

**Introductory Clinical  
Pharmacology**

**Chapter 26  
Antipsychotic Drugs**

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**Lithium**

- Is not a true antipsychotic drug but is considered here for its use in regulating the severe fluctuation of the manic phase of bipolar disorder

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**Antipsychotic Drugs: Actions**

- Inhibiting or blocking release of neurotransmitter dopamine; increasing firing of nerve cells in certain areas of the brain; producing unpleasant extrapyramidal effects
- Atypical antipsychotics
  - Believed that they act on serotonin receptors as well as dopamine receptors in brain

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### Antipsychotic Drugs: Uses

- Used for the treatment of acute and chronic psychoses; bipolar illness; agitated behaviors associated with dementia
- Chlorpromazine: Used to treat uncontrollable hiccoughs
- Chlorpromazine and prochlorperazine are used as antiemetics

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### Antipsychotic Drugs: Adverse Reactions

- Generalized system reactions
  - Sedation; headache; hypotension; **dry mouth**; nasal congestion; urticaria; **photophobia**; photosensitivity
- Behavioral changes
  - Intensity of the psychotic symptoms; lethargy; hyperactivity; paranoid reactions; agitation; confusion

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### Antipsychotic Drugs: Adverse Reactions (cont'd)

- Extrapyramidal syndrome
  - Reactions occurring on extrapyramidal portion of nervous system
  - Antipsychotics: Abnormal muscle movement
  - Extrapyramidal effects: Akathisia, dystonia
  - Extrapyramidal effects diminish with reduction in the dosage

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### Antipsychotic Drugs: Adverse Reactions (cont'd)

- Tardive dyskinesia
  - Consists of irreversible, involuntary dyskinetic movements
  - Characterized by rhythmic, involuntary movements of the tongue, face, mouth, jaw, extremities
- Neuroleptic malignant syndrome
  - Combination of extrapyramidal effects; hyperthermia; autonomic disturbance

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### Antipsychotic Drugs: Contraindications and Precautions

- Contraindicated in clients with hypersensitivity; comatose; severe depression; bone marrow depression; blood dyscrasias; Parkinson's disease; liver impairment; coronary artery disease; severe hypotension or hypertension
  - Used when potential good outweighs any potential harm to fetus

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### Antipsychotic Drugs: Contraindications and Precautions (cont'd)

- Lithium contraindicated in patients with:
  - Hypersensitivity to tartrazine; renal or cardiovascular disease; sodium depletion; dehydration; patients on diuretics; during pregnancy and lactation
- Lithium is monitored carefully in patients:
  - Who sweat profusely, experience diarrhea or vomiting, with infection or fever causing fluid loss

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### Antipsychotic Drugs: Contraindications and Precautions (cont'd)

- Used cautiously in patients with respiratory disorders, glaucoma, prostatic hypertrophy, epilepsy, decreased renal function, and peptic ulcer disease

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### Antipsychotic Drugs: Interactions

Interactant drug	Effect of interaction
Anticholinergic drugs	Increased risk for TD and psychotic symptoms
Immunologic drugs	Increased severity of bone marrow suppression
<b>Antacids</b>	Decreased effectiveness of lithium
Loop diuretics, lithium with other antipsychotics	Increased risk for lithium toxicity
Alcohol	Increased risk for CNS depression

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### Nursing Process: Assessment

- Preadministration assessment
  - Assess patient's mental status
  - Note and record presence of hallucinations or delusions
  - Obtain complete mental health, social and medical history, behavior patterns
  - Assess blood pressure, pulse, respiratory rate, weight

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### Nursing Process: Assessment

- Preadministration assessment (cont'd)
  - Outpatients
    - Obtain complete medical history and history of symptoms of mental disorder
    - Observe patient's behavior pattern
    - Assess vital signs and body weight

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### Nursing Process: Assessment

- Ongoing assessment
  - Determine therapeutic drug effects
  - Monitor adverse reactions
  - Assess response to drug therapy (around-the-clock for inpatients)
  - Accurate assessments of adverse drug effects

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### Nursing Process: Nursing Diagnoses and Planning

- Risk for injury; impaired physical mobility; risk for imbalanced fluid volume; risk for infection
- The expected outcome includes an optimal response to therapy:
  - Reason for drug administration
  - Meeting of patient needs related to management of adverse drug reactions
  - Compliance with prescribed treatment regimen

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**Nursing Process: Implementation**

- Promoting an optimal response
  - Managing care of the inpatient
    - Record behavioral changes
    - Poor response to drug therapy: Require dosage changes or a drug change
    - Violent behavior: Give drug parentally
    - Inspect oral cavity to make sure drug is swallowed

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**Nursing Process: Implementation**

- Promoting an optimal response therapy (cont'd)
  - Managing care of the inpatient (cont'd)
    - Patient refuses to take drug: Contact PHCP
    - Use oral liquid for patients who have problem swallowing

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**Nursing Process: Implementation**

- Promoting an optimal response therapy (cont'd)
  - Managing care of the outpatient
    - Observe patient for response to therapy; ask questions of client and family
    - Ask about adverse drug reactions; notify PHCP about problems; document patient's behavior; record and compare with previous observations

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**Nursing Process: Implementation**

- Monitoring and managing patient needs
  - Offer frequent sips of water; assist patient out of bed or chair; supervise all ambulatory activities
  - Risk for injury
    - Provide total assistance with activities of daily living; monitor vital signs
    - Report significant change in vital signs to primary health care provider

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**Nursing Process: Implementation**

- Monitoring and managing patient needs (cont'd)
  - Impaired physical mobility
    - Observe adverse drug reactions
    - Use abnormal involuntary movement scale (AIMS)
    - Report to PHCP: Change in behavior or appearance of adverse reactions

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**Nursing Process: Implementation**

- Monitoring and managing patient needs (cont'd)
  - Impaired physical mobility (cont'd)
    - Observe for extrapyramidal effects
    - Assist with ambulation; reassure patient that symptoms will decline
  - Risk for infection
    - Monitor weekly WBC count; monitor for adverse reactions that indicate bone marrow suppression

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**Nursing Process: Implementation**

- Monitoring and managing patient needs (cont'd)
  - Imbalanced fluid volume
    - Monitor serum lithium levels; monitor patients taking lithium for signs of toxicity; increase oral fluid intake; monitor intake and output

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**Nursing Process: Implementation**

- Educating the patient and family
  - Evaluate patient's ability to assume responsibility for taking drugs at home
  - Points in teaching plan
    - Keep all primary care provider and clinic appointments
    - Report any unusual changes or physical effects
    - Take drug exactly as directed

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**Nursing Process: Implementation**

- Educating the patient and family (cont'd)
  - Do not drive or perform other hazardous tasks if drowsiness occurs
  - Do not take any nonprescription drugs
  - Inform physicians, dentists, and other medical personnel of therapy
  - Do not drink alcoholic beverages

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**Nursing Process: Implementation**

- Educating the patient and family (cont'd)
  - Take frequent sips of water, suck on hard candy, chew gum
  - Notify your primary care provider if pregnant or intend to become pregnant during therapy
  - Report adverse reactions
  - Avoid exposure to sun

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**Nursing Process: Implementation**

- Educating the patient and family (cont'd)
  - Take lithium with food or immediately after meals to avoid stomach upset
  - Note that olanzapine is available as a tablet to swallow or as an orally disintegrating tablet

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**Nursing Process: Evaluation**

- The therapeutic effect is achieved
- Adverse reactions are identified, reported, and managed
- No evidence of injury
- Patient verbalizes an understanding of treatment modalities and the importance of continued follow-up care

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**Nursing Process: Evaluation (cont'd)**

- Patient verbalizes the importance of complying with the prescribed therapeutic regimen
- Patient and family demonstrate understanding of the drug regimen

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**End of Presentation**

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