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

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
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

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

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
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

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

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
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

Antipsychotic Drugs: Interactions

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

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

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
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

Nursing Process: Implementation (cont’d)

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

Nursing Process: Implementation (cont’d)

• 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
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

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

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
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

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

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
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

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
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

End of Presentation