurred speech

- Constipation, diarrhea, nausea, vomiting, or stomach pain
- Difficulty in urination
- Drowsiness, headache, or unusual tiredness or weakness

Other Instructions while Taking this Medication:

- Take this medicine only as your doctor has directed. Do not take more of it or do not take it more often than prescribed.
- If large doses are taken for a prolonged time, it may become habit-forming.
- If you are taking this medicine several times a day and you forget a dose, if it is within an hour or so of the missed dose, go ahead and take it. Otherwise, wait and take the next dose at regular time. Do not double up on a dose if you forget one. Just keep taking the prescribed dosage.
- Do not stop taking the drug abruptly. This can produce serious withdrawal symptoms, such as depression, insomnia, anxiety, abdominal and muscle cramps, tremors, vomiting, sweating, convulsions, delirium. Discuss with the doctor before stopping this medication.
- Do not consume other central nervous system (CNS) depressants (including alcohol) while taking this medication.
- Do not take nonprescription medication without approval from physician.
- Rise slowly from the sitting or lying position to prevent a sudden drop in blood pressure.

BUSPIRONE (BUSPAR)**Patient Medication Instruction Sheet**

Patient Name _____

Directions for Use _____

Uses of this Medicine:

BuSpar is used in the treatment of anxiety disorders. It is also sometimes used to treat the symptoms of premenstrual syndrome.

Before Using this Medicine, Be Sure to Tell Your Doctor if You:

- Are allergic to any medicine
- Are pregnant, plan to be, or are breast feeding
- Are taking any other medications

Side Effects of this Medicine:

REPORT THE FOLLOWING SIDE EFFECTS TO YOUR DOCTOR IMMEDIATELY:

- Mental confusion or depression
- Hallucinations (seeing, hearing, or feeling things not there)
- Skin rash or itching
- Unusual excitement, nervousness, irritability, or trouble sleeping
- Persistent headache
- Involuntary movements of the head or neck muscles

SIDE EFFECTS THAT MAY OCCUR BUT THAT DO NOT REQUIRE A DOCTOR'S ATTENTION UNLESS THEY PERSIST LONGER THAN A FEW DAYS:

- Dizziness; lightheadedness
- Drowsiness
- Nausea
- Fatigue
- Headache that subsides

Other Instructions while Taking this Medication:

- Take this medicine only as your doctor has directed. Do not take more of it and do not take it more often than prescribed.
- If you are taking this medicine several times a day and you forget a dose, if it is within an hour or so of the missed dose, go ahead and take it. Otherwise, wait and take the next dose at regular time. Do not double up on a dose if you forget one. Just keep taking the prescribed dosage.
- Do not consume other CNS depressants (including alcohol) while taking this medication.
- Do not take nonprescription medication without approval from the physician.
- Rise slowly from the sitting or lying position to prevent a sudden drop in blood pressure.

TRICYCLIC ANTIDEPRESSANTS

Patient Medication Instruction Sheet

Patient Name _____ Drug Prescribed _____
 Directions for Use _____

Examples and Uses of this Medicine:

Tricyclic antidepressants are used to treat symptoms of depression: amitriptyline (Elavil), amoxapine (Asendin), desipramine (Norpramin), doxepin (Sinequan), imipramine (Tofranil), nortriptyline (Aventyl), protriptyline (Vivactil), and trimipramine (Surmontil). Doxepin is used to treat depression with anxiety. Clomipramine (Anafranil) is used to treat obsessive-compulsive disorder. Imipramine is used to treat enuresis (bedwetting) in children.

Before Using this Medicine, Be Sure to Tell Your Doctor if You:

- Are allergic to any medicine
- Are pregnant, plan to be, or are breast feeding
- Have glaucoma
- Are taking any other medications
- Have a history of heart problems
- Have a history of seizures or high blood pressure

Side Effects of this Medicine:

REPORT THE FOLLOWING SIDE EFFECTS TO YOUR DOCTOR IMMEDIATELY:

- Seizures
- Skin rash
- Difficulty urinating
- Sore throat and fever
- Irregular heartbeat or chest pain
- Unusual amount of restlessness and excitement
- Hallucinations
- Confusion; disorientation

SIDE EFFECTS THAT MAY OCCUR BUT THAT MAY NOT REQUIRE A DOCTOR'S ATTENTION:

- Drowsiness
- Sensitivity to the sun (may burn easily)
- Dry mouth
- Headache
- Nausea
- Constipation

Other Instructions while Taking this Medication:

- Continue to take the medication even though you still have symptoms. It may take as long as 4 weeks before you start feeling better.
- Use caution when driving or operating dangerous machinery. Drowsiness and dizziness can occur. If these side effects don't go away or get worse, report them to the doctor.
- Do not stop taking the drug abruptly. Doing so might produce withdrawal symptoms, such as nausea, vertigo, insomnia, headache, malaise, and nightmares. Tell the doctor when you want to stop taking it.
- Use sunscreens and wear protective clothing when spending time outdoors.
- Rise slowly from a sitting or lying position to prevent a sudden drop in blood pressure.
- Take frequent sips of water, chew sugarless gum, or suck on hard candy if dry mouth is a problem.
- You may take this medication with food if nausea is a problem.
- Do not drink alcohol while taking this medication.
- While taking this medication, do not consume other medications (including over-the-counter medications) without the physician's approval. Many medications contain substances that, in combination with tricyclic antidepressants, could be dangerous.

SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIS)

Patient Medication Instruction Sheet

Patient Name _____ Drug Prescribed _____
 Directions for Use _____

Examples and Uses of this Medicine:

SSRIs are used to treat symptoms of depression: citalopram (Celexa), fluoxetine (Prozac), paroxetine (Paxil), and sertraline (Zoloft). Some are used to treat obsessive-compulsive disorder: fluvoxamine (Luvox), fluoxetine, (Prozac), paroxetine (Paxil), and sertraline (Zoloft). They also may also be used to treat bulimia nervosa: (fluoxetine [Prozac]) and panic disorder: (sertraline [Zoloft] and paroxetine [Paxil]).

Before Using this Medicine, Be Sure to Tell Your Doctor if You:

- Are allergic to any medicine
- Are pregnant, plan to be, or are breast feeding
- Are taking any other medications
- Have diabetes

Side Effects of this Medicine:

REPORT THE FOLLOWING SIDE EFFECTS TO YOUR DOCTOR IMMEDIATELY:

- | | |
|--|------------------------------------|
| • Skin rash | • Loss of appetite and weight loss |
| • Fever | • Seizures |
| • Unusual excitement, nervousness, irritability, or trouble sleeping | • Difficulty breathing |
| • Increased sensitivity to sunburn | |

SIDE EFFECTS THAT MAY OCCUR BUT THAT MAY NOT REQUIRE A DOCTOR'S ATTENTION:

- Drowsiness
- Dizziness
- Nausea
- Headache
- Impotence or loss of sexual desire (this should be reported to physician if it is troubling to the patient)

Other Instructions while Taking this Medication:

- Continue to take the medication even though you still have symptoms. It may take as long as 4 weeks before you start feeling better.
- Use caution when driving or operating dangerous machinery. Drowsiness and dizziness can occur. If these side effects don't go away or get worse, report them to the doctor.
- Use sunscreens and wear protective clothing when spending time outdoors.
- Rise slowly from a sitting or lying position to prevent a sudden drop in blood pressure.
- Take frequent sips of water, chew sugarless gum, or suck on hard candy if dry mouth is a problem.
- You may take this medication with food if nausea is a problem.
- Avoid drinking alcohol while taking this medication.
- Do not consume other medications (including over-the-counter medications) without the physician's approval while taking this medication. Many medications contain substances that, in combination with SSRI antidepressants, could be dangerous.

MONOAMINE OXIDASE INHIBITORS (MAOIS)

Patient Medication Instruction Sheet

Patient Name _____ Drug Prescribed _____

Directions for Use _____

Examples and Uses of this Medicine:

MAOIs are used to treat the symptoms of depression: isocarboxazid (Marplan), phenelzine (Nardil), and tranylcypromine (Parnate).

Before Using this Medicine, Be Sure to Tell Your Doctor if You:

- Are allergic to any medicine
- Are pregnant, plan to be, or are breast feeding
- Have a history of liver or kidney disease
- Have a history of hypertension
- Have been diagnosed with
- Have a history of heart disease pheochromocytoma
- Have a history of severe or frequent headaches
- Are taking (or have taken in the last 2 weeks) any other medication

Side Effects of this Medicine:

REPORT THE FOLLOWING SIDE EFFECTS TO YOUR DOCTOR IMMEDIATELY:

- Severe, pounding headache
- Stiff or sore neck
- Nausea and vomiting
- Rapid or pounding heartbeat
- Chest pain
- Seizures

THE FOLLOWING SIDE EFFECTS SHOULD ALSO BE REPORTED TO THE DOCTOR:

- Dark urine
- Fainting
- Fever
- Yellowing of eyes or skin
- Hyperexcitable
- Skin rash
- Hallucinations
- Confusion
- Disorientation

SIDE EFFECTS THAT MAY OCCUR BUT THAT MAY NOT REQUIRE A DOCTOR'S ATTENTION:

- Constipation
- Dizziness
- Diarrhea (unless severe and persistent)
- Drowsiness

- Nausea
- Fatigue
- Dry Mouth
- Decreased sexual ability

Other Instructions while Taking this Medication:

- Continue to take the medication even though you still have symptoms. It may take as long as 4 weeks before you start feeling better.
- Use caution when driving or operating dangerous machinery. Drowsiness and dizziness can occur.
- Do not stop taking the drug abruptly. Doing so might produce withdrawal symptoms, such as nausea, vertigo, insomnia, headache, malaise, and nightmares. Tell the doctor when you want to stop taking it.
- Rise slowly from a sitting or lying position to prevent a sudden drop in blood pressure.
- Take frequent sips of water, chew sugarless gum, or suck on hard candy if dry mouth is a problem.
- You may take this medication with food if nausea is a problem. Do not drink alcohol.
- Do not consume other medications (including over-the-counter medications) without the physician's approval while taking this medication. Many medications contain substances that, in combination with MAOI antidepressants, could be dangerous.
- Do not consume the following foods or medications while taking MAOIs (or for 2 weeks after you stop taking them): aged cheese, raisins, red wine (especially Chianti), beer, chocolate, colas, coffee, tea, sour cream, beef/chicken livers, game meat, canned figs, soy sauce, meat tenderizer (MSG), pickled herring, smoked/processed meats (lunch meats, sausage, and pepperoni), yogurt, yeast products, broad beans, sauerkraut, cold remedies, diet pills, or nasal decongestants. To do so could cause a life-threatening condition.
- Be sure to tell any doctor or dentist that you see that you are taking this medication.

LITHIUM

Patient Medication Instruction Sheet

Patient Name _____
 Directions for Use _____

Uses of this Medicine:

Lithium is used for treatment of manic episodes associated with bipolar disorder. Taking lithium regularly also prevents manic episodes or causes fewer, less serious manic episodes in a person with bipolar disorder.

Before Using this Medicine, Be Sure to Tell Your Doctor if You:

- Are allergic to any medicine
- Are pregnant, plan to be, or are breast feeding
- Have heart, kidney, or thyroid disease
- Are taking any other medication, particularly diuretics, haloperidol, nonsteroidal anti-inflammatory drugs (NSAIDs), fluoxetine, or carbamazepine

Side Effects of this Medicine:

REPORT THE FOLLOWING SIDE EFFECTS TO YOUR DOCTOR IMMEDIATELY:

- Lack of coordination
- Blurred vision
- Severe diarrhea
- Persistent nausea and vomiting
- Ringing in the ears
- Confusion
- Slurred speech
- Jerking of arms and legs

SIDE EFFECTS THAT MAY OCCUR BUT THAT MAY NOT REQUIRE A DOCTOR'S ATTENTION UNLESS THEY PERSIST:

- Mild hand tremors
- Dizziness
- GI upset; nausea
- Dry mouth
- Diarrhea

Other Instructions while Taking this Medication:

- Take this medicine exactly as it is prescribed. Do not take more of it or take it more often than it is prescribed. Sometimes it takes several weeks of taking this medication before you begin to feel better. At some point, your doctor may make an adjustment in the dosage.
- Do not drive or operate dangerous machinery until your response to the medication is adjusted. Drowsiness or dizziness can occur.
- Do not stop taking the medication even if you are feeling fine and don't think you need it. Symptoms of mania can occur.
- Take this medication with food or milk to lessen stomach upset, unless otherwise directed by your doctor.
- Use a normal amount of salt in your food. Drink 8 to 10 glasses of water each day. Avoid drinks that contain caffeine (that have a diuretic effect). Have blood tests taken to check lithium level every month or as advised by physician.
- Avoid consuming alcoholic beverages and nonprescription medications without approval from physician.
- Use extra care in hot weather and during activities that cause you to sweat heavily, such as hot baths, saunas, or exercising. The loss of too much water and salt from your body can lead to serious side effects from this medicine.
- Be sure to get enough salt and water in the diet during times of sickness that can deplete the body of water, such as high fever, nausea and vomiting, and diarrhea.
- Carry a card at all times identifying the name of medications being taken.

ANTIPSYCHOTICS (CONVENTIONAL)

Patient Medication Instruction Sheet

Patient Name _____ Drug Prescribed _____

Directions for Use _____

Examples:

Chlorpromazine (Thorazine)	Fluphenazine (Prolixin)	Mesoridazine (Serentil)
Perphenazine (Trilafon)	Prochlorperazine (Compazine)	Promazine (Sparine)
Thioridazine (Mellaril)	Trifluoperazine (Stelazine)	Thiothixene (Navane)
Triflupromazine (Vesprin)	Loxapine (Loxitane)	Haloperidol (Haldol)
Molindone (Moban)	Pimozide (Orap)	

Uses of this Medicine:

Used in the management of psychotic symptoms, acute agitated states, and some are used to treat nausea and vomiting.

Before Using this Medicine, Be Sure to Tell Your Doctor if You:

- Are allergic to any medicine
- Are pregnant, plan to be, or are breast feeding
- Have a history of seizures
- Are taking any other medications (either prescription or over-the-counter)
- Have liver or heart disease
- Have any blood disorders
- Have any other medical problem

Side Effects of this Medicine:

REPORT THE FOLLOWING SIDE EFFECTS TO YOUR DOCTOR IMMEDIATELY:

- Difficulty urinating
- Fainting
- Muscle spasms or stiffness
- Shuffling walk
- Skin rash
- Excitement or restlessness
- Yellow eyes and skin
- Sore throat
- Jerky movements of head, face, or neck

- Worm-like movements of the tongue
- Seizures
- Unusual bleeding; easy bruising
- Fever
- Unusually fast heartbeat

SIDE EFFECTS THAT MAY OCCUR BUT THAT MAY NOT REQUIRE A DOCTOR'S ATTENTION:

- Dry mouth
- Blurred vision
- Constipation
- Nausea
- Decreased sweating
- Increased sensitivity to sunburn
- Weight gain
- Dizziness
- Drowsiness

Other Instructions while Taking this Medication:

- Use caution when driving or operating dangerous machinery. Drowsiness and dizziness can occur.
- Do not stop taking the drug abruptly after long-term use. Doing so might produce withdrawal symptoms, such as nausea, vomiting, gastritis, headache, tachycardia, insomnia, and tremulousness.
- Use sunscreens and wear protective clothing when spending time outdoors. Skin is more susceptible to sunburn, which can occur in as little as 30 minutes.
- Rise slowly from a sitting or lying position to prevent a sudden drop in blood pressure.
- Take frequent sips of water, chew sugarless gum, or suck on hard candy if experiencing a problem with dry mouth.
- Dress warmly in cold weather, and avoid extended exposure to very high or low temperatures. Body temperature is harder to maintain with this medication.
- Do not drink alcohol while on antipsychotic therapy. These drugs potentiate each other's effects.
- Do not consume other medications (including over-the-counter products) without the physician's approval. Many medications contain substances that interact with antipsychotics in a way that may be harmful.
- Continue to take medication, even if feeling well and as though it is not needed. Symptoms may return if medication is discontinued.
- Some of these medications may turn the urine pink to red or reddish brown. This is harmless.

ANTIPSYCHOTICS (ATYPICAL)

Patient Medication Instruction Sheet

Patient Name _____ Drug Prescribed _____

Directions for Use _____

Examples:

- Risperidone (Risperdal)
- Clozapine (Clozaril)
- Olanzapine (Zyprexa)
- Quetiapine (Seroquel)
- Ziprasidone (Geodon)

Uses of this Medicine:

Used in the management of schizophrenia, bipolar mania, and dementia-related psychotic symptoms.

Before Using this Medicine, Be Sure to Tell Your Doctor if You:

- Are allergic to any medicine
- Are pregnant, plan to be, or are breast feeding
- Have a history of seizures
- Are taking any other medications (either prescription or over-the-counter)
- Have liver or heart disease
- Have any blood disorders
- Have any other medical problem

Side Effects of this Medicine:

REPORT THE FOLLOWING SIDE EFFECTS TO YOUR DOCTOR IMMEDIATELY:

- Difficulty urinating
- Fainting
- Muscle spasms or stiffness
- Shuffling walk
- Skin rash
- Excitement or restlessness
- Yellow eyes and skin
- Sore throat
- Jerky movements of head, face, or neck
- Worm-like movements of the tongue
- Seizures
- Unusual bleeding; easy bruising
- Fever
- Unusually fast heartbeat

SIDE EFFECTS THAT MAY OCCUR BUT THAT MAY NOT REQUIRE A DOCTOR'S ATTENTION:

- Dry mouth
- Blurred vision
- Constipation
- Nausea
- Decreased sweating
- Increased sensitivity to sunburn
- Weight gain
- Dizziness
- Drowsiness

Other Instructions while Taking this Medication:

- Use caution when driving or operating dangerous machinery. Drowsiness and dizziness can occur.
- Do not stop taking the drug abruptly after long-term use. Doing so might produce withdrawal symptoms, such as nausea, vomiting, gastritis, headache, tachycardia, insomnia, and tremulousness.
- Use sunscreens and wear protective clothing when spending time outdoors. Skin is more susceptible to sunburn, which can occur in as little as 30 minutes.
- Rise slowly from a sitting or lying position to prevent a sudden drop in blood pressure.
- Take frequent sips of water, chew sugarless gum, or suck on hard candy if you have dry mouth.
- Dress warmly in cold weather and avoid extended exposure to very high or low temperatures. Body temperature is harder to maintain with this medication.
- Do not drink alcohol while on antipsychotic therapy. These drugs potentiate each other's effects.
- Do not consume other medications (including over-the-counter products) without physician's approval. Many medications contain substances that interact with antipsychotics in a way that may be harmful.
- Continue to take medication, even if feeling well and as though it is not needed. Symptoms may return if medication is discontinued.
- Report weekly (if receiving clozapine therapy) to have blood levels drawn and to obtain a weekly supply of the drug.

CNS STIMULANTS (AMPHETAMINES, METHYLPHENIDATE, & PEMOLINE)

Patient Medication Instruction Sheet

Patient Name _____ Drug Prescribed _____

Directions for Use _____

Examples and Uses of this Medicine:

These medications are used in the treatment of narcolepsy and in Attention Deficit Hyperactivity Disorder (ADHD) in children and adults. Examples include: amphetamine sulfate, dextroamphetamine sulfate (Dexedrine), methamphetamine (Desoxyn), methylphenidate (Ritalin), pemoline (Cylert), and dextroamphetamine/amphetamine mixture (Adderall).

Before Using this Medicine, Be Sure to Tell Your Doctor if You:

- Are allergic to any medicine
- Are pregnant, plan to be, or are breast feeding
- Have glaucoma
- Are taking any other medications
- Have a history of tics or Tourette's disorder
- Have arteriosclerosis
- Have a history of heart disease
- Have high blood pressure
- Have a history of hyperthyroidism
- Have taken an MAOI within 14 days
- Have any other medical problem

Side Effects of this Medicine:

REPORT THE FOLLOWING SIDE EFFECTS TO YOUR DOCTOR IMMEDIATELY:

- Insomnia
- Severe, persistent headache
- Rapid, pounding heartbeat
- Skin rash
- Restlessness or agitation

SIDE EFFECTS THAT MAY OCCUR BUT THAT MAY NOT REQUIRE A DOCTOR'S ATTENTION:

- Dry mouth
- Anorexia
- Dizziness
- Nausea
- Constipation

Other Instructions while Taking this Medication:

- Use caution in driving or operating dangerous machinery. Dizziness can occur.
- Do not stop taking the drug abruptly. Doing so can cause fatigue and mental depression. Tell the physician if you wish to discontinue this medication.
- Take medication no later than 6 hours before bedtime to prevent insomnia.
- Do not take other medications (including over-the-counter drugs) without physician's approval. Many medications contain substances that, in combination with CNS stimulants, can be harmful.
- Diabetic clients should monitor blood sugar two or three times a day or as instructed by the physician. Be aware of need for possible alteration in insulin requirements because of changes in food intake, weight, and activity.
- Avoid consumption of large amounts of caffeinated products (coffee, tea, colas, and chocolate). They may increase restlessness and stimulation.
- Carry a card or other identification at all times describing medications being taken.

CNS STIMULANTS (ANOREXIGENICS)

Patient Medication Instruction Sheet

Patient Name _____ Drug Prescribed _____

Directions for Use _____

Examples and Uses of this Medicine:

These medications are used in the management of exogenous obesity, in conjunction with a reduced-calorie diet. Examples include: benzphetamine (Didrex), diethylpropion (Tenuate), phendimetrazine (Prelu-2; Plegine), phentermine (Fastin; Ionamin; Adipex-P), and sibutramine (Meridia).

Before Using this Medicine, Be Sure to tell Your Doctor if You:

- Are allergic to any medicine
- Are pregnant, plan to be, or are breast feeding
- Have glaucoma
- Are taking any other medications
- Have a history of tics or Tourette's disorder
- Have arteriosclerosis
- Have a history of heart disease
- Have high blood pressure
- Have a history of hyperthyroidism
- Have taken an MAOI within 14 days
- Have any other medical problem
- Have a history of seizures

Side Effects of this Medicine:

REPORT THE FOLLOWING SIDE EFFECTS TO YOUR DOCTOR IMMEDIATELY:

- Insomnia
- Severe, persistent headache
- Sore throat or fever
- Rapid, pounding heartbeat
- Skin rash
- Fainting
- Restlessness or agitation

SIDE EFFECTS THAT MAY OCCUR BUT THAT MAY NOT REQUIRE A DOCTOR'S ATTENTION:

- Dry mouth
- Anorexia
- Dizziness
- Nausea
- Constipation
- Blurred vision

Other Instructions while Taking this Medication:

- Use caution in driving or operating dangerous machinery. Dizziness can occur.
- Do not stop taking the drug abruptly. Doing so can cause fatigue and mental depression. Tell the physician if you wish to discontinue this medicine.
- Take medication no later than 6 hours before bedtime to prevent insomnia.
- Do not take other medications (including over-the-counter drugs) without the physician's approval. Many medications contain substances that, in combination with CNS stimulants, can be harmful.
- Diabetic clients should monitor blood sugar two or three times a day or as instructed by the physician. Be aware of need for possible alteration in insulin requirements because of changes in food intake, weight, and activity.
- Avoid consumption of large amounts of caffeinated products (coffee, tea, colas, and chocolate). They may increase restlessness and stimulation.
- Take medication as prescribed by physician. Do not take larger dose or take more frequently than prescribed. This medication can become habit-forming.
- Follow reduced-calorie diet and program of regular exercise. Do not exceed the recommended dose if the appetite suppressant effect diminishes. Contact the doctor.

DEPRESSION

What is Depression?

It is normal to feel “blue” sometimes. In fact, feelings of sadness or disappointment are quite common, particularly in response to a loss, a failure, or even a change. Depression is different than just feeling blue or unhappy. The severity of the feelings, how long they last, and the presence of other symptoms are some of the factors that separate normal sadness from depression. Depression is more common in women than it is in men, and its probability increases with age.

What are the Symptoms of Depression?

(From the National Institute of Mental Health)

- Persistent sad, anxious or “empty” feeling
- Loss of interest or pleasure in ordinary activities, including sex
- Decreased energy, fatigue, feeling “slowed down”
- Sleep problems (insomnia, oversleeping, and early-morning waking)
- Feelings of guilt, worthlessness, or helplessness
- Recurring aches and pains that don’t respond to treatment
- Irritability
- Excessive crying
- Feelings of hopelessness or pessimism
- Eating problems (loss of appetite or weight or weight gain)
- Difficulty concentrating, remembering, or making decisions
- Thoughts of death or suicide; a suicide attempt

What Causes Depression?

The causes of depression are not fully known. It is most likely caused by a combination of factors.

GENETIC. A lot of research has been done to determine if depression is hereditary. Although no direct mode of hereditary transmission has been discovered, it has been found that depression does run in families. You are more likely to get depressed if a close biological relative has or has had the illness.

BIOLOGICAL. Depression is thought to be caused by a chemical imbalance in the brain. Neurotransmitters called serotonin, norepinephrine, and dopamine have been found to be deficient in people with depressive symptoms.

HORMONAL. In women, the female hormones estrogen and progesterone most likely play a role in depression. These hormones contribute to premenstrual depression, postpartum depression, and depression associated with menopause.

MEDICATION SIDE EFFECTS. Some medications, such as steroids, hormones, cancer chemotherapy, and antiparkinsonian agents, cause depression as a side effect.

NUTRITION DEFICIENCIES. Deficiencies in vitamins B1, B6, B12, and C and niacin, iron, folic acid, zinc, and protein may produce symptoms of depression.

How is Depression Diagnosed?

A mental health specialist, such as a psychiatrist, social worker, or psychologist, is the best source for a diagnosis of depression. A pencil and paper screening test may be administered, but generally depression is diagnosed based on symptoms and other criteria.

What is the Treatment for Depression?

Patients with depression have a number of treatment options, including psychotherapy and antidepressant medication. It has been found that either of these options may be effective; however, a combination of the two has been shown to be more effective than either treatment alone. For those who fail to improve with medications and/or psychotherapy, other techniques, such as electroconvulsive therapy (ECT), have proven to be safe and effective for treating depressive symptoms.

Other Contacts:

National Foundation for Depressive Illness, Box 225720, NY, NY

10116, 800-239-1265, <http://www.depression.org>

National Depressive & Manic-Depressive Association., 730 Franklin

St., Ste. 501, Chicago, IL 60610, 800-826-3632,

<http://www.ndmda.org/>

National Alliance for the Mentally Ill, 2107 Wilson Blvd, Ste. 300,

Arlington, VA 22201, 800-950-6264, <http://www.nami.org>

BIPOLAR DISORDER

What is Bipolar Disorder?

Bipolar disorder is sometimes called manic-depressive illness. It is indicated by moods that swing between two opposite extremes:

- Periods of mania (when the mood is elevated and the person is very excited or irritable)
- Periods of depression (when the person is sad and withdrawn)

What are the Symptoms of Bipolar Disorder?

The symptoms of bipolar disorder, depression are the same as those experienced by a person who gets depressed (but does not have bipolar disorder). They are sadness, fatigue, sleep problems, weight changes, inability to concentrate, loss of interest or pleasure in life, and thoughts or attempts of suicide.

Symptoms of bipolar disorder, mania include being very excited, irritable, distracted, and unable to sleep. They have thoughts that race through their heads and sometimes they believe things that are not true. They talk excessively and move about constantly. They may be angry and suspicious and can become violent. Some manic people spend a lot of money and abuse substances. Some manic patients may have thoughts of suicide.

Some people have mixed symptoms in which they experience symptoms of depression part of the day and symptoms of mania part of the day.

Bipolar disorder affects men and women equally. It can occur in childhood, adolescence, adulthood, or late in life.

What Causes Bipolar Disorder?

GENETIC. Bipolar disorder has a strong hereditary factor. It occurs more often within families, and individuals who have close biological relatives with the illness are more likely to get the disease themselves.

BIOLOGICAL. Bipolar disorder is thought to be caused by a chemical imbalance in the brain. Neurotransmitters called dopamine and norepinephrine are elevated in people with manic symptoms.

MEDICATION SIDE EFFECTS. Certain medications, such as steroids, amphetamines, and tricyclic antidepressants, have the potential for initiating a manic episode.

How is Bipolar Disorder Diagnosed?

Bipolar disorder is often difficult to diagnose, and an individual with symptoms should be seen by a mental health professional. A careful history must be completed (taken with the help of the family, if possible) of any and all episodes of depression, mania, or both. Patients often deny problems with mania. Other illnesses must be ruled out, including attention deficit hyperactive disorder, schizophrenia, substance abuse, thyroid disorders, adrenal disorders, and certain neurological disorders, which can all cause mood swings.

What is the Treatment for Bipolar Disorder?

The goals of treating bipolar disorder are to:

1. Treat the episodes of mania and depression when they occur.
2. Decrease the number of episodes that occur.
3. Help the patient function as effectively as possible between episodes.

Treatment is with mood-stabilizing drugs, such as lithium, valproic acid, carbamazepine, or lamotrigine. Antipsychotic medications, such as risperidone, olanzapine, or quetiapine, are sometimes given.

Psychotherapy has been helpful in patients with bipolar disorder to assist in the management of everyday stressors and to help prevent relapse.

Other Contacts:

National Depressive & Manic-Depressive Association., 730 Franklin St., Ste. 501, Chicago, IL 60610, 800-826-3632, <http://www.ndmda.org/>

National Alliance for the Mentally Ill, 2107 Wilson Blvd, Ste. 300, Arlington, VA 22201, 800-950-6264, <http://www.nami.org>

POSTTRAUMATIC STRESS DISORDER (PTSD)

What is PTSD?

PTSD is an anxiety disorder, the symptoms of which occur following exposure to an extreme traumatic stressor. The stressor that triggers these symptoms is outside the norm of human experience and includes events such as military combat, violent personal assault, being kidnapped or taken hostage, terrorist attack, being tortured, being a prisoner of war, natural or manmade disasters, severe automobile accidents, or being diagnosed with a life-threatening illness (*DSM-IVTR*, 2000).

What are the Symptoms of PTSD?

- Recurrent and distressing thoughts about the event
- Nightmares about the event and sleeping problems
- Flashbacks and reliving the event
- Inability to remember parts of the event
- Avoidance of people or activities that remind one of the event
- Emotional withdrawal
- Difficulty concentrating
- Irritability or outbursts of anger
- Exaggerated startle response
- Decreased interest or participation in activities
- Guilt for surviving when others died

What Causes PTSD?

No one really knows why some people develop PTSD and others do not. Some theories include:

- Conditioned learning (People learn throughout their life to respond to stress in certain ways).
- Ineffective coping strategies (Some people naturally have stronger ability to cope than others).
- Extreme severity and long duration of the stressor (It is thought that the more severe the stressor is and the longer it lasts, the more likely the person is to develop PTSD).
- Absence of support systems (Whether a person has significant others in his or her life to offer support in time of extreme stress affects the outcome of the response).
- Presence of preexisting psychopathology (Some individuals who already have an emotional problem may be more likely to develop PTSD in response to an extreme stressor).

- People with a family history of anxiety disorders, who have a history of childhood abuse or neglect, or who experienced early separation from parents (They seem more highly predisposed to develop PTSD).

How is PTSD Diagnosed?

A physical examination to rule out physical illness is conducted. The patient must tell the physician about any anxiety disorders or depression within the family and mention any other contributing factors, such as a history of having experienced a traumatic event. PTSD is best diagnosed by a mental health professional.

What is the Treatment for PTSD?

Group therapy and family therapy are effective treatments for PTSD in association with prescribed medications. Cognitive/behavioral therapy is also recommended. The following medications have been useful in individuals with PTSD:

- Sertraline (Zoloft) and paroxetine (Paxil) are the only two medications approved by the FDA specifically for PTSD. Other SSRIs (fluoxetine [Prozac], citalopram [Celexa], and fluvoxamine [Luvox]) have also been effective.
- Other antidepressants have also been effective: bupropion (Wellbutrin), mirtazapine (Remeron), nefazodone (Serzone), and venlafaxine (Effexor).
- Tricyclic and MAOI antidepressants have been successful with some individuals.
- Benzodiazepines may relieve anxiety, but they are not recommended because they are addictive.
- The antihypertensives propranolol (Inderal) and clonidine (Catapres) and lithium and carbamazepine (Tegretol) have been successful in alleviating nightmares, intrusive recollections, insomnia, startle responses, and angry outbursts associated with PTSD.

Other Contacts:

International Society for Traumatic Stress Studies, 60 Revere Dr., Ste 500, Northbrook, IL 60062, 847-480-9028, <http://www.wistss.org>
National Alliance for the Mentally Ill, 2107 Wilson Blvd, Ste. 300, Arlington, VA 22201, 800-950-6264, <http://www.nami.org>

OBSESSIVE-COMPULSIVE DISORDER (OCD)

What is OCD?

OCD is an anxiety disorder in which a person has recurring thoughts or images (called **obsessions**) and/or repetitive, ritualistic-type behaviors that the individual is unable to keep from doing (called **compulsions**). An individual with OCD may try to suppress these thoughts or behaviors but is unable to do so. The individual knows that the thoughts or behaviors are irrational but feels powerless to stop.

What are the Symptoms of OCD?

The most common obsessions include:

- Repeated thoughts about contamination (e.g., may lead to fear of shaking hands or touching objects).
- Repeated doubts (e.g., repeatedly wondering if they locked the door or turned off an appliance).
- A need to have things in a certain order (e.g., feels intense anxiety when things are out of place).
- Thoughts of aggression (e.g., to hurt a loved one).
- Sexual imagery (e.g., recurring pornographic image).

The most common compulsions include:

- Washing and cleaning (e.g., excessive handwashing or house-cleaning).
- Counting (e.g., counting the number of times that something is done).
- Checking (e.g., checking something that one has done, over and over).
- Requesting or demanding assurances from others.
- Repeating actions (e.g., going in and out of a door or up and down from a chair).
- Ordering (e.g., arranging and rearranging clothes or other items).

The obsessions and compulsions seem to be worse in the face of emotional stress.

What Causes OCD?

The exact causes of OCD are unclear. There appear to be certain contributing factors to the disorder. These include:

BIOCHEMICAL. OCD may be caused by a disturbance in the chemistry of the brain involving the neurotransmitter serotonin.

GENETICS. OCD seems to run in families. Researchers are still looking for specific genetic factors that may contribute to an inherited risk.

LEARNING THEORY. Some clinicians believe that OCD may be the result of certain patterns of learned behavior in one's early family development.

How is OCD Diagnosed?

OCD has different degrees of severity. Some people are able to hide their illness or learn to live with it. In other instances, individuals may not be able to do anything but carry out their rituals, thereby causing a great deal of interference in their lives. Most individuals wait until the illness is severe enough that it is interfering with their social or occupational functioning before they seek treatment. A diagnosis should be made by a mental health professional.

What is the Treatment for OCD?

Antidepressants have been used with success in the treatment of OCD. Clomipramine (Anafranil) was first to be approved by the FDA for this purpose. Because of their effectiveness and low side-effect profile, the SSRIs have become the first line of treatment for OCD. Other antidepressants that have also shown to be effective include nefazodone (Serzone), venlafaxine (Effexor), and mirtazapine (Remeron).

In addition to medication, psychosocial techniques, such as cognitive-behavioral therapy, individual psychotherapy, and relaxation training, have been helpful for some individuals with OCD.

Other Contacts:

The Obsessive Compulsive Foundation, 337 Notch Hill Rd., North Branford, CT 06471, 203-315-2190, <http://www.ocfoundation.org>
National Alliance for the Mentally Ill, 2107 Wilson Blvd, Ste. 300, Arlington, VA 22201, 800-950-6264, <http://www.nami.org>

PANIC DISORDER

What is Panic Disorder?

Panic disorder is characterized by periodic attacks of anxiety, feelings of terror, and intense physical discomfort. The attacks usually last about 15 to 30 minutes. The individual feels nervous and fearful between attacks. The attacks can occur spontaneously or in response to a particular situation. They may occur daily, then remit for months, or they may occur weekly for months at a time.

What are the Symptoms of Panic Disorder?

- Fast, pounding heartbeat
- Shortness of breath
- Nausea
- Fear of going insane
- Chills or hot flashes
- Sweating
- A choking feeling
- Dizziness
- Fear of dying
- Trembling or shaking
- Chest pain
- Feelings of unreality
- Numbness

What Causes Panic Disorder?

The exact cause of panic disorder is unclear. There appear to be certain contributing factors to the disorder:

BIOCHEMICAL. Panic Disorder may be caused by a disturbance in the chemistry of the brain involving the neurotransmitter norepinephrine.

GENETICS. Panic disorder seems to run in families. Many people with panic disorder have close relatives with the disorder.

PSYCHODYNAMICS. This theory suggests that panic disorder may be caused by the inability to solve the early childhood conflict of dependence versus independence.

How is Panic Disorder Diagnosed?

A physical examination to rule out physical illness is conducted. The patient should report any anxiety disorders or depression in other family members and other contributing factors, such as excessive caffeine use, recent life changes, or stressful events. Panic disorder is best diagnosed by a mental health professional.

What is the Treatment for Panic Disorder?

A combination of psychosocial therapy and medication is the treatment of choice for panic disorder. Medications include benzodiazepines (alprazolam [Xanax], lorazepam [Ativan], and clonazepam [Klonopin]). Care must be used in taking these medications because they are addictive. Antidepressants such as the SSRIs are particularly effective and are often first-line treatment for panic disorder. The tricyclics clomipramine (Anafranil) and imipramine (Tofranil) have also been successful in treating this disorder. Individual psychotherapy, cognitive-behavioral therapy, and relaxation training are helpful.

Other Contacts:

Anxiety Disorders Association of America, 11900 Parklawn Dr., Ste 100, Rockville, MD 20852, 301-231-9350, <http://www.adaa.org>
National Anxiety Foundation, 3135 Custer Dr., Lexington, KY 40517, 606-272-7166, <http://lexington-on-line.com/nafmasthead.html>
National Alliance for the Mentally Ill, 2107 Wilson Blvd, Ste. 300, Arlington, VA 22201, 800-950-6264, <http://www.nami.org>

EATING DISORDERS

What are Eating Disorders?

The categories of eating disorders include anorexia nervosa, bulimia nervosa, and binge eating. These disorders deal with food obsessions, distorted body images, and obsessional thinness. In reality, they have little to do with food and more to do with psychological and emotional factors. Ninety percent of eating disorders occur in women.

What are the Symptoms of Eating Disorders?

In **anorexia nervosa**, the individual has an intense fear of gaining weight. She sees herself as fat, although she may only weigh 85 percent or less of expected weight. She may eat very little and sometimes self-induces vomiting after eating. She exercises excessively. She generally stops having periods. Her blood pressure and temperature are low, and her heartbeat is slow. In **bulimia nervosa**, the individual eats huge amounts of food and follows with self-induced vomiting (purging). The person with bulimia nervosa often abuses laxatives and diuretics. His or her weight is usually within normal range. In **binge eating disorder**, the individual eats huge amounts of food but does not purge. Weight gain can progress to obesity.

What Causes Eating Disorders?

GENETICS. Eating disorders appear to run in families. There is thought to be a hereditary link.

BIOLOGICAL. Eating disorders may be associated with a disturbance in the chemistry of the brain involving the neurotransmitters serotonin and norepinephrine.

FAMILY DYNAMICS. Some clinicians believe that eating behaviors become maladaptive when there are issues of power and control within the family. Perfectionism is expected by the parents to achieve love and

affection. Distorted eating patterns may be viewed by the adolescent as a way to gain and remain in control.

How are Eating Disorders Diagnosed?

Denial (on the part of both the parent and the child) is common in eating disorders. The disorder may progress to a serious condition before treatment is sought. In anorexia nervosa, the individual may be emaciated, not have periods, and have a distorted self-image. In bulimia, the diagnosis is made if there are at least two bulimic episodes per week for three months. Lab work is completed: blood count, electrolytes, protein levels, electrocardiogram (ECG), and chest x-ray. A bone-density test may be administered.

What is the Treatment for Eating Disorders?

Hospitalization for nutritional stabilization is common for anorexia and sometimes for bulimia. For the person with anorexia, behavior modification with weight gain is the goal. Cognitive-behavioral therapy, interpersonal psychotherapy, and family therapy are used along with medication. Medications for eating disorders include antidepressants (the SSRIs) for anorexia, bulimia, and binge eating; appetite stimulants for anorexia; and anorexigenics for obesity.

Other Contacts:

National Association of Anorexia Nervosa and Associated Disorders,
P.O. Box 7, Highland Park, IL 60035, 847-831-3438, <http://www.anad.org>

Anorexia Nervosa and Related Eating Disorders, Box 5102, Eugene,
OR 97405, 541-344-1144, <http://www.anred.com>

Eating Disorders Awareness and Prevention, 603 Stewart Street, Suite
803, Seattle, WA 98101, 800-931-2237, <http://www.edap.org>

SCHIZOPHRENIA

What is Schizophrenia?

Schizophrenia is a severe, chronic, and often disabling brain disease. It causes severe mental disturbances that disrupt normal thought, speech, and behavior. It can affect anyone at any age, but most cases develop between adolescence and age 30. Schizophrenia impairs a person's ability to think clearly, make decisions, and relate to others.

What are the Symptoms of Schizophrenia?

- Delusions (false ideas)
- Hallucinations (hearing, seeing, or feeling things that are not there)
- Lack of ability to complete activities
- Suspiciousness
- Difficulty socializing with others
- Lack of feeling or emotional expression
- Lack of pleasure or interest in life
- Confused thinking
- Speech that does not make sense

What Causes Schizophrenia?

The cause of schizophrenia is unknown. Several theories exist.

GENETICS. Genetics appears to play a role because schizophrenia seems to run in families.

BIOCHEMICAL. An excess of the neurotransmitter dopamine is thought to play a role in the cause of the disorder. Abnormalities in other neurotransmitters have also been suggested.

BRAIN ABNORMALITIES. Structural and cellular changes in the brain have been noted in people with schizophrenia.

OTHER. Scientists are currently investigating viral infections that occur early in life and mild brain damage from complications during birth as contributing to the development of schizophrenia.

How is Schizophrenia Diagnosed?

To be diagnosed with schizophrenia, a person must have psychotic, “loss-of-reality” symptoms for at least six months and show increasing difficulty in normal functioning. The doctor will rule out other problems that cause psychotic symptoms, such as drugs, mania, major depression, autistic disorder, or personality disorders. Diagnosis should be made by a mental health professional.

What is the Treatment for Schizophrenia?

Hospitalization is necessary to treat severe delusions or hallucinations or inability for self-care. A combination of psychosocial therapy and medication has been effective in treating schizophrenia. Individual psychotherapy, behavioral therapy, social skills training, and family therapy are appropriate, along with antipsychotic medication. Conventional antipsychotics include chlorpromazine (Thorazine), fluphenazine (Prolixin), haloperidol (Haldol), thiothixene (Navane), trifluoperazine (Stelazine), perphenazine (Trilafon), thioridazine (Mellaril), and molindone (Moban). Newer atypical antipsychotics have fewer side effects and include risperidone (Risperdal), clozapine (Clozaril), olanzapine (Zyprexa), quetiapine (Seroquel), and ziprasidone (Geodon). Medications must be taken daily for maintenance of symptoms. Certain ones may be taken by injection at one- to four-week intervals.

Other Contacts:

National Alliance for the Mentally Ill, 2107 Wilson Blvd, Suite 300, Arlington, VA 22201, 800-950-6264, <http://www.nami.org>
World Fellowship for Schizophrenia and Allied Disorders, 869 Yonge St., Suite 104, Toronto, Ontario, M4W 2H2, Canada, <http://www.world-schizophrenia.org>

ALZHEIMER'S DISEASE

What is Alzheimer's Disease?

Alzheimer's disease is a type of dementia characterized by a loss of intellectual abilities involving impairment of memory, judgment, and abstract thinking; coordination of movement; and changes in personality. An estimated 4 million people in the United States have Alzheimer's disease.

What are the Symptoms of Alzheimer's disease?

EARLY STAGES

- Forgetfulness (loses things; forgets names)
- Confusion with performing simple tasks
- Confusion about month or season
- Difficulty making decisions
- Increasing loss of interest in activities
- Depression; anger
- Difficulty completing sentences or finding the right words
- Reduced and/or irrelevant conversation
- Visibly impaired movement or coordination, including slowing of movements, halting gait, and reduced sense of balance

LATER STAGES

- Unable to dress, groom, and toilet self
- Forgets names of close relatives
- Withdrawal; apathy
- Disorientation to surroundings
- Urinary and fecal incontinence
- Wandering
- Loss of language skills

What Causes Alzheimer's Disease?

GENETICS. Hereditary factors appear to play a role in the development of Alzheimer's disease.

BIOLOGICAL. There is an imbalance in the neurotransmitter acetylcholine. Levels of serotonin and norepinephrine may also be affected.

BRAIN CHANGES. Twisted nerve cell fibers, called neurofibrillary tangles, and a high concentration of plaques of a protein known as beta amyloid are found in the brains of people with Alzheimer's disease.

HEAD INJURY. Injury to the head can accelerate the development of Alzheimer's in people who are susceptible to it.

DOWN'S SYNDROME. People with Down's syndrome are especially susceptible to Alzheimer's disease.

How is Alzheimer's Disease Diagnosed?

Family members report difficulties with memory, language, behavior, reasoning, and orientation. The physician then conducts a history and physical examination. Diagnostic laboratory tests are performed. CT scans or MRI may be used to rule out tumors or stroke. The neurologist will perform a mental status exam and possibly other cognitive and functional-ability tests.

What is the Treatment for Alzheimer's disease?

Treatment for Alzheimer's disease involves assistance with hygiene, dressing, grooming, toileting, and food preparation. Safety is an important issue, particularly as the individual begins to have difficulty with balance and coordination, and if he or she tends to wander. Individuals with Alzheimer's disease require help with all activities of daily living, and as the disease progresses, they usually require institutionalization. Some medications have been approved for treating the symptoms of Alzheimer's disease. These include: tacrine (Cognex), donepezil (Aricept), rivastigmine (Exelon), and galantamine (Reminyl). These medications slow the progression of cognitive, functional, and behavioral symptoms in some individuals with Alzheimer's disease.

Other Contacts:

Alzheimer's Association, 919 N. Michigan Ave, Ste. 1000, Chicago, IL 60611, 800-272-3900, <http://www.alz.org>
 Alzheimer's Disease Education and Referral Center, PO Box 8250, Silver Spring, MD 20907, 800-438-4380, <http://www.alzheimers.org>

ALCOHOLISM

What is Alcoholism?

Alcoholism is a disease in which an individual is dependent upon alcohol. About 9 million persons in the United States have this disease. It is a life-long illness, it is incurable, and the only cure is total abstinence from alcohol.

What are the Symptoms of Alcoholism?

Alcoholism may begin with social drinking or drinking to relieve stress and tension. As the individual continues to drink, tolerance develops, and the amount required to achieve the desired effect increases steadily. This progresses to blackouts—periods of drinking time that the individual is unable to remember. The disease has now progressed to the point that the individual requires alcohol to prevent withdrawal symptoms, yet denial of problems is common. Binges occur leading to physical illness and/or loss of consciousness. Abstaining from alcohol at this point can lead to tremors, hallucinations, convulsions, and severe agitation. Chronic alcoholism leads to many serious physical problems involving the heart, brain, and gastrointestinal system.

What Causes Alcoholism?

GENETIC. Alcoholism is thought to have a strong hereditary component.

BIOLOGICAL. There may be a connection between alcoholism and certain neurotransmitters that form addictive substances in the brain when they combine with the products of alcohol metabolism.

SOCIAL LEARNING. Drinking alcohol may be learned early in the family of origin, thereby leading to a problem with drinking.

CULTURAL. The incidence of alcohol abuse and dependence is higher in some cultures than others.

How is Alcoholism Diagnosed?

Alcoholism is diagnosed when the use of alcohol interferes with any aspect of the individual's life. The individual continues to drink even though he or she understands the negative consequences. When dependence occurs, the individual develops a tolerance and requires more and more of the substance. A syndrome of withdrawal symptoms occurs when the individual stops drinking or drastically cuts down on the amount consumed.

What is the Treatment for Alcoholism?

- **Rehabilitation Programs.** Help the individual get dry and, through therapy, to work toward achieving and maintaining sobriety.
- **Alcoholics Anonymous.** Self-help support groups made up of alcoholics who work to help each other achieve and maintain sobriety.
- **Medications.** Disulfiram (Antabuse) is a deterrent therapy. Individuals who drink alcohol while taking this drug become very ill. Naltrexone (ReVia) and nalmefene (Revex) have been used with some success in the treatment of alcoholism.

Other Contacts:

Alcoholics Anonymous, PO Box 459, Grand Central Station, New York, NY 10163, 212-870-3400, <http://www.alcoholics-anonymous.org>

National Institutes of Health, National Institute on Alcohol Abuse and Alcoholism, 6000 Executive Blvd.—Willco Building, Bethesda, MD 20892, <http://www.niaaa.nih.gov>

HIV DISEASE

What is HIV Disease?

HIV disease is a condition in which the individual suffers from severe suppression of the immune system related to infection with the human immunodeficiency virus (HIV). Because of this immunosuppression, the individual is highly susceptible to many diseases.

What are the Symptoms of HIV Disease?

- Rapid weight loss
- Dry cough
- Memory loss, depression, and other neurological
- Swollen lymph glands in the armpits, groin, or neck
- Diarrhea that lasts for more than a week
- White spots on the tongue, in the mouth, or in the throat
- Recurring fever or profuse night sweats
- Profound and unexplained fatigue
- Red, brown, pink, or purplish blotches on or under the disorders skin or inside the mouth, nose, or eyelids
- Pneumonia

What Causes HIV Disease?

HIV is passed from one person to another through homosexual and heterosexual contact, through transfusion with infected blood products, and by being stuck with a needle infected with HIV. In addition, pregnant women can pass HIV to their baby during pregnancy or delivery or through breast feeding.

To prevent transmission: Use latex-rubber condoms against sexual transmission; do not share needles or syringes; do not share toothbrushes, razors, or other implements that may be contaminated with blood or body fluids; and avoid becoming pregnant if at risk for HIV

infection. Individuals with HIV should ensure that all food is well cooked, avoid crowds, avoid traveling in countries with poor sanitation, avoid vaccines that contain live organisms, and consult physician before obtaining a pet.

How is HIV Disease Diagnosed?

There are two types of blood tests used to diagnose HIV infection: one that detects the presence of HIV-specific antibodies that the body produces in response to the virus and another type that detects the presence of the virus itself.

What is the Treatment for HIV Disease?

- **Medication.** Antiretroviral agents are used to interfere with the replication of the HIV virus. Other medications such as antibiotics, antifungal agents, antiviral agents, and antineoplastic agents are used to treat other conditions associated with HIV disease. Antianxiety agents, antidepressants, mood-stabilizing drugs, and antipsychotics may be prescribed for relief from associated symptoms that may accompany HIV disease.
- **Nutrition.** Some individuals with HIV have a wasting syndrome that includes major weight loss, chronic diarrhea, weakness, and fever. Loss of appetite, malnutrition, and wasting may be treated with dronabinol (Marinol), megestrol (Megace), or somatropin (Serostim).

Other Contacts:

Centers for Disease Control and Prevention, 1600 Clifton Rd., Atlanta, GA 30333, 800-311-3435, AIDS Hotline: 800-342-2437,

<http://www.cdc.gov/hiv/pubs/facts.htm>

AVERT, 4 Brighton Rd., Horsham, West Sussex, RH13 5BA, England,

<http://www.avert.org>

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD)

What is ADHD?

ADHD is a behavior disorder that is characterized by hyperactivity, impulsiveness, inattention, or a combination of these behaviors that are more frequent and severe than would be expected for the age. It is usually not diagnosed before age 4 and is more common in boys than it is in girls. ADHD can also be a disorder in adults.

What are the Symptoms of ADHD?

There are three subtypes of the disorder:

1. **ADHD, Inattentive type:** has difficulty paying attention; does not listen when spoken to; is easily distracted; does not follow through on instructions; has difficulty organizing tasks and activities
2. **ADHD, Hyperactive-Impulsive type:** has trouble sitting still; gets up out of seat at times when expected to remain seated; cannot play quietly; talks excessively; blurts out answers before questions are completed; has difficulty waiting turn; often interrupts or intrudes on others
3. **ADHD, Combined type:** displays a combination of behaviors associated with the above two types

What Causes ADHD?

GENETICS. Hereditary factors appear to be a factor in the development of ADHD.

BIOCHEMICAL. Low levels of dopamine and norepinephrine have been implicated as a cause of ADHD.

PERINATAL FACTORS. Perinatal factors implicated include: problem pregnancies and difficult deliveries; maternal smoking and use of alcohol or other drugs during pregnancy; and exposure during pregnancy to environmental toxins.

ENVIRONMENTAL FACTORS. Exposure to environmental lead may be an influential factor.

EARLY FAMILY LIFE. A chaotic family environment, a disruption in bonding during the first 3 years of life, and infant malnutrition may be a contributing factor to ADHD.

How is ADHD Diagnosed?

ADHD is difficult to diagnose. A mother's description of her child's behavior can be the most accurate and reliable guide for diagnosing ADHD. A detailed history of the child's behavior will be matched against a standardized checklist used to define the disorder. The physician will inquire about problem behaviors at home and school, sibling relationships, recent life changes, family history of ADHD, eating and sleeping patterns, and speech and language development. A medical history will be taken of the child and also of the mother's pregnancy and delivery. A physical examination will be conducted. Screening tests may be used to test neurological, intellectual, and emotional development.

What is the Treatment for ADHD?

Behavior modification and family therapy, in combination with medication, is used to treat ADHD. Medications include: CNS stimulants, including methylphenidate (Ritalin); dextroamphetamine (Dexedrine); pemoline (Cylert); and dextroamphetamine/amphetamine composite (Adderall). Other medications used for ADHD include the antidepressant bupropion (Wellbutrin) and, most recently, the selective serotonin reuptake inhibitors (SSRIs).

Other Contacts:

National Institute of Mental Health, 6001 Executive Blvd, Rm 8184, MSC 9663, Bethesda, MD 20892, 301-443-4513,

<http://www.nimh.nih.gov/publicat/adhdmnu.cfm>

National Attention Deficit Disorder Association, 1788 Second Street, Suite 200, Highland Park, IL 60035, 847-432-ADDA,

<http://www.add.org>

Consider psychological, social, and occupational functioning on a hypothetical continuum of mental health-illness. Do not include impairment in functioning resulting from physical (or environmental) limitations.

CODE	(NOTE: USE INTERMEDIATE CODES WHEN APPROPRIATE [E.G., 45, 68, 72])
100	Superior functioning in a wide range of activities, life's problems never seem to get out of hand, is sought out by others because of his or her many positive qualities. No symptoms.
91	
90	Absent or minimal symptoms (e.g., mild anxiety before an exam), good functioning in all areas, interested and involved in a wide range of activities, socially effective, generally satisfied with life, no more than everyday problems or concerns (e.g., an occasional argument with family members).
81	
80	If symptoms are present, they are transient and expected reactions to psychosocial stressors (e.g., difficulty concentrating after family argument); no more than slight impairment in social, occupational, or school functioning (e.g., temporarily falling behind in schoolwork).
71	
70	Some mild symptoms (e.g., depressed mood and mild insomnia) OR some difficulty in social, occupational, or school functioning (e.g., occasional truancy or theft in the household), but generally functioning pretty well; has some meaningful interpersonal relationships.
61	
60	Moderate symptoms (e.g., flat affect and circumstantial speech, occasional panic attacks) OR moderate difficulty in social, occupational, or school functioning (e.g., few friends, conflicts with peers or coworkers).
51	
50	Serious symptoms (e.g., suicidal ideation, severe obsessional rituals, frequent shoplifting) OR any serious impairment in social, occupational, or school functioning (e.g., no friends, unable to keep a job).
41	
40	Some impairment in reality testing or communication (e.g., speech is at times illogical, obscure, or irrelevant) OR major impairment in several areas, such as work or school, family relations, judgment, thinking, or mood (e.g., depressed man avoids friends, neglects family, and is unable to work; child frequently beats up younger children, is defiant at home, and is failing at school).
31	
30	Behavior is considerably influenced by delusions or hallucinations OR serious impairment in communication or judgment (e.g., sometimes incoherent, acts grossly inappropriately, suicidal preoccupation) OR inability to function in almost all areas (e.g., stays in bed all day; no job, home, or friends).
21	
20	Some degree of hurting self or others (e.g., suicide attempts without clear expectation of death; frequently violent; manic excitement) OR occasionally fails to maintain minimal personal hygiene (e.g., smears feces) OR gross impairment in communication (e.g., largely incoherent or mute).
11	
10	Persistent danger of severely hurting self or others (e.g., recurrent violence) OR persistent inability to maintain minimal personal hygiene OR serious suicidal act with clear expectation of death.
1	
0	Inadequate information.

SOURCE: *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) *Text Revision*. (2000). Washington, DC: American Psychiatric Association. With permission.



Additional Clinical Tools: Medication Assessment Tool

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Date _____ Client's Name _____ Age _____
 Marital Status _____ Children _____ Occupation _____
 Presenting Symptoms (subjective & objective) _____

Diagnosis (DSM-IV-TR) _____

Current Vital Signs: Blood Pressure: Sitting _____/_____; Standing _____/_____; Pulse _____; Respirations _____

CURRENT/PAST USE OF PRESCRIPTION DRUGS (Indicate with "c" or "p" beside name of drug whether current or past use):

Name	Dosage	How Long Used	Why Prescribed	By Whom	Side Effects/Results
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

CURRENT/PAST USE OF OVER-THE-COUNTER DRUGS (Indicate with "c" or "p" beside name of drug whether current or past use):

Name	Dosage	How Long Used	Why Prescribed	By Whom	Side Effects/Results
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

CURRENT/PAST USE OF STREET DRUGS, ALCOHOL, NICOTINE, AND/OR CAFFEINE (Indicate with "c" or "p" beside name of drug):

Name	Amount Used	How Often Used	When Last Used	Effects Produced
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Any allergies to food or drugs? _____

Any special diet considerations? _____

Do you have (or have you ever had) any of the following? If yes, provide explanation on the back of this sheet.

	Yes	No		Yes	No		Yes	No
1. Difficulty swallowing	_____	_____	12. Chest pain	_____	_____	22. Shortness of breath	_____	_____
2. Delayed wound healing	_____	_____	13. Blood clots/pain in legs	_____	_____	23. Sexual dysfunction	_____	_____
3. Constipation problems	_____	_____	14. Fainting spells	_____	_____	24. Lumps in your breasts	_____	_____
4. Urination problems	_____	_____	15. Swollen ankles/legs/ hands	_____	_____	25. Blurred or double vision	_____	_____
5. Recent change in elimination patterns	_____	_____	16. Asthma	_____	_____	26. Ringing in the ears	_____	_____
6. Weakness or tremors	_____	_____	17. Varicose veins	_____	_____	27. Insomnia	_____	_____
7. Seizures	_____	_____	18. Numbness/tingling	_____	_____	28. Skin rashes	_____	_____
8. Headaches	_____	_____	(location?)	_____	_____	29. Diabetes	_____	_____
9. Dizziness	_____	_____	19. Ulcers	_____	_____	30. Hepatitis (or other liver disease)	_____	_____
10. High blood pressure	_____	_____	20. Nausea/vomiting	_____	_____	31. Kidney disease	_____	_____
11. Palpitations	_____	_____	21. Problems with diarrhea	_____	_____	32. Glaucoma	_____	_____

Continued on the following page



Additional Clinical Tools: *Medication Assessment Tool (Cont'd)*

Are you pregnant or breast feeding? _____ Date of last menses _____ Type of contraception used _____

Describe any restrictions/limitations that might interfere with your use of medication for your current problem. _____

Prescription orders:

Patient teaching related to medications prescribed:

Lab work or referrals prescribed:

Nurse's signature _____

Client's signature _____

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Answers: *Learning Activities*

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Chapter 1

Chapter 2

Chapter 3

Chapter 4

Chapter 5

Chapter 6

Chapter 7

Chapter 8

Chapter 9

Chapter 10

Chapter 11

Chapter 12

Chapter 13

Chapter 14

Chapter 15

Chapter 16

Chapter 17

Chapter 18

Chapter 19

Chapter 20

Chapter 21

Chapter 22

Chapter 23

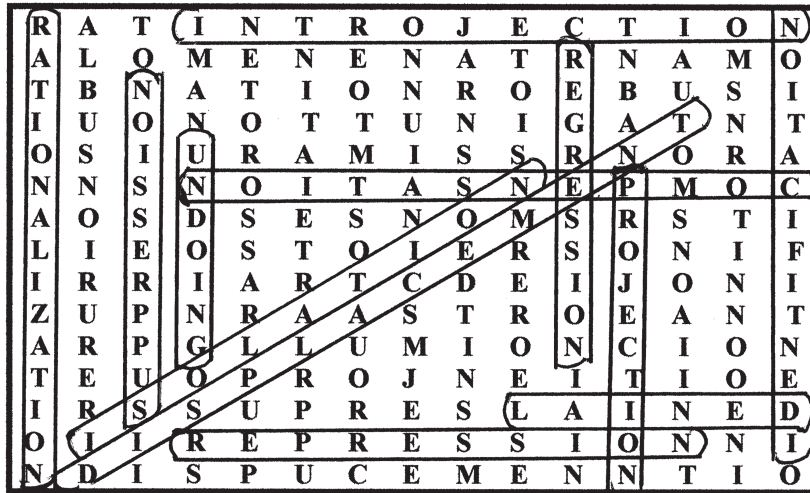
Chapter 24

Chapter 25

CHAPTER 1. MENTAL HEALTH AND MENTAL ILLNESS

Exercise 1. EGO DEFENSE MECHANISMS

- | | | |
|-----------------|-------------------|---------------------|
| 1. displacement | 5. introjection | 9. repression |
| 2. undoing | 6. identification | 10. projection |
| 3. isolation | 7. regression | 11. suppression |
| 4. denial | 8. compensation | 12. rationalization |



Exercise 2. THE GRIEF RESPONSE

- | | | |
|---------------|---------------|----------------|
| 1. Anger | 5. Depression | 9. Bargaining |
| 2. Denial | 6. Anger | 10. Acceptance |
| 3. Acceptance | 7. Denial | |
| 4. Bargaining | 8. Depression | |

CHAPTER 2. CONCEPTS OF PERSONALITY DEVELOPMENT

Exercise 1. THREE COMPONENTS OF THE PERSONALITY

- | | | |
|-------------|--------|--------------|
| 1. id | 5. id | 9. ego |
| 2. superego | 6. ego | 10. superego |

- | | |
|--------|-------------|
| 3. ego | 7. superego |
| 4. id | 8. id |

Exercise 2. ERIKSON'S STAGES OF DEVELOPMENT

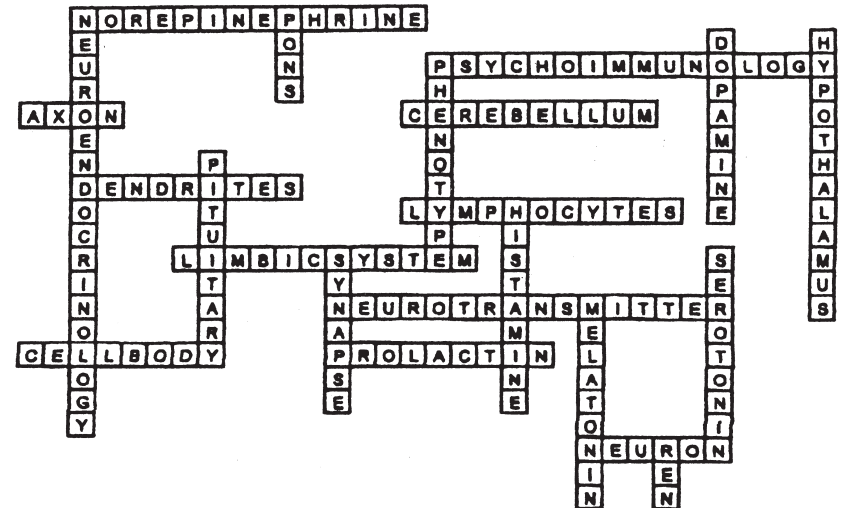
- | | | |
|------|-------|-------|
| 1. e | 7. g | 13. p |
| 2. b | 8. n | 14. k |
| 3. l | 9. i | 15. c |
| 4. h | 10. f | 16. m |
| 5. o | 11. j | |
| 6. d | 12. a | |

CHAPTER 3: BIOLOGICAL IMPLICATIONS

Exercise 1. LABEL THE PARTS OF THE BRAIN

- | | |
|-------------------|---------------|
| 1. Frontal Lobe | 4. Medulla |
| 5. Parietal Lobe | 7. Cerebellum |
| 2. Temporal lobe | 3. Pons |
| 6. Occipital lobe | |

Exercise 2. CROSSWORD



Continued on the following page

CHAPTER 4. ETHICAL AND LEGAL ISSUES

- | | | |
|------|-------|-------|
| 1. j | 7. l | 13. o |
| 2. g | 8. e | 14. n |
| 3. b | 9. p | 15. h |
| 4. r | 10. i | 16. f |
| 5. m | 11. k | 17. q |
| 6. a | 12. c | 18. d |

CHAPTER 5. RELATIONSHIP DEVELOPMENT AND THERAPEUTIC COMMUNICATION

Exercise I. CONDITIONS ESSENTIAL TO DEVELOPMENT OF A THERAPEUTIC RELATIONSHIP

- | | | |
|------|------|------|
| 1. b | 2. d | 3. a |
| 4. c | 5. e | |

Exercise 2. PHASES OF RELATIONSHIP DEVELOPMENT

- | | | |
|------|------|-------|
| 1. b | 5. d | 8. d |
| 2. a | 6. a | 9. d |
| 3. c | 7. c | 10. c |
| 4. b | | |

Exercise 3. INTERPERSONAL COMMUNICATION TECHNIQUES

- | | |
|----------------------------|--------------------------------|
| 1. Voicing doubt (T) | 9. Verbalizing the implied (T) |
| 2. Belittling feelings (N) | 10. Giving reassurance (N) |
| 3. Focusing (T) | 11. Restating (T) |
| 4. Giving recognition (T) | 12. Giving advice (N) |
| 5. Indicating an external | 13. Giving broad openings (T) |
| 6. Reflecting (T) | 14. Rejecting (N) |
| 7. Defending (N) | 15. Requesting explanation (N) |
| 8. Exploring (T) | source of power (N) |

CHAPTER 6. THE NURSING PROCESS IN PSYCHIATRIC/MENTAL HEALTH NURSING

1. Assessment data
 - a. Picks up a chair, as if to use it for protection. Threatened to harm anyone who came close to him in the department store.
 - b. Talks and laughs to himself, and tilts his head to the side.
 - c. Keeps to himself, and walks away when anyone approaches him.
 - d. Appearance is unkempt. Clothes are dirty and wrinkled, hair is oily and uncombed, and there is obvious body odor about him.
2. Nursing diagnoses
 - a. Risk for other-directed violence
 - b. Disturbed sensory-perception (hallucinations)
 - c. Social isolation
 - d. Self-care deficit
3. Outcome criteria
 - a. Sam has not harmed self or others.
 - b. Sam is able to define and test reality.
 - c. Sam approaches others in an appropriate manner for 1:1 interaction. Attends group activities voluntarily.
 - d. Sam carries out personal care independently and willingly.
4. Some appropriate nursing interventions include:
 - a. Remove dangerous objects from client's environment.
 - b. Redirect violent behavior with physical outlets.
 - c. Have sufficient staff available to indicate show of strength.
 - d. Administer antipsychotic medication, as ordered (scheduled and p.r.n.)
 - e. Encourage client to share content of hallucination.
 - f. Help client to understand that even though the voices seem real to him, you do not hear the voices.
 - g. Attend groups with client until he feels comfortable attending alone.
 - h. Give positive feedback for voluntary interactions with others.
 - i. Encourage client to be as independent with self-care activities as possible.
 - j. Give positive feedback for self-care activities performed independently.

Continued on the following page

CHAPTER 7. MILIEU—THE THERAPEUTIC ENVIRONMENT

The Interdisciplinary Team

- | | |
|------------------------------|-------------------------------|
| 1. Recreational therapist | 8. Psychiatrist |
| 2. Art therapist | 9. Psychiatric staff nurse |
| 3. Clinical psychologist | 10. Psychiatric social worker |
| 4. Chaplain | 11. Occupational therapist |
| 5. Dietitian | 12. Psychodramatist |
| 6. Music therapist | 13. Mental health technician |
| 7. Clinical nurse specialist | |

The Seven Basic Assumptions of a Therapeutic Community

- | | | |
|------|------|------|
| 1. e | 4. f | 6. d |
| 2. a | 5. b | 7. c |
| 3. g | | |

CHAPTER 8.

Due to the nature of the material in Chapter 8 there is no Learning Activity.

CHAPTER 9. INTERVENING IN CRISES

I. Types of Crises

- | | | |
|------|------|------|
| 1. f | 3. a | 5. d |
| 2. b | 4. e | 6. c |

II. Crisis Intervention: Problem-Solving Process

1. Unresolved separation-individuation tasks:
 - a. Unmet dependency needs
 - b. Dysfunctional grieving
2. To develop a realistic and positive self-perception independent from parents.
 - a. Relinquishing need to secure personal identity through interaction with others.

- b. To progress through the grief process triggered by loss of previous lifestyle and come to terms with acceptance of the change.
3. Explore with Jane those aspects that cannot be changed. For example:
Ted's job requires that he live in the new town.
Jane's family will continue to live in the town from which they moved.
4. Alternatives include:
 - a. Stay with Ted and accept the move (an alternative that is developmentally appropriate for Jane, and that the nurse should encourage).
 - b. Leave Ted and move back to hometown where relatives live (a decision based on developmental regression).
5. Jane will need to weigh the personal benefits and consequences of staying with Ted in the new town and working to accept the move or leaving him and moving back to live near her relatives.
6. Once Jane has made a decision, she may need assistance from the nurse to help her accept it and adapt to the change. Either decision will undoubtedly trigger a grief response, and assistance in progression to acceptance may be required. Jane must make the decision independently, based on knowledge and understanding of what each would mean for her. A decision to remain with Ted will require work on Jane's part to separate adaptively from her parents and form an independent identity (tasks that have gone unfulfilled by Jane). New coping strategies will have to be developed.

CHAPTER 10. PSYCHOPHARMACOLOGY

LEARNING ACTIVITY. PSYCHOTROPIC MEDICATION QUIZ

1. Increase levels of norepinephrine and serotonin
2. Sudden lifts in mood (may indicate suicidal intention)
3. Depending upon the medication, from 1 to 4 weeks
4. Tricyclic = amitriptyline (Elavil)
MAOI = phenelzine (Nardil)
SSRI = fluoxetine (Prozac)

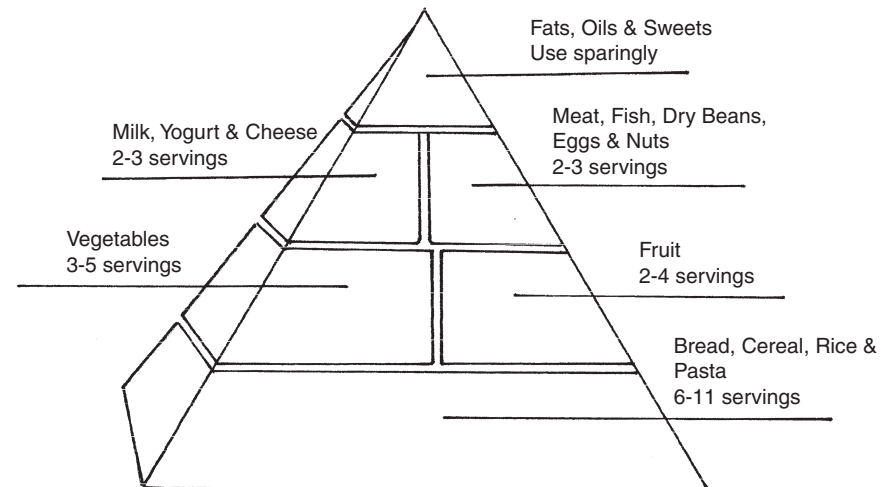
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5.
 - a. Dry mouth (offer sugarless candy, ice, frequent sips of water)
 - b. Constipation (increase fluids and foods high in fiber)
 - c. Sedation (request physician to order given at bedtime)
 - d. Orthostatic hypotension (teach client to rise slowly from a sitting or lying position; take vital signs every shift)
 - e. Lowers seizure threshold (closely observe client, especially those with history of seizures)
6. Hypertensive crisis; nurse should be on the alert for symptoms of severe occipital headache, palpitations, nausea and vomiting, nuchal rigidity, fever, sweating, marked increase in blood pressure, chest pain, coma. Client must avoid foods high in tyramine, such as aged cheeses, pickles herring preserved meats, beer, wine, chocolate, sour cream, yogurt, over-the-counter cold medications, diet pills.
7. Mania. Lithium has a lag time of 1 to 3 weeks. Antipsychotics are prescribed to decrease the hyperactivity on an immediate basis until the lithium can take effect.
8. Therapeutic range: 0.6 to 1.5 mEq/L. Initial signs and symptoms of lithium toxicity are blurred vision, ataxia, tinnitus, persistent nausea, and vomiting, severe diarrhea.
9.
 - a. Give with food.
 - b. Ensure client gets adequate sodium in diet.
 - c. Ensure client drinks 2500 to 3000 cc fluid per day.
 - d. Check for lithium levels before administering dose.
 - e. Monitor client's intake and output.
 - f. May need to instruct client on diet to prevent weight gain.
10. CNS depression.
11. Benzodiazepines: chlordiazepoxide (Librium) and diazepam (Valium).
12. Drowsiness, sedation, confusion, orthostatic hypotension.
13. Client must be instructed not to stop taking the drugs abruptly.
14. Decreases levels or activity of dopamine.
15. Chlorpromazine (Thorazine) and fluphenazine (Prolixin).
16. Decreased libido; retrograde ejaculation; gynecomastia; amenorrhea; weight gain.
17. Sore throat, fever, and malaise.

18. Severe muscle rigidity, fever up to 107°F, tachycardia, tachypnea, fluctuations in blood pressure, diaphoresis, and rapid deterioration of mental status to stupor and coma.
19.
 - a. Pseudoparkinsonism (tremor, shuffling gait, drooling, rigidity)
 - b. Akinesia (muscular weakness)
 - c. Akathisia (continuous restlessness and fidgeting)
 - d. Dystonia (spasms of face, arms, legs, and neck)
 - e. Oculogyric crisis (uncontrolled rolling back of the eyes)
 - f. Sometimes tardive dyskinesia is considered as an extrapyramidal system (bizarre facial and tongue movements; stiff neck, and difficulty swallowing)
20. Antiparkinsonian agents: bengtropine (Cogentin) and trihexyphenidyl (Artane)
21. Depression and suicidal ideation

CHAPTER 11. COMPLEMENTARY AND PSYCHOSOCIAL THERAPIES

Exercise 1. FOOD PYRAMID



Continued on the following page

Exercise 2. PSYCHOSOCIAL THERAPY

1. b
2. d
3. e
4. f
5. c
6. a

CHAPTER 12. COGNITIVE DISORDERS

LEARNING ACTIVITY:

Delirium	Dementia	Amnesic Disorder
1. x		
2.		X
3.	X	
4.	X	
5. x		
6.		X
7. x		
8.	X	
9.		X
10.	X	
11. x		
12. x		
13. x		
14.	X	
15.		X

CHAPTER 13. SUBSTANCE-RELATED DISORDERS

Exercise. SYMPTOMS ASSOCIATED WITH PSYCHOACTIVE SUBSTANCES

Drugs	Symptoms of Use	Symptoms of Intoxication	Symptoms of Withdrawal
CNS Depressants Examples: Anxiolytics Alcohol Sedatives Hypnotics	Relaxation, loss of inhibitions, lack of concentration, drowsiness, slurred speech	Aggressiveness, disinhibition, impaired judgment, incoordination, unsteady gait, slurred speech, disorientation, confusion	Tremors, nausea/vomiting, insomnia, seizures, hallucinations, irritability
CNS Stimulants Examples: Amphetamines Caffeine Cocaine Nicotine	Hyperactivity, agitation, euphoria, insomnia, anorexia, increased pulse	Euphoria, grandiosity, fighting, elevated vital signs, nausea and vomiting, psychomotor agitation	Anxiety, depressed mood, insomnia or hypersomnia, craving for the drug, suicidal ideas (with amphetamines and cocaine)
Opioids Examples: Opium Morphine Codeine Heroin Meperidine	Euphoria, lethargy, drowsiness, lack of motivation	Euphoria, lethargy, somnolence, apathy, dysphoria, impaired judgment, slurred speech, constipation, decreased respiratory rate and blood pressure.	Craving for the drug, nausea/vomiting, muscle aches, lacrimation, rhinorrhea, piloerection or sweating, diarrhea, yawning, fever, insomnia
Hallucinogens Examples: Mescaline LSD PCP	Visual hallucinations, disorientation, confusion, paranoia, euphoria, anxiety, panic, increased pulse	Belligerence, impulsiveness, psychomotor agitation, increased heart rate and blood pressure, ataxia, seizures, panic reaction, delirium	The occurrence of a withdrawal syndrome with these substances has not been established.
Cannabinols Examples: Marijuana Hashish	Relaxation, talkativeness, lowered inhibitions, euphoria, mood swings	Impaired judgment, loss of recent memory, tremors, muscle rigidity, conjunctival redness, panic, paranoia	If high doses are used for a prolonged period, symptoms of nervousness, tremor, insomnia and restlessness may occur upon cessation of use.
Inhalants Examples: Gasoline, lighter fluid, varnish remover, rubber cement, cleaning fluid, spray paint, typewriter correction fluid	(Same as CNS depressants)	Belligerence, apathy, assaultiveness, impaired judgment, dizziness, nystagmus, slurred speech, unsteady gait, lethargy, depressed reflexes, tremor, blurred vision, stupor or coma, euphoria, irritation around eyes, throat, and nose	

Continued on the following page

CHAPTER 14. SCHIZOPHRENIA AND OTHER PSYCHOTIC DISORDERS

Exercise 1. BEHAVIORS ASSOCIATED WITH SCHIZOPHRENIA

- | | | |
|------|-------|-------|
| 1. g | 6. a | 11. c |
| 2. d | 7. h | 12. j |
| 3. o | 8. k | 13. e |
| 4. n | 9. b | 14. l |
| 5. m | 10. i | 15. f |

Exercise 2. CASE STUDY

1. paranoia
2. delusion of grandeur
3. echolalia
4. imitation
5. nihilistic delusion
6. anhedonia
7. body rocking
8. regression
9. anergia
10. apathy
11. autism
12. delusion of reference
 - a. Disturbed thought processes
 - b. An antipsychotic medication
(refer to Chapter 10 for side effects of antipsychotic drugs)
 - c. Trust vs. mistrust because of her extreme suspiciousness
 - d. Generativity vs. self-absorption

CHAPTER 15. MOOD DISORDERS

Exercise. SYMPTOMS OF MOOD DISORDERS

- | | | |
|------|------|-------|
| 1. c | 6. b | 10. a |
| 2. f | 7. e | 11. b |
| 3. a | 8. a | 12. e |
| 4. d | 9. e | 13. f |
| 5. b | | |

CHAPTER 16. ANXIETY DISORDERS

Exercise. BEHAVIORS ASSOCIATED WITH ANXIETY DISORDERS

- | | | |
|------|-------|-------|
| 1. d | 6. a | 11. b |
| 2. g | 7. d | 12. d |
| 3. b | 8. e | 13. g |
| 4. c | 9. c | 14. e |
| 5. f | 10. f | 15. c |

CHAPTER 17. ANXIETY-RELATED DISORDERS

Exercise 1. BEHAVIORS ASSOCIATED WITH SOMATOFORM DISORDERS

1. b; Chronic pain
2. e; Disturbed body image
3. d; Disturbed sensory perception
4. a; Ineffective coping
5. c; Fear

Exercise 2. BEHAVIORS ASSOCIATED WITH DISSOCIATIVE DISORDERS

- | | |
|------|------|
| 1. c | 5. b |
| 2. e | 6. f |
| 3. a | 7. d |
| 4. g | |

CHAPTER 18. DISORDERS OF HUMAN SEXUALITY

Values clarification. Students provide their own answers.

Continued on the following page

CHAPTER 19. EATING DISORDERS

Exercise. SYMPTOMS OF EATING DISORDERS

	Anorexia <i>Nervosa</i>	Bulimia <i>Nervosa</i>	<i>Obesity</i>
1.	X	X	
2.	X		
3.			X
4.		X	
5.	X		
6.	X	X	
7.			X
8.	X		
9.		X	
10.			X
11.		X	
12.			X
13.	X	X	
14.	X	X	X
15.		X	

CHAPTER 20. PERSONALITY DISORDERS

- | | | |
|------|------|-------|
| 1. d | 5. e | 9. g |
| 2. j | 6. i | 10. k |
| 3. | 7. c | 12. b |
| 4. a | 8. h | |

CHAPTER 21. CHILDREN AND ADOLESCENTS

- | | | |
|------|------|-------|
| 1. h | 5. d | 8. i |
| 2. e | 6. g | 9. c |
| 3. j | 7. f | 10. a |
| 4. b | | |

CHAPTER 22. VICTIMS OF ABUSE OR NEGLECT

- | | | |
|------|------|-------|
| 1. d | 6. j | 10. f |
| 2. i | 7. k | 12. e |
| 3. h | 8. a | 13. b |
| 4. c | 9. l | |
| 5. g | | |

CHAPTER 23. THE AGING INDIVIDUAL

Exercise. CASE STUDY

- 77 years old
A widow for 20 years
Lives alone on small farm
Has always been very independent
Has become forgetful in last few years
Forgetfulness has become dangerous to self
Starting to wander
Has caring support system in son and daughter
- Risk for trauma related to confusion, disorientation, and wandering
 - Disturbed thought processes related to age-related cerebral changes evidenced by memory loss, confusion, disorientation, and wandering.
See Table 23–3, Care Plan for the Elderly Client
- The client:
 - has not experienced injury.
 - maintains reality orientation consistent with cognitive level of functioning.
 - can distinguish between reality- and nonreality-based thinking.
 Caregivers and client:
 verbalize understanding of possible need for long-term care placement

Continued on the following page

CHAPTER 24. COMMUNITY MENTAL HEALTH NURSING

Exercise. CONCEPTS AND TERMS ASSOCIATED WITH COMMUNITY MENTAL HEALTH NURSING

1. mobile outreach unit
2. tertiary prevention
3. deinstitutionalization
4. homelessness
5. community
6. case management
7. day treatment programs
8. DRGs
9. primary prevention
10. secondary prevention

CHAPTER 25. THE BEREAVED INDIVIDUAL

1. NORMAL GRIEF VERSUS CLINICAL DEPRESSION

- | | |
|------|-------|
| 1. a | 6. b |
| 2. b | 7. a |
| 3. b | 8. b |
| 4. a | 9. b |
| 5. a | 10. a |

2. CASE STUDY

1. Yes, Sandy's anger is appropriate.
2. Risk for dysfunctional grieving
3. Interventions:
 - a. Assess Sandy's placement in the grief process (anger stage). Help her to understand that feeling anger toward her husband is okay, and is a normal part of the grief process.
 - b. Encourage her to talk about her relationship with her husband.
 - c. Help her to understand that it is normal for her to feel guilty, but there was nothing she could do to prevent her husband from smoking and overeating. Those behaviors belonged to him. She was not responsible.
 - d. Help her to move on by looking at all the roles her husband played in their lives, and how she will undertake management of those roles in his absence. She needs to see that she can manage her life without him, however difficult it will be.
 - e. Provide ongoing support. It may be helpful to refer her to a widows' support group.

A
B
C
D
E
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A

abreaction. “Remembering with feeling;” bringing into conscious awareness painful events that have been repressed, and reexperiencing the emotions that were associated with the events.

acquired immunodeficiency syndrome (AIDS). A condition in which the immune system becomes deficient in its efforts to prevent opportunistic infections, malignancies, and neurological disease. It is caused by the human immunodeficiency virus (HIV), which is passed from one individual to another through body fluids.

acupoints. In Chinese medicine, acupoints represent areas along the body that link pathways of healing energy.

acupressure. A technique in which the fingers, thumbs, palms, or elbows are used to apply pressure to certain points along the body. This pressure is thought to dissolve any obstructions in the flow of healing energy and to restore the body to a healthier functioning.

acupuncture. A technique in which hair-thin, sterile, disposable, stainless-steel needles are inserted into points along the body to dissolve obstructions in the flow of healing energy and restore the body to a healthier functioning.

adaptation. Restoration of the body to homeostasis following a physiological and/or psychological response to stress.

ADC. See AIDS dementia complex.

adjustment disorder. A maladaptive reaction to an identifiable psychosocial stressor that occurs within 3 months after onset of the stressor. The individual shows impairment in social and occupational functioning, or exhibits symptoms that are in excess of a normal and expectable reaction to the stressor.

advance directives. A document, usually a living will or durable power of attorney for healthcare, which allows an individual to provide directions about his or her future medical care.

affect. The behavioral expression of emotion; may be appropriate (congruent with the situation); inappropriate (incongruent with the situation); constricted or blunted (diminished range and intensity); or flat (absence of emotional expression).

aggression. Harsh physical or verbal actions intended (consciously or unconsciously) to harm or injure another.

aggressiveness. Behavior that defends an individual’s own basic rights by violating the basic rights of others (as contrasted with assertiveness).

agoraphobia. The fear of being in places or situations from which escape might be difficult (or embarrassing) or in which help might not be available in the event of a panic attack.

agranulocytosis. Extremely low levels of white blood cells. Symptoms include sore throat, fever, and malaise. This may be a side effect of long-term therapy with some antipsychotic medications.

AIDS. See acquired immunodeficiency syndrome (AIDS).

AIDS dementia complex (ADC). A neuropathological syndrome, possibly caused by chronic HIV encephalitis and myelitis, and manifested by cognitive, behavioral, and motor symptoms that become more severe with progression of the disease.

akathesia. Restlessness; an urgent need for movement. A type of extrapyramidal side effect associated with some antipsychotic medications.

akinesia. Muscular weakness; or a loss or partial loss of muscle movement; a type of extrapyramidal side effect associated with some antipsychotic medications.

Alcoholics Anonymous (AA). A major self-help organization for the treatment of alcoholism. It is based on a 12-step program to help members attain and maintain sobriety. Once individuals have achieved sobriety, they in turn are expected to help other alcoholic persons.

allopathic medicine. Traditional medicine. The type traditionally, and currently, practiced in the United States and taught in U.S. medical schools.

alternative medicine. Practices that differ from usual traditional (allopathic) medicine.

altruism. One curative factor of group therapy (identified by Yalom) in which individuals gain self-esteem through mutual sharing and concern. Providing assistance and support to others creates a positive self-image and promotes self-growth.

altruistic suicide. Suicide based on behavior of a group to which an individual is excessively integrated.

Continued on the following page

amenorrhea. Cessation of the menses; may be a side effect of some antipsychotic medications.

amnesia. An inability to recall important personal information that is too extensive to be explained by ordinary forgetfulness.

amnesia, continuous. The inability to recall events occurring after a specific time up to and including the present.

amnesia, generalized. The inability to recall anything that has happened during the individual's entire lifetime.

amnesia, localized. The inability to recall all incidents associated with a traumatic event for a specific time following the event (usually a few hours to a few days).

amnesia, selective. The inability to recall only certain incidents associated with a traumatic event for a specific time following the event.

amnesia, systematized. The inability to remember events that relate to a specific category of information, such as one's family, a particular person, or an event.

anger. An emotional response to one's perception of a situation. Anger has both positive and negative functions.

anhedonia. The inability to experience or even imagine any pleasant emotion.

anomic suicide. Suicide that occurs in response to changes that occur in an individual's life that disrupt cohesiveness from a group and cause that person to feel without support from the formerly cohesive group.

anorexia. Loss of appetite.

anorexigenics. Drugs that suppress appetite.

anorgasmia. Inability to achieve orgasm.

anosmia. Inability to smell.

anticipatory grief. A subjective state of emotional, physical, and social responses to an anticipated loss of a valued entity. The grief response is repeated once the loss actually occurs, but it may not be as intense as it might have been if anticipatory grieving has not occurred.

antisocial personality disorder. A pattern of socially irresponsible, exploitative, and guiltless behavior, evident in the tendency to fail to conform to the law, develop stable relationships, or sus-

tain consistent employment; exploitation and manipulation of others for personal gain is common.

anxiety. Vague diffuse apprehension that is associated with feelings of uncertainty and helplessness.

aphasia. Inability to communicate through speech, writing, or signs, caused by dysfunction of brain centers.

aphonia. Inability to speak.

apraxia. Inability to carry out motor activities despite intact motor function.

ascites. Excessive accumulation of serous fluid in the abdominal cavity, occurring in response to portal hypertension caused by cirrhosis of the liver.

assault. An act that results in a person's genuine fear and apprehension that he or she will be touched without consent. Nurses may be guilty of assault for threatening to place an individual in restraints against his or her will.

assertiveness. Behavior that enables individuals to act in their own best interests, to stand up for themselves without undue anxiety, to express their honest feelings comfortably, or to exercise their own rights without denying those of others.

associative looseness. Sometimes called loose associations, a thinking process characterized by speech in which ideas shift from one unrelated subject to another. The individual is unaware that the topics are unconnected.

ataxia. Muscular incoordination.

attachment theory. The hypothesis that individuals who maintain close relationships with others into old age are more likely to remain independent and less likely to be institutionalized than those who do not.

attitude. A frame of reference around which an individual organizes knowledge about his or her world. It includes an emotional element and can have a positive or negative connotation.

autism. A focus inward on a fantasy world and distorting or excluding the external environment; common in schizophrenia.

autistic disorder. The withdrawal of an infant or child into the self and into a fantasy world of his or her own creation. There is

Continued on the following page

marked impairment in interpersonal functioning and communication and in imaginative play. Activities and interests are restricted and may be considered somewhat bizarre.

autocratic. A leadership style in which the leader makes all decisions for the group. Productivity is very high with this type of leadership, but morale is often low because of the lack of member input and creativity.

autoimmunity. A condition in which the body produces a disordered immunological response against itself. In this situation, the body fails to differentiate between what is normal and what is a foreign substance. When this occurs, the body produces antibodies against normal parts of the body to such an extent as to cause tissue injury.

autonomy. Independence; self-governance. An ethical principle that emphasizes the status of persons as autonomous moral agents whose right to determine their destinies should always be respected.

aversive stimulus. A stimulus that follows a behavioral response and decreases the probability that the behavior will recur; also called punishment.

axon. The cellular process of a neuron that carries impulses away from the cell body.

azidothymidine (AZT). An antiviral agent used to treat individuals with AIDS.

B

battering. A pattern of repeated physical assault, usually of a woman by her spouse or intimate partner. Men are also battered, although this occurs much less frequently.

battery. The unconsented touching of another person. Nurses may be charged with battery should they participate in the treatment of a client without his or her consent and outside of an emergency.

behavior modification. A treatment modality aimed at changing undesirable behaviors, using a system of reinforcement to bring about the modifications desired.

belief. A belief is an idea that one holds to be true. It can be rational, irrational, taken on faith, or a stereotypical idea.

beneficence. An ethical principle that refers to one's duty to benefit or promote the good of others.

bereavement overload. An accumulation of grief that occurs when an individual experiences many losses over a short period and is unable to resolve one before another is experienced. This phenomenon is common among the elderly.

binge and purge. A syndrome associated with eating disorders, especially bulimia, in which an individual consumes thousands of calories of food at one sitting, and then purges using laxatives or self-induced vomiting.

bioethics. The term used with ethical principles that refer to concepts within the scope of medicine, nursing, and allied health.

biofeedback. The use of instrumentation to become aware of processes in the body that usually go unnoticed and to bring them under voluntary control (e.g., the blood pressure or pulse); used as a method of stress reduction.

bipolar disorder. Characterized by mood swings from profound depression to extreme euphoria (mania), with intervening periods of normalcy. Psychotic symptoms may or may not be present.

body image. One's perception of his or her own body. It may also be how one believes others perceive his or her body. (See also physical self.)

borderline personality disorder. A disorder characterized by a pattern of intense and chaotic relationships, with affective instability, fluctuating and extreme attitudes regarding other people, impulsivity, direct and indirect self-destructive behavior, and lack of a clear or certain sense of identity, life plan, or values.

boundaries. The level of participation and interaction between individuals and between subsystems. Boundaries denote physical and psychological space individuals identify as their own. They are sometimes referred to as limits. Boundaries are appropriate when they permit appropriate contact with others and prevent excessive interference. Boundaries may be clearly defined (healthy) or rigid or diffuse (unhealthy).

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C

- cachexia.** A state of ill health, malnutrition, and wasting; extreme emaciation.
- cannabis.** The dried flowering tops of the hemp plant. It produces euphoric effects when ingested or smoked and is commonly used in the form of marijuana or hashish.
- carcinogen.** Any substance or agent that produces or increases the risk of developing cancer in humans or lower animals.
- case management.** A healthcare delivery process, the goals of which are to provide quality healthcare, decrease fragmentation, enhance the client's quality of life, and contain costs. A case manager coordinates the client's care from admission to discharge and sometimes following discharge. Critical pathways of care are the tools used for the provision of care in a case management system.
- case manager.** The individual responsible for negotiating with multiple healthcare providers to obtain a variety of services for a client.
- catatonia.** A type of schizophrenia that is typified by stupor or excitement; stupor characterized by extreme psychomotor retardation, mutism, negativism, and posturing, excitement by psychomotor agitation, in which the movements are frenzied and purposeless.
- catharsis.** One curative factor of group therapy (identified by Yalom), in which members in a group can express both positive and negative feelings in a nonthreatening atmosphere.
- cell body.** The part of the neuron that contains the nucleus and is essential for the continued life of the neuron.
- chi.** In Chinese medicine, the healing energy that flows through pathways in the body called meridians.
- chiropractic medicine.** A system of alternative medicine based on the premise that the relationship between structure and function in the human body is a significant health factor and that such relationships between the spinal column and the nervous system are important because the normal transmission and expression of nerve energy are essential to the restoration and maintenance of health.

- child sexual abuse.** Any sexual act, such as indecent exposure or improper touching to penetration (sexual intercourse) that is carried out with a child.
- Christian ethics.** The ethical philosophy that states one should treat others as moral equals, and recognize the equality of other persons by permitting them to act as we do when they occupy a position similar to ours; sometimes referred to as "the ethic of the golden rule."
- circadian rhythm.** A 24-hour biological rhythm controlled by a "pacemaker" in the brain that sends messages to other systems in the body. Circadian rhythm influences various regulatory functions, including the sleep-wake cycle, body temperature regulation, patterns of activity such as eating and drinking, and hormonal and neurotransmitter secretion.
- circumstantiality.** In speaking, the delay of an individual to reach the point of a communication, owing to unnecessary and tedious details.
- civil law.** Law that protects the private and property rights of individuals and businesses.
- clang associations.** A pattern of speech in which the choice of words is governed by sounds. Clang associations often take the form of rhyming.
- classical conditioning.** A type of learning that occurs when an unconditioned stimulus (UCS) that produces an unconditioned response (UCR) is paired with a conditioned stimulus (CS), until the CS alone produces the same response, which is then called a conditioned response (CR). Pavlov's example: food (i.e., UCS) causes salivation (i.e., UCR); ringing bell (i.e., CS) with food (i.e., UCS) causes salivation (i.e., UCR), ringing bell alone (i.e., CS) causes salivation (i.e., CR).
- codependency.** An exaggerated dependent pattern of learned behaviors, beliefs, and feelings that make life painful. It is a dependence on people and things outside the self, along with neglect of the self to the point of having little self-identity.
- cognition.** Mental operations that relate to logic, awareness, intellect, memory, language, and reasoning powers.

Continued on the following page

cognitive development. A series of stages described by Piaget through which individuals progress, demonstrating at each successive stage a higher level of logical organization than at each previous stage.

cognitive maturity. The capability to perform all mental operations needed for adulthood.

cognitive therapy. A type of therapy in which the individual is taught to control thought distortions that are considered to be a factor in the development and maintenance of emotional disorders.

common law. Laws that are derived from decisions made in previous cases.

community. A group of people living close to and depending to some extent on each other.

compensation. Covering up a real or perceived weakness by emphasizing a trait one considers more desirable.

complementary medicine. Practices that differ from usual traditional (allopathic) medicine, but may in fact supplement it in a positive way.

compounded rape reaction. Symptoms that are in addition to the typical rape response of physical complaints, rage, humiliation, fear, and sleep disturbances. They include depression and suicide, substance abuse, and even psychotic behaviors.

concrete thinking. Thought processes that are focused on specifics rather than on generalities and immediate issues rather than eventual outcomes. Individuals who are experiencing concrete thinking are unable to comprehend abstract terminology.

confidentiality. The right of an individual to the assurance that his or her case will not be discussed outside the boundaries of the healthcare team.

contextual stimulus. Conditions present in the environment that support a focal stimulus and influence a threat to self-esteem.

contingency contracting. A written contract between individuals used to modify behavior. Benefits and consequences for fulfilling the terms of the contract are delineated.

controlled response pattern. The response to rape in which feelings are masked or hidden, and a calm, composed, or subdued affect is seen.

counselor. One who listens as the client reviews feelings related to difficulties he or she is experiencing in any aspect of life; one of the nursing roles identified by H. Peplau.

covert sensitization. An aversion technique used to modify behavior that relies on the individual's imagination to produce unpleasant symptoms. When the individual is about to succumb to undesirable behavior, he or she visualizes something that is offensive or even nauseating in an effort to block the behavior.

criminal law. Law that provides protection from conduct deemed injurious to the public welfare. It provides for punishment of those found to have engaged in such conduct.

crisis. Psychological disequilibrium in a person who confronts a hazardous circumstance that constitutes an important problem, which for the time he or she can neither escape nor solve with usual problem-solving resources.

crisis intervention. An emergency type of assistance in which the intervener becomes a part of the individual's life situation. The focus is to provide guidance and support to help mobilize the resources needed to resolve the crisis and restore or generate an improvement in previous level of functioning. Usually lasts no longer than 6 to 8 weeks.

critical pathways of care. An abbreviated plan of care that provides outcome-based guidelines for goal achievement within a designated length of time.

culture. A particular society's entire way of living, encompassing shared patterns of belief, feeling, and knowledge that guide people's conduct and are passed down from generation to generation.

curandera. A female folk healer in the Latino culture.

curandero. A male folk healer in the Latino culture.

cycle of battering. Three phases of predictable behaviors that are repeated over time in a relationship between a batterer and a victim: tension-building phase; the acute battering incident; and the calm, loving, respite (honeymoon) phase.

cyclothymia. A chronic mood disturbance involving numerous episodes of hypomania and depressed mood, of insufficient severity or duration to meet the criteria for bipolar disorder.

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D

date rape. A situation in which the rapist is known to the victim. This may occur during dating or with acquaintances or schoolmates.

defamation of character. An individual may be liable for defamation of character by sharing with others information about a person that is detrimental to his or her reputation.

deinstitutionalization. The removal of mentally ill individuals from institutions and the subsequent plan to provide care for these individuals in the community setting.

delayed grief. Also called *inhibited grief*. The absence of evidence of grief when it ordinarily would be expected.

delirium. A state of mental confusion and excitement characterized by disorientation for time and place, often with hallucinations, incoherent speech, and a continual state of aimless physical activity.

delusions. False personal beliefs, not consistent with a person's intelligence or cultural background. The individual continues to have the belief in spite of obvious proof that it is false and/or irrational.

dementia. Global impairment of cognitive functioning that is progressive and interferes with social and occupational abilities.

dendrites. The cellular processes of a neuron that carries impulses toward the cell body.

denial. Refusal to acknowledge the existence of a real situation and/or the feelings associated with it.

density. The number of people in a given environmental space, influencing interpersonal interaction.

depersonalization. An alteration in the perception or experience of the self so that the feeling of one's own reality is temporarily lost.

derealization. An alteration in the perception or experience of the external world so that it seems strange or unreal.

detoxification. The process of withdrawal from a substance to which one has become dependent.

diagnostically related groups (DRGs). A system used to determine prospective payment rates for reimbursement of hospital care based on the client's diagnosis.

Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision (DSM-IV-TR). Standard nomenclature of emotional illness published by the American Psychiatric Association (APA) and used by all healthcare practitioners. It classifies mental illness and presents guidelines and diagnostic criteria for various mental disorders.

directed association. A technique used to help clients bring into consciousness events that have been repressed. Specific thoughts are guided and directed by the psychoanalyst.

discriminative stimulus. A stimulus that precedes a behavioral response and predicts that a particular reinforcement will occur. Individuals learn to discriminate between various stimuli that will produce the responses they desire.

disengagement. In family theory, disengagement refers to extreme separateness among family members. It is promoted by rigid boundaries or lack of communication among family members.

disengagement theory. The hypothesis that there is a process of mutual withdrawal of aging persons and society from each other that is correlated with successful aging. This theory has been challenged by many investigators.

displacement. Feelings are transferred from one target to another that is considered less threatening or neutral.

disulfiram. A drug that is administered to individuals who abuse alcohol as a deterrent to drinking. Ingestion of alcohol when disulfiram is in the body results in a syndrome of symptoms that can produce a great deal of discomfort, and can even result in death if the blood alcohol level is high.

double-bind communication. Communication described as contradictory that places an individual in a "double bind." It occurs when a statement is made and succeeded by a contradictory statement or when a statement is made accompanied by nonverbal expression that is inconsistent with the verbal communication.

dyspareunia. Pain during sexual intercourse.

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- dysthymia.** A depressive neurosis. The symptoms are similar to, if somewhat milder than, those ascribed to major depression. There is no loss of contact with reality.
- dystonia.** Involuntary muscular movements (spasms) of the face, arms, legs, and neck; may occur as an extrapyramidal side effect of some antipsychotic medications.

E

- echolalia.** The parrot-like repetition, by an individual with loose ego boundaries, of the words spoken by another.
- echopraxia.** An individual with loose ego boundaries attempting to identify with another person by imitating movements that the other person makes.
- ego.** One of the three elements of the personality identified by Freud as the rational self or “reality principle.” The ego seeks to maintain harmony between the external world, the id, and the superego.
- ego defense mechanisms.** Strategies employed by the ego for protection in the face of threat to biological or psychological integrity. (See individual defense mechanisms.)
- egoistic suicide.** The response of an individual who feels separate and apart from the mainstream of society.
- electroconvulsive therapy (ECT).** A type of somatic treatment in which electric current is applied to the brain through electrodes placed on the temples. A grand mal seizure produces the desired effect. This is used with severely depressed patients refractory to antidepressant medications.
- emaciated.** The state of being excessively thin or physically wasted.
- emotional injury of a child.** A pattern of behavior on the part of the parent or caretaker that results in serious impairment of the child’s social, emotional, or intellectual functioning.
- emotional neglect of a child.** A chronic failure by the parent or caretaker to provide the child with the hope, love, and support necessary for the development of a sound, healthy personality.
- empathy.** The ability to see beyond outward behavior and sense accurately another’s inner experiencing. With empathy, one can ac-

curately perceive and understand the meaning and relevance in the thoughts and feelings of another.

- enmeshment.** Exaggerated connectedness among family members. It occurs in response to diffuse boundaries in which there is overinvestment, overinvolvement, and lack of differentiation between individuals or subsystems.
- esophageal varices.** Veins in the esophagus become distended because of excessive pressure from defective blood flow through a cirrhotic liver.
- essential hypertension.** Persistent elevation of blood pressure for which there is no apparent cause or associated underlying disease.
- ethical dilemma.** A situation that arises when, based on moral considerations, an appeal can be made for taking each of two opposing courses of action.
- ethical egoism.** An ethical theory espousing that what is “right” and “good” is what is best for the individual making the decision.
- ethics.** A branch of philosophy dealing with values related to human conduct, to the rightness and wrongness of certain actions, and to the goodness and badness of the motives and ends of such actions.
- ethnicity.** The concept of people identifying with each other because of a shared heritage.
- exhibitionism.** A paraphilic disorder characterized by a recurrent urge to expose one’s genitals to a stranger.
- expressed response pattern.** Pattern of behavior in which the victim of rape expresses feelings of fear, anger, and anxiety through such behavior as crying, sobbing, smiling, restlessness, and tenseness; in contrast to the rape victim who withholds feelings in the controlled response pattern.
- extinction.** The gradual decrease in frequency or disappearance of a response when the positive reinforcement is withheld.
- extrapyramidal symptoms (EPS).** A variety of responses that originate outside the pyramidal tracts and in the basal ganglion of the brain. Symptoms may include tremors, chorea, dystonia, akinesia, akathisia, and others. May occur as a side effect of some antipsychotic medications.

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F

false imprisonment. The deliberate and unauthorized confinement of a person within fixed limits by the use of threat or force. A nurse may be charged with false imprisonment by placing a patient in restraints against his or her will in a non-emergency situation.

family structure. A family system in which the structure is founded on a set of invisible principles that influence the interaction among family members. These principles are established over time and become the “laws” that govern the conduct of various family members.

family system. A system in which the parts of the whole may be the marital dyad, parent-child dyad, or sibling groups. Each of these subsystems is further divided into subsystems of individuals.

family therapy. A type of therapy in which the focus is on relationships within the family. The family is viewed as a system in which the members are interdependent, and a change in one creates change in all.

fetishism. A paraphilic disorder characterized by recurrent sexual urges and sexually arousing fantasies involving the use of non-living objects.

fight or flight. A syndrome of physical symptoms that result from an individual's real or perceived perception that harm or danger is imminent.

flexible boundary. A personal boundary is flexible when, because of unusual circumstances, individuals can alter limits that they have set for themselves. Flexible boundaries are healthy boundaries.

flooding. Sometimes called implosive therapy, this technique is used to desensitize individuals to phobic stimuli. The individual is “flooded” with a continuous presentation (usually through mental imagery) of the phobic stimulus until it no longer elicits anxiety.

focus charting.[®] A type of documentation that follows a data, action, and response (DAR) format. The main perspective is a

client “focus,” which can be a nursing diagnosis, a client's concern, change in status, or significant event in the client's therapy. The focus cannot be a medical diagnosis.

folk medicine. A system of healthcare within various cultures that is provided by a local practitioner, not professionally trained, but who uses techniques specific to that culture in the art of healing.

free association. A technique used to help individuals bring to consciousness material that has been repressed. The individual is encouraged to verbalize whatever comes into his or her mind, drifting naturally from one thought to another.

frotteurism. A paraphilic disorder characterized by the recurrent preoccupation with intense sexual urges or fantasies involving touching or rubbing against a nonconsenting person.

fugue. A sudden unexpected travel away from home or customary work locale with the assumption of a new identity and an inability to recall one's previous identity; usually occurring in response to severe psychosocial stress.

G

gains. The reinforcements an individual receives for somaticizing.

gains, primary. The receipt of positive reinforcement for somaticizing by being able to avoid difficult situations because of physical complaint.

gains, secondary. The receipt of positive reinforcement for somaticizing through added attention, sympathy, and nurturing.

gains, tertiary. The receipt of positive reinforcement for somaticizing by causing the focus of the family to switch to him or her and away from conflict that may be occurring within the family.

Gamblers Anonymous (GA). An organization of inspirational group therapy, modeled after Alcoholics Anonymous (AA), for individuals who desire to, but cannot, stop gambling.

gender identity disorder. A sense of discomfort associated with an incongruence between biologically assigned gender and subjectively experienced gender.

generalized anxiety disorder. A disorder characterized by chronic (at least 6 months), unrealistic, and excessive anxiety and worry.

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genogram. A graphic representation of a family system. It may cover several generations. Emphasis is on family roles and emotional relatedness among members. Genograms facilitate recognition of areas requiring change.

genotype. The total set of genes present in an individual at the time of conception, and coded in the DNA.

genuineness. The ability to be open, honest, and “real” in interactions with others; the awareness of what one is experiencing internally and the ability to project the quality of this inner experiencing in a relationship.

geriatrics. The branch of clinical medicine specializing in the care of the elderly and concerned with the problems of aging.

gerontology. The study of normal aging.

geropsychiatry. The branch of clinical medicine specializing in psychopathology of the elderly.

gonorrhea. A sexually transmitted disease caused by the bacterium *N. gonorrhoeae* and resulting in inflammation of the genital mucosa. Treatment is with antibiotics, particularly penicillin. Serious complications occur if the disease is left untreated.

“**granny-bashing.**” Media-generated term for abuse of the elderly.

“**granny-dumping.**” Media-generated term for abandoning elderly individuals at emergency departments, nursing homes, or other facilities—literally, leaving them in the hands of others when the strain of caregiving becomes intolerable.

grief. A subjective state of emotional, physical, and social responses to the real or perceived loss of a valued entity. Change and failure can also be perceived as losses. The grief response consists of a set of relatively predictable behaviors that describe the subjective state that accompanies mourning.

grief, exaggerated. A reaction in which all of the symptoms associated with normal grieving are exaggerated out of proportion. Pathological depression is a type of exaggerated grief.

grief, inhibited. The absence of evidence of grief when it ordinarily would be expected.

grief, prolonged. Grief characterized by lack of resumption of normal activities of daily living within 4 to 8 weeks of a loss.

group therapy. A therapy group, founded in a specific theoretical framework, led by a person with an advanced degree in psychol-

ogy, social work, nursing, or medicine. The goal is to encourage improvement in interpersonal functioning.

gynecomastia. Enlargement of the breasts in men; may be a side effect of some antipsychotic medications.

H

hallucinations. False sensory perceptions not associated with real external stimuli. Hallucinations may involve any of the five senses.

hepatic encephalopathy. A brain disorder resulting from the inability of the cirrhotic liver to convert ammonia to urea for excretion. The continued rise in serum ammonia results in progressively impaired mental functioning, apathy, euphoria or depression, sleep disturbances, increasing confusion, and progression to coma and eventual death.

histrionic personality disorder. Conscious or unconscious overly dramatic behavior used for drawing attention to oneself.

HIV wasting syndrome. An absence of concurrent illness other than HIV infection, and presence of the following: fever, weakness, weight loss, and chronic diarrhea.

homosexuality. A sexual preference for persons of the same gender.

hospice. A program that provides palliative and supportive care to meet the special needs arising out of the physical, psychosocial, spiritual, social, and economic stresses that are experienced during the final stages of illness and during bereavement.

human immunodeficiency virus (HIV). The virus that is the etiological agent that produces the immunosuppression resulting in AIDS.

humors. The four body fluids described by Hippocrates: blood, black bile, yellow bile, and phlegm. Hippocrates associated insanity and mental illness with these four fluids.

hypersomnia. Excessive sleepiness or seeking excessive amounts of sleep.

hypertensive crisis. A potentially life-threatening syndrome that results when an individual taking MAOIs eats a product high in

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tyramine. Symptoms include severe occipital headache, palpitations, nausea and vomiting, nuchal rigidity, fever, sweating, marked increase in blood pressure, chest pain, and coma. Foods with tyramine include aged cheeses or other aged, overripe, and fermented foods; broad beans; pickled herring; beef or chicken liver; preserved meats; beer and wine; yeast products; chocolate; caffeinated drinks; canned figs; sour cream; yogurt; soy sauce; and some over-the-counter cold medications and diet pills.

hypnosis. A treatment for disorders brought on by repressed anxiety. The individual is directed into a state of subconsciousness and assisted, through suggestions, to recall certain events that he or she cannot recall when conscious.

hypochondriasis. The unrealistic preoccupation with fear of having a serious illness.

hypomania. A mild form of mania. Symptoms are excessive hyperactivity, but not severe enough to cause marked impairment in social or occupational functioning or to require hospitalization.

hysteria. A polysymptomatic disorder characterized by recurrent, multiple somatic complaints often described dramatically.

I

id. One of the three components of the personality identified by Freud as the “pleasure principle.” The id is the locus of instinctual drives; is present at birth; and compels the infant to satisfy needs and seek immediate gratification.

identification. An attempt to increase self-worth by acquiring certain attributes and characteristics of an individual one admires.

illusion. A misperception of a real external stimulus.

implosion therapy. See flooding.

incest. Sexual exploitation of a child under 18 years of age by a relative or non-relative who holds a position of trust in the family.

informed consent. Permission granted to a physician by a client to perform a therapeutic procedure, before which information about the procedure has been presented to the client with adequate time given for consideration about the pros and cons.

insomnia. Difficulty initiating or maintaining sleep.

insulin coma therapy. The induction of a hypoglycemic coma aimed at alleviating psychotic symptoms; a dangerous procedure, questionably effective, no longer used in psychiatry.

integration. The process used with individuals with dissociative identity disorder in an effort to bring all the personalities together into one; usually achieved through hypnosis.

intellectualization. An attempt to avoid expressing actual emotions associated with a stressful situation by using the intellectual processes of logic, reasoning, and analysis.

interdisciplinary care. A concept of providing care for a client in which members of various disciplines work together with common goals and shared responsibilities for meeting those goals.

intimate distance. The closest distance individuals will allow between themselves and others. In the United States, this distance is 0 to 18 inches.

introjection. The beliefs and values of another individual are internalized and symbolically become a part of the self to the extent that the feeling of separateness or distinctness is lost.

isolation. The separation of a thought or a memory from the feeling tone or emotions associated with it (sometimes called emotional isolation).

J

justice. An ethical principle reflecting that all individuals should be treated equally and fairly.

K

Kantianism. The ethical principle espousing that decisions should be made and actions taken out of a sense of duty.

Kaposi's sarcoma. Malignant areas of cell proliferation initially in the skin and eventually in other body sites; thought to be related to the immunocompromised state that accompanies AIDS.

kleptomania. A recurrent failure to resist impulses to steal objects not needed for personal use or monetary value.

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Korsakoff's psychosis. A syndrome of confusion, loss of recent memory, and confabulation in alcoholics, caused by a deficiency of thiamine. It often occurs together with Wernicke's encephalopathy and may be termed Wernicke-Korsakoff's syndrome.

L

la belle indifférence. A symptom of conversion disorder in which there is a relative lack of concern that is out of keeping with the severity of the impairment.

laissez-faire. A leadership type in which the leader lets group members do as they please. There is no direction from the leader. Member productivity and morale may be low, owing to frustration from lack of direction.

lesbian. A female homosexual.

libel. An action with which an individual may be charged for sharing with another individual, in writing, information that is detrimental to someone's reputation.

libido. Freud's term for the psychic energy used to fulfill basic physiological needs or instinctual drives such as hunger, thirst, and sexuality.

limbic system. The part of the brain that is sometimes called the "emotional brain." It is associated with feelings of fear and anxiety; anger and aggression; love, joy, and hope; and with sexuality and social behavior.

long-term memory. Memory for remote events, or those that occurred many years ago. The type of memory that is preserved in the elderly individual.

loss. The experience of separation from something of personal importance.

luto. The word for mourning in the Mexican-American culture that is symbolized by wearing black, black and white, or dark clothing and by subdued behavior.

M

magical thinking. A primitive form of thinking in which an individual believes that thinking about a possible occurrence can make it happen.

maladaptation. A failure of the body to return to homeostasis following a physiological and/or psychological response to stress, disrupting the individual's integrity.

malpractice. The failure of one rendering professional services to exercise that amount of skill and learning commonly applied, under all the circumstances, in the community by the average, prudent, reputable member of the profession with the result of injury, loss, or damage to the recipient of those services or to those entitled to rely upon them.

managed care. A concept purposefully designed to control the balance between cost and quality of care. Examples of managed care are health maintenance organizations (HMOs) and preferred provider organizations (PPOs). The amount and type of health care that the individual receives is determined by the organization providing the managed care.

mania. A type of bipolar disorder in which the predominant mood is elevated, expansive, or irritable. Motor activity is frenzied and excessive. Psychotic features may or may not be present.

mania, delirious. A grave form of mania characterized by severe clouding of consciousness and representing an intensification of the symptoms associated with mania. The symptoms of delirious mania have become relatively rare since the availability of antipsychotic medications.

marital rape. Sexual violence directed at a marital partner against that person's will.

marital schism. A state of severe, chronic disequilibrium and discord within the marital dyad, with recurrent threats of separation.

marital skew. A marital relationship in which there is lack of equal partnership. One partner dominates the relationship and the other partner.

masochism. Sexual stimulation derived from being humiliated, beaten, bound, or otherwise made to suffer.

Medicaid. A system established by the federal government to provide medical care benefits for indigent Americans. Medicaid funds are matched by the states, and coverage varies significantly from state to state.

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Medicare. A system established by the federal government to provide medical care benefits for elderly Americans.

meditation. A method of relaxation in which an individual sits in a quiet place and focuses total concentration on an object, word, or thought.

melancholia. A severe form of major depressive episode. Symptoms are exaggerated, and interest or pleasure in virtually all activities is lost.

menopause. The period marking the permanent cessation of menstrual activity; usually occurs at approximately 48 to 51 years of age.

mental health. The successful adaptation to stressors from the internal or external environment, evidenced by thoughts, feelings, and behaviors that are age-appropriate and congruent with local and cultural norms.

mental illness. Maladaptive responses to stressors from the internal or external environment, evidenced by thoughts, feelings, and behaviors that are incongruent with the local and cultural norms, and interfere with the individual's social, occupational, and/or physical functioning.

mental imagery. A method of stress reduction that employs the imagination. The individual focuses imagination on a scenario that is particularly relaxing to him or her (e.g., a scene on a quiet seashore, a mountain atmosphere, or floating through the air on a fluffy white cloud).

meridians. In Chinese medicine, pathways along the body in which the healing energy (chi) flows, and which are links between acupoints.

migraine personality. Personality characteristics that have been attributed to the migraine-prone person. The characteristics include perfectionistic, overly conscientious, somewhat inflexible, neat and tidy, compulsive, hard worker, intelligent, exacting, and places a very high premium on success, setting high (sometimes unrealistic) expectations on self and others.

milieu. French for "middle;" the English translation connotes "surroundings, or environment."

milieu therapy. Also called therapeutic community, or therapeutic environment, this type of therapy consists of a scientific struc-

turing of the environment in order to effect behavioral changes and to improve the individual's psychological health and functioning.

mobile outreach units. Programs in which volunteers and paid professionals drive or walk around and seek out homeless individuals who need assistance with physical or psychological care.

modeling. Learning new behaviors by imitating the behaviors of others.

mood. An individual's sustained emotional tone, which significantly influences behavior, personality, and perception.

moral behavior. Conduct that results from serious critical thinking about how individuals ought to treat others; reflects respect for human life, freedom, justice, or confidentiality.

moral-ethical self. That aspect of the personal identity that functions as observer, standard setter, dreamer, comparer, and most of all evaluator of who the individual says he or she is. This component of the personal identity makes judgments that influence an individual's self-evaluation.

mourning. The psychological process (or stages) through which the individual passes on the way to successful adaptation to the loss of a valued object.

multidisciplinary care. A concept of providing care for a client in which individual disciplines provide specific services for the client without formal arrangement for interaction between the disciplines.

N

narcissistic personality disorder. A disorder characterized by an exaggerated sense of self-worth. These individuals lack empathy and are hypersensitive to the evaluation of others.

narcolepsy. A disorder in which the characteristic manifestation is sleep attacks. The individual cannot prevent falling asleep, even in the middle of a sentence or performing a task.

natural law theory. The ethical theory that has as its moral precept to "do good and avoid evil" at all costs. Natural law ethics are grounded in a concern for the human good, which is based on man's ability to live according to the dictates of reason.

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negative reinforcement. Increasing the probability that a behavior will recur by removal of an undesirable reinforcing stimulus.

negativism. Strong resistance to suggestions or directions; exhibiting behaviors contrary to what is expected.

negligence. The failure to do something that a reasonable person, guided by those considerations, which ordinarily regulate human affairs, would do, or doing something that a prudent and reasonable person would not do.

neologism. New words that an individual invents that are meaningless to others but have symbolic meaning to the psychotic person.

neuroendocrinology. The study of hormones functioning within the neurological system.

neuroleptic. Antipsychotic medication used to prevent or control psychotic symptoms.

neuroleptic malignant syndrome (NMS). A rare but potentially fatal complication of treatment with neuroleptic drugs. Symptoms include severe muscle rigidity, high fever, tachycardia, fluctuations in blood pressure, diaphoresis, and rapid deterioration of mental status to stupor and coma.

neuron. A nerve cell; consists of a cell body, an axon, and dendrites.

neurotic disorder. A psychiatric disturbance, characterized by excessive anxiety and/or depression, disrupted bodily functions, unsatisfying interpersonal relationships, and behaviors that interfere with routine functioning. There is no loss of contact with reality.

neurotransmitter. A chemical that is stored in the axon terminals of the presynaptic neuron. An electrical impulse through the neuron stimulates the release of the neurotransmitter into the synaptic cleft, which in turn determines whether another electrical impulse is generated.

nonassertiveness. Individuals who are nonassertive (sometimes called passive) seek to please others at the expense of denying their own basic human rights.

nonmaleficence. The ethical principle that espouses abstaining from negative acts toward another, including acting carefully to avoid harm.

nursing diagnosis. A clinical judgment about individual, family, or

community responses to actual and potential health problems/life processes. Nursing diagnoses provide the basis for selection of nursing interventions to achieve outcomes for which the nurse is accountable.

nursing process. A dynamic, systematic process by which nurses assess, diagnose, identify outcomes, plan, implement, and evaluate nursing care. It has been called “nursing’s scientific methodology.” Nursing process gives order and consistency to nursing intervention.

O

obesity. The state of having a body mass index of 30 or above.

object constancy. The phase in the separation/individuation process when the child learns to relate to objects in an effective, constant manner. A sense of separateness is established, and the child is able to internalize a sustained image of the loved object or person when out of sight.

obsessive-compulsive disorder. Recurrent thoughts or ideas (obsessions) that an individual is unable to put out of his or her mind, and actions that an individual is unable to refrain from performing (compulsions). The obsessions and compulsions are severe enough to interfere with social and occupational functioning.

oculogyric crisis. An attack of involuntary deviation and fixation of the eyeballs, usually in the upward position. It may last for several minutes or hours and may occur as an extrapyramidal side effect of some antipsychotic medications.

operant conditioning. The learning of a particular action or type of behavior that is followed by reinforcement.

opportunistic infection. Infections with any organism, but especially fungi and bacteria, that occur due to the opportunity afforded by the altered physiological state of the host. Opportunistic infections have long been a defining characteristic of AIDS.

orgasm. A peaking of sexual pleasure, with release of sexual tension and rhythmic contraction of the perineal muscles and pelvic reproductive organs.

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osteoporosis. A reduction in the mass of bone per unit of volume, which interferes with the mechanical support function of bone. This process occurs because of demineralization of the bones, and is escalated in women about the time of menopause.

overt sensitization. A type of aversion therapy that produces unpleasant consequences for undesirable behavior. An example is the use of disulfiram therapy with alcoholics, which induces an undesirable physical response if the individual has consumed any alcohol.

P

palilalia. Repeating one's own sounds or words (a type of vocal tic associated with Tourette's disorder).

panic disorder. A disorder characterized by recurrent panic attacks, the onset of which are unpredictable, and manifested by intense apprehension, fear, or terror, often associated with feelings of impending doom, and accompanied by intense physical discomfort.

paradoxical intervention. In family therapy, "prescribing the symptom." The therapist requests that the family continue to engage in the behavior that they are trying to change. Tension is relieved, and the family is able to view more clearly the possible solutions to their problem.

paralanguage. The gestural component of the spoken word. It consists of pitch, tone, and loudness of spoken messages, the rate of speaking, expressively placed pauses, and emphasis assigned to certain words.

paranoia. A term that implies extreme suspiciousness. Paranoid schizophrenia is characterized by persecutory delusions and hallucinations of a threatening nature.

paraphilias. Repetitive behaviors or fantasies that involve non-human objects, real or simulated suffering or humiliation, or non-consenting partners.

parasomnia. Unusual or undesirable behaviors that occur during sleep (e.g., nightmares, sleep terrors, and sleepwalking).

passive-aggressive behavior. Behavior that defends an individual's own basic rights by expressing resistance to social and occupa-

tional demands. Sometimes called indirect aggression, this behavior takes the form of sly, devious, and undermining actions that express the opposite of what they are really feeling.

pathological gambling. A failure to resist impulses to gamble and gambling behavior that compromises, disrupts, or damages personal, family, or vocational pursuits.

pedophilia. Recurrent urges and sexually arousing fantasies involving sexual activity with a prepubescent child.

peer assistance programs. A program established by the American Nurses Association to assist impaired nurses. The individuals who administer these efforts are nurse members of the state associations, as well as nurses who are in recovery themselves.

perseveration. Persistent repetition of the same word or idea in response to different questions.

persistent generalized lymphadenopathy (PGL). A condition common in HIV-infected individuals in whom there are lymph nodes greater than 1 cm in diameter at two extrainguinal sites persisting for 3 months or longer, not attributed to other causes, and not associated with other substantial constitutional symptoms.

personal distance. The distance between individuals who are having interactions of a personal nature, such as a close conversation. In the U.S. culture, personal distance is approximately 18 to 40 inches.

personal identity. An individual's self-perception that defines one's functions as observer, standard setter, and self-evaluator. It strives to maintain a stable self-image and relates to what the individual strives to become.

personal self. See personal identity.

personality. Deeply ingrained patterns of behavior, which include the way one relates to, perceives, and thinks about the environment and oneself.

pharmacconvulsive therapy. The chemical induction of a convulsion used in the past for the reduction of psychotic symptoms, a type of therapy no longer used in psychiatry.

phencyclidine HCl. An anesthetic used in veterinary medicine; used illegally as a hallucinogen, referred to as PCP or angel dust.

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phenotype. Characteristics of physical manifestations that identify a particular genotype. Examples of phenotypes include eye color, height, blood type, language, and hairstyle. Phenotypes may be genetic or acquired.

phobia. An irrational fear.

phobia, social. The fear of being humiliated in social situations.

phobia, specific. A persistent fear of a specific object or situation, other than the fear of being unable to escape from a situation (agoraphobia) or the fear of being humiliated in social situations (social phobia).

physical neglect of a child. The failure on the part of the parent or caregiver to provide for a child's basic needs, such as food, clothing, shelter, medical/dental care, and supervision.

physical self. A personal appraisal by an individual of his or her physical being and includes physical attributes, functioning, sexuality, wellness-illness state, and appearance.

PIE charting. More specifically called "APIE," this method of documentation has an assessment, problem, intervention, and evaluation (APIE) format and is a problem-oriented system used to document nursing process.

***Pneumocystis carinii* pneumonia (PCP).** The most common life-threatening opportunistic infection seen in patients with AIDS. Symptoms include fever, exertional dyspnea, and nonproductive cough.

positive reinforcement. A reinforcement stimulus that increases the probability that the behavior will recur.

postpartum depression. Depression that occurs during the postpartum period. It may be related to hormonal changes, tryptophan metabolism, or alterations in membrane transport during the early postpartum period. Other predisposing factors may also be influential.

post-traumatic stress disorder (PTSD). A syndrome of symptoms that develop following a psychologically distressing event that is outside the range of usual human experience (e.g., rape, war). The individual is unable to put the experience out of his or her mind, has nightmares, flashbacks, and panic attacks.

posturing. The voluntary assumption of inappropriate or bizarre postures.

preassaultive tension state. Behaviors predictive of potential violence. They include excessive motor activity, tense posture, defiant affect, clenched teeth and fists, and other arguing, demanding, and threatening behaviors.

precipitating event. A stimulus arising from the internal or external environment that is perceived by an individual as taxing or exceeding his or her resources and endangering his or her well-being.

predisposing factors. A variety of elements that influence how an individual perceives and responds to a stressful event. Types of predisposing factors include genetic influences, past experiences, and existing conditions.

Premack principle. This principle states that a frequently occurring response (R1) can serve as a positive reinforcement for a response (R2) that occurs less frequently. For example, a girl may talk to friends on the phone (R2) only if she does her homework (R1).

premature ejaculation. Ejaculation that occurs with minimal sexual stimulation or before, upon, or shortly after penetration and before the person wishes it.

premenstrual dysphoric disorder. A disorder that is characterized by depressed mood, anxiety, mood swings, and decreased interest in activities during the week before menses and subsiding shortly after the onset of menstruation (*DSM-IV*, APA, 1994).

presenile. Pertaining to premature old age as judged by mental or physical condition. In presenile onset dementia, initial symptoms appear at age 65 or younger.

priapism. Prolonged painful penile erection; may occur as an adverse effect of some antidepressant medications, particularly trazodone.

primary prevention. Reduction of the incidence of mental disorders within the population by helping individuals to cope more effectively with stress and by trying to diminish stressors within the environment.

privileged communication. A doctrine, common to most states, that grants certain privileges under which they may refuse to reveal information about and communications with clients.

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problem-oriented recording (POR). A system of documentation that follows a subjective, objective, assessment, plan, implementation, and evaluation (SOAPIE) format. It is based on a list of identified patient problems to which each entry is directed.

progressive relaxation. A method of deep muscle relaxation in which each muscle group is alternately tensed and relaxed in a systematic order with the person concentrating on the contrast of sensations experienced from tensing and relaxing.

projection. Attributing to another person feelings or impulses unacceptable to oneself.

prospective payment. The program of cost containment within the healthcare profession directed at setting forth preestablished amounts that would be reimbursed for specific diagnoses.

pseudocyesis. A condition in which an individual has nearly all the signs and symptoms of pregnancy but is not pregnant; a conversion reaction.

pseudodementia. Symptoms of depression that mimic those of dementia.

pseudohostility. A family interaction pattern characterized by a state of chronic conflict and alienation among family members. This relationship pattern allows family members to deny underlying fears of tenderness and intimacy.

pseudomutuality. A family interaction pattern characterized by a facade of mutual regard with the purpose of denying underlying fears of separation and hostility.

psychodrama. A specialized type of group therapy that employs a dramatic approach in which patients become “actors” in life situation scenarios. The goal is to resolve interpersonal conflicts in a less-threatening atmosphere than the real-life situation would present.

psychodynamic nursing. Being able to understand one’s own behavior, to help others identify felt difficulties, and to apply principles of human relations to the problems that arise at all levels of experience.

psychoimmunology. The study of the implications of the immune system in psychiatry.

psychomotor retardation. Extreme slowdown of physical movements. Posture slumps; speech is slowed; digestion becomes sluggish. Common in severe depression.

psychophysiological. Referring to psychological factors contributing to the initiation or exacerbation of a physical condition. Either a demonstrable organic pathology or a known pathophysiological process is involved.

psychosomatic. See psychophysiological.

psychotic disorder. A serious psychiatric disorder in which there is a gross disorganization of the personality, a marked disturbance in reality testing, and the impairment of interpersonal functioning and relationship to the external world.

public distance. Appropriate interactional distance for speaking in public or yelling to someone some distance away. U.S. culture defines this distance as 12 feet or more.

pyromania. An inability to resist the impulse to set fires.

R

rape. The expression of power and dominance by means of sexual violence, most commonly by men over women, although men may also be rape victims. Rape is considered an act of aggression, not of passion.

rapport. The development between two people in a relationship of special feelings based on mutual acceptance, warmth, friendliness, common interest, a sense of trust, and a nonjudgmental attitude.

rationalization. Attempting to make excuses or formulate logical reasons to justify unacceptable feelings or behaviors.

reaction formation. Preventing unacceptable or undesirable thoughts or behaviors from being expressed by exaggerating opposite thoughts or types of behaviors.

receptor sites. Molecules that are situated on the cell membrane of the postsynaptic neuron that will accept only molecules with a complementary shape. These complementary molecules are specific to certain neurotransmitters that determine whether an electrical impulse will be excited or inhibited.

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reciprocal inhibition. Also called counterconditioning, this technique serves to decrease or eliminate a behavior by introducing a more adaptive behavior, but one that is incompatible with the unacceptable behavior (e.g., introducing relaxation techniques to an anxious person; relaxation and anxiety are incompatible behaviors).

reframing. Changing the conceptual or emotional setting or viewpoint in relation to which a situation is experienced and placing it in another frame that fits the “facts” of the same concrete situation equally well or even better, and thereby changing its entire meaning. The behavior may not actually change, but the consequences of the behavior may change because of a change in the meaning attached to the behavior.

regression. A retreat to an earlier level of development and the comfort measures associated with that level of functioning.

religiosity. Excessive demonstration of or obsession with religious ideas and behavior; common in schizophrenia.

reminiscence therapy. A process of life review by elderly individuals that promotes self-esteem and provides assistance in working through unresolved conflicts from the past.

repression. The involuntary blocking of unpleasant feelings and experiences from one’s awareness.

residual stimuli. Certain beliefs, attitudes, experiences, or traits that may contribute to an individual’s low self-esteem.

retarded ejaculation. Delayed or absent ejaculation, even though the man has a firm erection and has had more than adequate stimulation.

retrograde ejaculation. Ejaculation of the seminal fluid backwards into the bladder; may occur as a side effect of antipsychotic medications.

right. That which an individual is entitled (by ethical or moral standards) to have, or to do, or to receive from others within the limits of the law.

rigid boundaries. A person with rigid boundaries is “closed” and difficult to bond with. Such a person has a narrow perspective on life, sees things one way, and cannot discuss matters that lie outside his or her perspective.

ritualistic behavior. Purposeless activities that an individual performs repeatedly in an effort to decrease anxiety (e.g., hand washing); common in obsessive-compulsive disorder.

S

sadism. Recurrent urges and sexually arousing fantasies involving acts (real, not simulated) in which the psychological or physical suffering (including humiliation) of the victim is sexually exciting.

safe house or shelter. An establishment set up by many cities to provide protection for battered women and their children.

scapegoating. Occurs when hostility exists in a marriage dyad and an innocent third person (usually a child) becomes the target of blame for the problem.

schizoid personality disorder. A profound defect in the ability to form personal relationships or to respond to others in any meaningful, emotional way.

schizotypal personality disorder. A disorder characterized by odd and eccentric behavior, not decompensating to the level of schizophrenia.

secondary prevention. Healthcare that is directed at reduction of the prevalence of psychiatric illness by shortening the course (duration) of the illness. This is accomplished through early identification of problems and prompt initiation of treatment.

self-concept. The composite of beliefs and feelings that one holds about oneself at a given time, formed from perceptions of others’ reactions. The self-concept consists of the physical self, or body image; the personal self or identity; and the self-esteem.

self-consistency. The component of the personal identity that strives to maintain a stable self-image.

self-esteem. The amount of regard or respect that individuals have for themselves. It is a measure of worth that they place on their abilities and judgments.

self-expectancy. The component of the personal identity that is the individual’s perception of what he or she wants to be, to do, or to become.

self-ideal. See self-expectancy.

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senile. Pertaining to old age and the mental or physical weakness with which it is sometimes associated. In senile-onset dementia, the first symptoms appear after age 65.

sensate focus. A therapeutic technique used to treat individuals and couples with sexual dysfunction. The technique involves touching and being touched by another and focusing attention on the physical sensations encountered thereby. Clients gradually move through various levels of sensate focus that progress from nongenital touching to touching that includes the breasts and genitals; touching done in a simultaneous, mutual format rather than by one person at a time; and touching that extends to and allows eventually for the possibility of intercourse.

seroconversion. The development of evidence of antibody response to a disease or vaccine. The time at which antibodies may be detected in the blood.

sexual exploitation of a child. The inducement or coercion of a child into engaging in sexually explicit conduct for promoting any performance (e.g., child pornography).

shaman. The Native American “medicine man” or folk healer.

shaping. In learning, one shapes the behavior of another by giving reinforcements for increasingly closer approximations to the desired behavior.

shelters. A variety of places designed to help the homeless, ranging from converted warehouses that provide cots or floor space on which to sleep overnight to significant operations that provide a multitude of social and healthcare services.

“**ship of fools.**” The term given during the Middle Ages to sailing boats filled with severely mentally ill people that were sent out to sea with little guidance and in search of their lost rationality.

shiva. In the Jewish culture, following a death, the 7-day period beginning with the burial is called *shiva*.

short-term memory. The ability to remember events that occurred very recently. This ability deteriorates with age.

silent rape reaction. The response of a rape victim in which he or she tells no one about the assault.

slander. An action with which an individual may be charged for orally sharing information that is detrimental to a person’s reputation.

social distance. The distance considered acceptable in interactions with strangers or acquaintances, such as at a cocktail party or in a public building. U.S. culture defines this distance as 4 to 12 feet.

social skills training. Educational opportunities through role-play for the person with schizophrenia to learn appropriate social interaction skills and functional skills that are relevant to daily living.

somatization. A method of coping with psychosocial stress by developing physical symptoms.

splitting. A primitive ego defense mechanism in which the person is unable to integrate and accept both positive and negative feelings. In their view, people—including themselves—and life situations are all good or all bad. This trait is common in borderline personality disorder.

statutory law. A law that has been enacted by legislative bodies, such as a county or city council, state legislature, or the U.S. Congress.

statutory rape. Unlawful intercourse between a man over age 16 and a female under the age of consent. The man can be arrested for statutory rape even when the interaction has occurred between consenting individuals.

stereotyping. The process of classifying all individuals from the same culture or ethnic group as identical.

stimulus generalization. The process by which a conditioned response is elicited from all stimuli similar to the one from which the response was learned.

storefront clinic. Establishments that have been converted into clinics that serve the homeless population.

stress. A state of disequilibrium that occurs when there is a disharmony between demands occurring within an individual’s internal or external environment and his or her ability to cope with those demands.

stress management. Various methods used by individuals to reduce tension and other maladaptive responses to stress in their lives; includes relaxation exercises, physical exercise, music, mental imagery, or any other technique that is successful for a person.

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stressor. A demand from within an individual's internal or external environment that elicits a physiological and/or psychological response.

sublimation. The rechanneling of personally and/or socially unacceptable drives or impulses into activities that are tolerable and constructive.

subluxation. The term used in chiropractic medicine to describe vertebrae in the spinal column that have become displaced, possibly pressing on nerves and interfering with normal nerve transmission.

substance abuse. Use of psychoactive drugs that poses significant hazards to health and interferes with social, occupational, psychological, or physical functioning.

substance dependence. Physical dependence is identified by the inability to stop using a substance despite attempts to do so; a continual use of the substance despite adverse consequences; a developing tolerance; and the development of withdrawal symptoms upon cessation or decreased intake. Psychological dependence is said to exist when a substance is perceived by the user to be necessary to maintain an optimal state of personal well-being, interpersonal relations, or skill performance.

substitution therapy. The use of various medications to decrease the intensity of symptoms in an individual who is withdrawing from, or experiencing the effects of excessive use of, substances.

subsystems. The smaller units of which a system is composed. In family systems theory, the subsystems are composed of husband-wife, parent-child(ren), or sibling-sibling.

superego. One of the three elements of the personality identified by Freud that represents the conscience and the culturally determined restrictions that are placed on an individual.

suppression. The voluntary blocking from one's awareness of unpleasant feelings and experiences.

surrogate. One who serves as a substitute figure for another.

symbiotic relationship. A type of "psychic fusion" that occurs between two people; it is unhealthy in that severe anxiety is generated in one or both if separation is indicated. A symbiotic relationship is normal between infant and mother.

sympathy. The actual sharing of another's thoughts and behaviors. Differs from empathy, in that with empathy one experiences an objective understanding of what another is feeling, rather than actually sharing those feelings.

synapse. The junction between two neurons. The small space between the axon terminals of one neuron and the cell body or dendrites of another is called the synaptic cleft.

syphilis. A sexually transmitted disorder caused by the spirochete *Treponema pallidum* and resulting in a chancre on the skin or mucous membranes of the sexual organs. If left untreated, may go systemic. End-stage disease can have profound effects, such as blindness or insanity.

systematic desensitization. A treatment for phobias in which the individual is taught to relax and then asked to imagine various components of the phobic stimulus on a graded hierarchy, moving from that which produces the least fear to that which produces the most.

T

tangentiality. The inability to get to the point of a story. The speaker introduces many unrelated topics, until the original topic of discussion is lost.

tardive dyskinesia. Syndrome of symptoms characterized by bizarre facial and tongue movements, a stiff neck, and difficulty swallowing. It may occur as an adverse effect of long-term therapy with some antipsychotic medications.

technical expert. Peplau's term for one who understands various professional devices and possesses the clinical skills necessary to perform the interventions that are in the best interest of the client.

temperament. A set of inborn personality characteristics that influence an individual's manner of reacting to the environment, and ultimately influences his or her developmental progression.

territoriality. The innate tendency of individuals to own space. Individuals lay claim to areas around them as their own. This phenomenon can have an influence on interpersonal communication.

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tertiary prevention. Healthcare that is directed toward reduction of the residual effects associated with severe or chronic physical or mental illness.

therapeutic group. Differs from group therapy in that there is a lesser amount of theoretical foundation. Focus is on group relations, interactions between group members, and the consideration of a selected issue. Leaders of therapeutic groups do not require the extent of educational preparation required of group therapy leaders.

thought-stopping technique. A self-taught technique that an individual uses each time he or she wishes to eliminate intrusive or negative, unwanted thoughts from awareness.

time out. An aversive stimulus or punishment during which the individual is removed from the environment where the unacceptable behavior is being exhibited.

token economy. In behavior modification, a type of contracting in which the reinforcers for desired behaviors are presented in the form of tokens, which may then be exchanged for designated privileges.

tort. The violation of a civil law in which an individual has been wronged. In a tort action, one party asserts that wrongful conduct on the part of the other has caused harm, and compensation for harm suffered is sought.

transsexualism. A disorder of gender identity or gender dysphoria (unhappiness or dissatisfaction with one's gender) of the most extreme variety. The individual, despite having the anatomical characteristics of a given gender, has the self-perception of being of the opposite gender, and may seek to have gender changed through surgical intervention.

transvestic fetishism. Recurrent urges and sexually arousing fantasies involving dressing in the clothes of the opposite gender.

triangles. A three-person emotional configuration, which is considered the basic building block of the family system. When anxiety becomes too great between two family members, a third person is brought in to form a triangle. Triangles are dysfunctional in that they offer relief from anxiety through diversion rather than through resolution of the issue.

trichotillomania. The recurrent failure to resist impulses to pull out one's own hair.

type A personality. The personality characteristics attributed to individuals prone to coronary heart disease, including excessive competitive drive, chronic sense of time urgency, easy anger, aggressiveness, excessive ambition, and inability to enjoy leisure time.

type B personality. The personality characteristics attributed to individuals who are not prone to coronary heart disease; includes characteristics such as ability to perform even under pressure but without the competitive drive and constant sense of time urgency experienced by the type A personality. Type Bs can enjoy their leisure time without feeling guilty, and they are much less impulsive than type A individuals; that is, they think things through before making decisions.

type C personality. The personality characteristics attributed to the cancer-prone individual. Includes characteristics such as suppression of anger, calm, passive, puts the needs of others before their own, but holds resentment toward others for perceived "wrongs."

tyramine. An amino acid found in aged cheeses or other aged, overripe, and fermented foods; broad beans; pickled herring; beef or chicken liver; preserved meats; beer and wine; yeast products; chocolate; caffeinated drinks; canned figs; sour cream; yogurt; soy sauce; and some over-the-counter cold medications and diet pills. If foods high in tyramine content are consumed when an individual is taking MAOIs, a potentially life-threatening syndrome called hypertensive crisis can result.

U

unconditional positive regard. Carl Rogers' term for the respect and dignity of an individual regardless of his or her unacceptable behavior.

undoing. A mechanism used to symbolically negate or cancel out a previous action or experience that one finds intolerable.

universality. One curative factor of groups (identified by Yalom) in which individuals realize that they are not alone in a problem and

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in the thoughts and feelings they are experiencing. Anxiety is relieved by the support and understanding of others in the group who share similar experiences.

utilitarianism. The ethical theory that espouses “the greatest happiness for the greatest number.” Under this theory, action would be taken based on the results that will produce the most good (happiness) for the most people.

V

vaginismus. Involuntary constriction of the outer one-third of the vagina that prevents penile insertion and intercourse.

values. Personal beliefs about the truth, beauty, or worth of a thought, object, or behavior that influences an individual’s actions.

values clarification. A process of self-discovery by which people identify their personal values and their value rankings. This process increases awareness about why individuals behave in certain ways.

velorio. In the Mexican-American culture, following a death, large numbers of family and friends gather for a *velorio*, a festive watch over the body of the deceased person before burial.

voyeurism. Recurrent urges and sexually arousing fantasies involving the act of observing unsuspecting people, usually strangers, who are naked, in the process of disrobing, or engaging in sexual activity.

W

waxy flexibility. A condition by which the individual with schizophrenia passively yields all movable parts of the body to any efforts made at placing them in certain positions.

Wernicke’s encephalopathy. A brain disorder caused by thiamine deficiency and characterized by visual disturbances, ataxia, somnolence, stupor, and, without thiamine replacement, death.

word salad. A group of words that are put together in a random fashion without any logical connection.

Y

yin and yang. The fundamental concept of Asian health practices. Yin and yang are opposite forces of energy such as negative/positive, dark/light, cold/hot, hard/soft, and feminine/masculine. Food, medicines, and herbs are classified according to their yin and yang properties and are used to restore a balance, thereby restoring health.

yoga. A system of beliefs and practices, the ultimate goal of which is to unite the human soul with the universal spirit. In Western countries, yoga uses body postures, along with meditation and breathing exercises, to achieve a balanced, disciplined workout that releases muscle tension, tones the internal organs, and energizes the mind, body, and spirit, so that natural healing can occur.