

Antianxiety Drugs

Key Terms

<i>antianxiety drugs</i>	<i>psychotherapeutic drug</i>
<i>anxiety</i>	<i>drug</i>
<i>anxiolytics</i>	<i>psychotropic drug</i>
<i>benzodiazepine withdrawal</i>	

Chapter Objectives

On completion of this chapter, the student will:

- Name the three types of psychotherapeutic drugs.
- Discuss the uses, general drug actions, general adverse reactions, contraindications, precautions, and interactions associated with the administration of the antianxiety drugs.
- Discuss important preadministration and ongoing assessment activities the nurse should perform on the patient taking antianxiety drugs.
- List some nursing diagnoses particular to a patient taking antianxiety drugs.
- Discuss ways to promote an optimal response to therapy, how to manage common adverse reactions, and important points to keep in mind when educating patients about the use of antianxiety drugs.

By definition, a **psychotherapeutic drug** or a **psychotropic drug** is one that is used to treat disorders of the mind. The types of psychotherapeutic drugs used to treat mental illness include:

- Antianxiety drugs (tranquilizers);
- Antidepressant drugs; and
- Antipsychotic drugs.

The antianxiety drugs are discussed in this chapter. Antidepressant drugs and antipsychotic drugs are discussed in Chapters 31 and 32, respectively.

Anxiety is a feeling of apprehension, worry, or uneasiness that may or may not be based on reality. Anxiety may be seen in many types of situations, ranging from the anxiety that may accompany one's employment to the acute anxiety that may be seen during withdrawal from alcohol. Although a certain amount of anxiety is normal, excess anxiety interferes with day-to-day functioning and can cause undue stress in the lives of certain individuals. Drugs used to treat anxiety are called **antianxiety drugs**. Another term that refers to the antianxiety drugs is **anxiolytics**.

Antianxiety drugs include the benzodiazepines and the nonbenzodiazepines. Examples of the benzodiazepines

include alprazolam (Xanax), chlordiazepoxide (Librium), clorazepate (Tranxene), diazepam (Valium), lorazepam (Ativan), and oxazepam (Serax). All benzodiazepines are classified as Schedule IV in the Controlled Substances Act by the Drug Enforcement Agency (DEA) regulations (see Chap. 1). Nonbenzodiazepines useful as antianxiety drugs are buspirone (BuSpar), hydroxyzine (Atarax), and zolpidem (Ambien).

ACTIONS

The exact mechanism of action of the antianxiety drugs is not fully understood. However, it is believed that the benzodiazepines exert their tranquilizing effect by potentiating the effects of gamma-aminobutyric acid (GABA), an inhibitory transmitter, by binding to the specific benzodiazepine receptor sites. Nonbenzodiazepines exert their action in various ways. For example, buspirone is thought to act on the brain's dopamine and serotonin receptors. Hydroxyzine (Atarax) produces its antianxiety effect by acting on the hypothalamus and brain stem reticular formation.

USES

Antianxiety drugs are used in the management of anxiety disorders and short-term treatment of the symptoms of anxiety. Long-term use of these drugs is usually not recommended because prolonged therapy can result in drug dependence and serious withdrawal symptoms.

Some of these drugs may have additional uses as sedatives, muscle relaxants, anticonvulsants, and in the treatment of alcohol withdrawal. For example, clorazepate (Tranxene) and diazepam (Valium) are used as anticonvulsants (see Chap. 28). Additional uses of the individual antianxiety drugs are given in the Summary Drug Table: Antianxiety Drugs.

ADVERSE REACTIONS

Transient, mild drowsiness is commonly seen during the first few days of treatment with antianxiety drugs. Discontinuation of therapy because of the undesirable effects of the antianxiety agent is rare. Depending on the severity of anxiety or other circumstances, it may be desirable to allow some degree of sedation to occur during early therapy. Other adverse reactions include lethargy, apathy, fatigue, disorientation, anger, restlessness, constipation, diarrhea, dry mouth, nausea, visual disturbances, and incontinence. Some adverse reactions may be seen only when higher dosages are used.

SUMMARY DRUG TABLE ANTIANXIETY DRUGS

GENERIC NAME	TRADE NAME*	USES	ADVERSE REACTIONS	DOSAGE RANGES
<i>Benzodiazepines</i>				
alprazolam <i>al-prah-zoe-lam</i>	Xanax, <i>generic</i>	Anxiety disorders, short-term relief of anxiety	Transient mild drowsiness, sedation, nausea, depression, lethargy, apathy, confusion, constipation, diarrhea, dry mouth, incontinence, visual disturbances	0.25–0.5 mg PO TID, may be increased to 4 mg/d in divided doses
chlordiazepoxide <i>klor-dye-az-e-pox'-ide</i>	Librium, Libritabs, <i>generic</i>	Anxiety disorders, short-term relief of anxiety, acute alcohol withdrawal	Transient mild drowsiness, sedation, nausea, depression, lethargy, apathy, confusion, constipation, diarrhea, dry mouth, incontinence, visual disturbances	Anxiety: 5–25 mg PO 3 or 4 times/d, 50–100 mg IM, IV, then 25–50 mg IM, IV 3 or 4 times/d; acute alcohol withdrawal: up to 300 mg/d PO in divided doses, 50–100 mg IM, IV may repeat in 2–4h
clorazepate <i>klor-az'-eh-pate</i>	Tranxene SD, Tranxene T, <i>generic</i>	Anxiety disorders, short-term relief of anxiety, acute alcohol withdrawal	Transient mild drowsiness, sedation, nausea, depression, lethargy, apathy, confusion, constipation, diarrhea, dry mouth, incontinence, visual disturbances	7.5–60 mg PO in divided doses (average dose, 7.5 mg PO TID)
diazepam <i>dye-az'-e-pam</i>	Valium, <i>generic</i>	Anxiety disorders, short-term relief of anxiety, acute alcohol withdrawal, anticonvulsant, preoperative muscle relaxant	Transient mild drowsiness, sedation, nausea, depression, lethargy, apathy, confusion, constipation, diarrhea, dry mouth, incontinence, visual disturbances	Individualize dosage: 2–10 mg PO 2–4 times/d (15–30 mg/d), 2–10 mg IM or IV; may repeat in 3–4h if needed
halazepam <i>hal-az'-e-pam</i>	Paxipam	Anxiety disorders, short-term relief of anxiety	Transient mild drowsiness, sedation, nausea, depression, lethargy, apathy, confusion, constipation, diarrhea, dry mouth, incontinence, visual disturbances	20–40 mg PO 3–4 times/d; increase dosage according to need and tolerance

(continued)

SUMMARY DRUG TABLE ANTIANXIETY DRUGS (Continued)

GENERIC NAME	TRADE NAME*	USES	ADVERSE REACTIONS	DOSAGE RANGES
lorazepam <i>lor-a'-ze-pam</i>	Ativan, <i>generic</i>	Anxiety disorders, short-term relief of anxiety	Transient mild drowsiness, sedation, nausea, depression, lethargy, apathy, confusion, constipation, diarrhea, dry mouth, incontinence, visual disturbances	1–10 mg/d PO in divided doses; up to 4 mg IM, IV
oxazepam <i>ox-a'-ze-pam</i>	Serax, <i>generic</i>	Anxiety disorders, short-term relief of anxiety	Transient mild drowsiness, sedation, nausea, depression, lethargy, apathy, confusion, constipation, diarrhea, dry mouth, incontinence, visual disturbances	10–30 mg PO 3–4 times/d
Nonbenzodiazepine				
buspirone hydrochloride <i>byoo-spye-rone</i>	BuSpar	Anxiety disorders, short-term relief of anxiety	Dizziness, nausea, headache, nervousness, light-headedness, excitement	15–60 mg/d PO in divided doses
hydroxyzine <i>high-drox'-ih-zeen</i>	Atarax, Vistaril, <i>generic</i>	Symptomatic relief of anxiety and tension associated with psychoneurosis, pruritus, premedication sedative	Dry mouth, transitory drowsiness, involuntary motor activity	25–100 mg PO QID, 50–100 mg IM q4–6h PRN; premedication: 50–100 mg PO, 25–100 mg IM
meprobamate <i>me-pro-ba'-mate</i>	Equanil, Miltown, <i>generic</i>	Anxiety disorders, short-term relief of anxiety	Drowsiness, ataxia, nausea, dizziness, slurred speech, headache, weakness, vomiting, diarrhea	1.2–1.6 g/d PO in 3–4 doses
*The term <i>generic</i> indicates the drug is available in generic form.				

Dependence

Long-term use of anti-anxiety drugs may result in physical drug dependence (addiction) and tolerance (increasingly larger dosages required to obtain the desired effect). Withdrawal syndrome has occurred after as little as 4 to 6 weeks of therapy with a benzodiazepine. Withdrawal syndrome is more likely to occur when the benzodiazepine is taken for 3 months or more and is abruptly discontinued. The anti-anxiety drugs must never be discontinued abruptly because withdrawal symptoms, which can be extremely severe, may occur. The onset of withdrawal symptoms is usually within 1 to 10 days after discontinuing the drug, with the duration of withdrawal symptoms from 5 days to 1 month. Symptoms of withdrawal are identified in Display 30-1.

Nursing Alert

When discontinuing use of an anti-anxiety drug in patients who have used these drugs for prolonged periods, the physician will prescribe a decrease of dosage gradually for a period of 4 to 8 weeks to avoid the possibility of withdrawal symptoms.

Some anti-anxiety drugs, such as buspirone (BuSpar), seem to have less abuse potential and less effect on motor ability and cognition than that of the other anti-anxiety drugs.

DISPLAY 30-1 • Symptoms of Withdrawal

- Increased anxiety
- Fatigue
- Hypersomnia
- Metallic taste
- Concentration difficulties
- Fatigue
- Headache
- Tremors
- Numbness in the extremities
- Nausea
- Sweating
- Muscle tension and cramps
- Psychoses
- Hallucinations
- Memory impairment
- Convulsions (possible)

CONTRAINDICATIONS

The antianxiety drugs are contraindicated in patients with known hypersensitivity, psychoses, acute narrow-angle glaucoma, and shock. These drugs are also contraindicated in patients in a coma or with acute alcoholic intoxication with depression of vital signs.

The benzodiazepines are Pregnancy Category D drugs, and the drug metabolite freely crosses the placenta. Use of these drugs during pregnancy is contraindicated because of the risk of birth defects or neonatal withdrawal syndrome manifested by irritability tremors and respiratory problems. The benzodiazepines are contraindicated during labor because of reports of floppy infant syndrome manifested by sucking difficulties, lethargy, and hypotonia. Lactating women should also avoid the benzodiazepines because of the effect on the infant, who becomes lethargic and loses weight.

PRECAUTIONS

Antianxiety drugs are used cautiously in patients with impaired liver or kidney function and in elderly and debilitated patients. The metabolism of the benzodiazepines is slowed in the liver, increasing the risk of benzodiazepine toxicity. Lorazepam and oxazepam are the only benzodiazepines whose elimination is not significantly affected by liver metabolism. Two nonbenzodiazepines are Pregnancy Category B drugs (buspirone and zolpidem); hydroxyzine is a Pregnancy Category C drug. No adequate studies have been performed in pregnant women. These drugs should be used during pregnancy only when clearly needed and when the potential good would outweigh any harm to the fetus.

INTERACTIONS

Central nervous system (CNS) depressants such as alcohol, narcotic analgesics, tricyclic antidepressants (see Chap. 31), and the antipsychotic drugs (see Chap. 32), increase the sedative effects of the antianxiety drugs. Combination of any of these drugs with the antianxiety drugs is dangerous and can cause serious respiratory depression and profound sedation. Ingestion of alcohol with the antianxiety drugs can cause convulsions and coma.

Buspirone causes less additive CNS depression than do the other antianxiety drugs. However, it is recommended that concurrent use with a CNS depressant be avoided. Buspirone may increase serum digoxin levels, which increases the risk of digitalis toxicity.

Herbal Alert: Kava

Kava is a popular herbal remedy used to relieve stress, anxiety, and tension; promote sleep; and provide relief from menstrual symptoms. Although the FDA has not made a determination about the ability of kava dietary supplements to provide such benefits, it has issued an alert indicating that the use of kava may cause liver damage. Because kava-containing products have been associated with liver-related injuries (eg, hepatitis, cirrhosis, and liver failure), the safest use of kava is to take the herb occasionally for episodes of anxiety, rather than on a daily basis. It is important that individuals who use a kava-containing dietary supplement and experience signs of liver disease immediately consult their primary health care provider. Symptoms of liver disease include jaundice, urine with a brownish discoloration, nausea, vomiting, light-colored stools, weakness, and loss of appetite. Adverse effects experienced with the use of dietary supplements should be reported to the FDA's MedWatch program (see Appendix B). Identifying kava-containing products can be difficult. Careful reading of the "Supplement Facts" information on the label may identify kava by any of the following names:

Ava
Ava pepper
Awa
Kava root
Kava-kava
Kew
Piper methysticum Forst.f.
Piper methysticum G. Frost.
Piper methysticum
Sakau
Tonga
Yangona

NURSING PROCESS

● The Patient Receiving an Antianxiety Drug

ASSESSMENT

Preadministration Assessment

A patient receiving an antianxiety drug may be treated in the hospital or in an outpatient setting. Before starting therapy for the hospitalized patient, the nurse obtains a complete medical history, including mental status and anxiety level. In the case of mild anxiety, patients may (but sometimes may not) give a reliable history of their illness.

When severe anxiety is present, it is important to obtain the history from a family member or friend. During the time the history is taken, the nurse observes the patient for behavioral symptoms indicating anxiety (eg, psychomotor agitation [extreme restlessness], facial grimaces, tense posture). Physiologic manifestations of anxiety include increased blood

pressure and pulse rate, increased rate and depth of respiration, and increased muscle tension. An anxious patient will have cool and pale skin. Physical assessments include the blood pressure on both arms and in a sitting position, pulse, respiratory rate, and weight.

In addition, if possible, the nurse obtains a history of any past drug or alcohol abuse. Individuals with a history of previous abuse are more likely to abuse other drugs, such as the antianxiety drugs. Some patients, such as those with mild anxiety or depression, do not necessarily require inpatient care. These patients are usually seen at periodic intervals in the primary health care provider's office or in a psychiatric outpatient setting. The preadministration assessments of the outpatient are the same as those for the hospitalized patient.

Ongoing Assessment

An ongoing assessment is important for the patient taking an antianxiety drug. The nurse checks the patient's blood pressure before drug administration. If systolic pressure drops 20 mm Hg, the nurse withholds the drug and notifies the primary health care provider. The nurse periodically monitors the patient's mental status and anxiety level during therapy. The nurse assesses for improvement or worsening of behavioral and physical symptoms identified in the preadministration assessment.

The patient is monitored for adverse reactions. The sedation and drowsiness that sometimes occur with the use of an antianxiety drug may decrease as therapy continues. Prolonged therapy (> 3–4 months) may lead to dependence.

When the patient is an outpatient, the nurse observes the patient for a response to therapy at the time of each clinic visit. In some instances, the nurse may question the patient or a family member about the response to therapy. The type of questions asked depends on the patient and the diagnosis and may include questions such as: "How are you feeling," "Do you seem to be less nervous," or "Would you like to tell me how everything is going?" Many times the nurse may need to rephrase questions or direct the conversation toward other subjects until these patients feel comfortable and are able to discuss their therapy.

The nurse can ask the patient or a family member about adverse drug reactions or any other problems occurring during therapy. The nurse then brings these reactions or problems to the attention of the primary health care provider. The nurse documents a general summary of the patient's outward behavior and any complaints or problems in the patient's record. The nurse then compares notations to previous notations and observations.

Nursing Diagnoses Checklist

- ✓ **Anxiety** related to (individual manifestations)
- ✓ **Risk for Injury** related to an adverse drug reaction (eg, drowsiness or ataxia)

NURSING DIAGNOSES

Drug-specific nursing diagnoses are highlighted in the Nursing Diagnoses Checklist. Other nursing diagnoses applicable to these drugs are discussed in depth in Chapter 4.

PLANNING

The expected outcomes of the patient may include an optimal response to drug therapy, management of common adverse drug reactions, and a knowledge of and compliance with the prescribed therapeutic regimen.

IMPLEMENTATION

Promoting an Optimal Response to Therapy

The antianxiety drugs are not recommended for long-term use. When the antianxiety drugs are used for short periods (1–2 weeks), tolerance, dependence, or withdrawal symptoms usually do not develop. The nurse reports any signs of tolerance or dependence, such as the patient requesting larger doses of drug or increased anxiety and agitation (see Display 30-1).

When the patient is hospitalized, the nurse develops a nursing care plan to meet the patient's individual needs. Vital signs are monitored at frequent intervals, usually 3 to 4 times daily. In some instances, such as when hypotensive episodes occur, the vital signs are taken more often. The nurse reports any significant change in the vital signs to the primary health care provider.

Parenteral administration is indicated primarily in acute states. When these drugs are given intramuscularly, the nurse gives them in a large muscle mass, such as the gluteus muscle. The nurse observes the patient closely for at least 3 hours after parenteral administration. The patient is kept lying down (when possible) for 30 minutes to 3 hours after the drug is given.



Gerontologic Alert

Parenteral (IV or IM) administration to older adults, the debilitated, and those with limited pulmonary reserve requires that the nurse exert extreme care because the patient may experience apnea and cardiac arrest. Resuscitative equipment should be readily available during parenteral (particularly IV) administration.

The nurse may administer oral antianxiety drugs with food or meals to decrease the possibility of gastrointestinal upset. However, the nurse should use great care when administering these drugs orally because some patients have difficulty swallowing (due to a dry mouth or other causes). The patient may chew sugarless gum, suck on hard candy, or take frequent sips of water to reduce discomfort from dry mouth.

Gerontologic Alert

Benzodiazepines are excreted more slowly in older adults, causing a prolonged drug effect. The drugs may accumulate in the blood, resulting in an increase in adverse reactions or toxicity. For this reason, the initial dose should be small, and the nurse should increase dosages gradually until a therapeutic response is obtained.

However, lorazepam and oxazepam are relatively safe for older adults when given in normal dosages. Buspirone (BuSpar) also is a safe choice for older adults with anxiety because it does not cause excessive sedation, and the risk of falling is not as great. Before buspirone therapy is begun, benzodiazepines and sedatives and hypnotics are gradually withdrawn. Buspirone, unlike most of the benzodiazepines, must be taken regularly and is not effective on an as-needed basis.

Monitoring and Managing Adverse Drug Reactions

During initial therapy the nurse observes the patient closely for adverse drug reactions. Some adverse reactions, such as dry mouth, episodes of postural hypotension, and drowsiness, may need to be tolerated because drug therapy must continue. Nursing interventions to relieve some of these reactions may include offering frequent sips of water, assisting the patient out of the bed or chair, and supervising all ambulatory activities. The nurse should provide total assistance with activities of daily living to the patient experiencing extreme sedation, including help with eating, dressing, and ambulating.

Nursing Alert

Benzodiazepine withdrawal may occur when use of the antianxiety drugs is abruptly discontinued after 3 to 4 months of therapy. Occasionally, withdrawal symptoms may occur after as little as 4 to 6 weeks of therapy. Symptoms of benzodiazepine withdrawal include increased anxiety, concentration difficulties, tremor, and sensory disturbances, such as paresthesias, photophobia, hypersomnia, and metallic taste. To help prevent withdrawal symptoms, the nurse must make sure the dosage of the benzodiazepine is gradually decreased over a period of time, usually 4 to 6 weeks.

Although rare, benzodiazepine toxicity may occur from an overdose of the drug. Benzodiazepine toxicity causes sedation, respiratory depression, and coma. Flumazenil (Romazicon) is an antidote (antagonist) for benzodiazepine toxicity and acts to reverse the sedation, respiratory depression, and coma within 6 to 10 minutes after intravenous administration. The dosage is individualized based on the patient's response, with most patients responding to doses of 0.6 to 1 mg. However, the drug's action is short, and additional doses may be needed. Adverse reactions of flumazenil include agitation, confusion, seizures, and in some cases, symptoms of benzodiazepine withdrawal. Adverse reactions of flumazenil related to the symptoms of benzodiazepine withdrawal are relieved by the administration of the benzodiazepine.

Educating the Patient and Family

The nurse evaluates the patient's ability to assume responsibility for taking drugs at home. The nurse explains any adverse reactions that may occur with a specific antianxiety drug and encourages the patient or family members to contact the primary health care provider immediately if a serious drug reaction occurs.

The nurse should include the following points in a teaching plan for the patient or family member:

- Take the drug exactly as directed. Do not increase, decrease, or omit a dose or discontinue use of this drug unless directed to do so by the primary health care provider.
- Do not discontinue use of the drug abruptly because withdrawal symptoms may occur.
- Do not drive or perform other hazardous tasks if drowsiness occurs.
- Do not take any nonprescription drug unless use of a specific drug has been approved by the primary health care provider.
- Inform physicians, dentists, and other health care providers of therapy with this drug.
- Do not drink alcoholic beverages unless approval is obtained from the primary health care provider.
- If dizziness occurs when changing position, rise slowly when getting out of bed or a chair. If dizziness is severe, always have help when changing positions.
- If dryness of the mouth occurs, relieve it by taking frequent sips of water, sucking on hard candy, or chewing gum (preferably sugarless).
- If constipation occurs, relieve it by eating foods high in fiber, increasing fluid intake, and exercising if condition permits.
- Keep all appointments with the primary health care provider because close monitoring of therapy is essential.
- Report any unusual changes or physical effects to the primary health care provider.

EVALUATION

- The therapeutic effect is achieved, and the patient reports a decrease in feelings of anxiety.
- Adverse reactions are identified, reported to the primary health care provider, and managed successfully through appropriate nursing interventions.
- The patient verbalizes the importance of complying with the prescribed therapeutic regimen.
- The patient and family demonstrate an understanding of the drug regimen.

● Critical Thinking Exercises

1. Ms. Stovall, age 66 years, is hospitalized for congestive heart failure. She is improving, but has been complaining of feelings of anxiety. Her respirations are 32/min, heart rate 88 bpm, and blood pressure 118/60 mm Hg. The primary health care provider prescribes alprazolam 0.25 mg PO TID. What precautions would the nurse expect to be taken because of Ms. Stovall's age? Discuss what assessment findings would indicate increased anxiety.
2. The primary health care provider prescribes lorazepam for short-term management of anxiety. What information would be included in a teaching plan for this patient?
3. A patient is prescribed buspirone 5 mg PO TID to be taken on an outpatient basis. What assessments would be important for the nurse to make when the patient comes to the clinic for a visit?

● Review Questions

1. Alprazolam is contraindicated in patients with _____.
 - A. a psychotic disorder
 - B. congestive heart failure

- C. diabetes
- D. hypertension

2. The three types of psychotherapeutic drugs include _____.
 - A. antianxiety drugs, tranquilizers, and anxiolytics
 - B. antidepressants, psychotropic drugs, and anticonvulsants
 - C. antipsychotic drugs, benzodiazepines, and tranquilizers
 - D. antianxiety drugs, antidepressants, and antipsychotic drugs
3. Which antianxiety drug must be taken regularly and is not effective on a PRN basis?
 - A. lorazepam
 - B. buspirone
 - C. oxazepam
 - D. hydroxyzine
4. The benzodiazepines are pregnancy category _____. Drugs that should not be taken while lactating because the infant may _____.
 - A. B; seizure
 - B. C; develop the floppy infant syndrome
 - C. D; become lethargic and lose weight
 - D. X; become hypoglycemic

● Medication Dosage Problems

1. Hydroxyzine 100 mg IM is prescribed. Available is a vial with 100 mg hydroxyzine per mL. The nurse administers _____.
 - A. 1 mL
 - B. 2 mL
 - C. 3 mL
 - D. 4 mL
2. The patient is prescribed 30 mg oxazepam TID orally. The drug is available in 15-mg tablets. The nurse administers _____.
 - A. 1 tablet
 - B. 2 tablets
 - C. 3 tablets
 - D. 4 tablets