Nursing Process Focus:  
Patients Receiving Bethanechol (Urecholine)

### Assessment
Prior to administration:
- Assess for urinary retention, urinary patterns (initially and throughout therapy).
- Obtain complete health history; including allergies, drug history and possible drug interactions, pulmonary, cardiac, renal, biliary, and eye disorders.
- Obtain lab studies including: CBC, BUN, creatinine, electrolytes, liver functions tests.

### Potential Nursing Diagnoses
- Knowledge deficient: drug administration and effects related to newly prescribed drug.
- Urinary Elimination Impaired: incontinence related to side effects of medication
- Breathing pattern, Ineffective, related to bronchoconstriction
- Airway clearance, Ineffective, related to increased respiratory secretions

### Planning: Patient Goals and Expected Outcomes
The patient will:
- Demonstrate safe, accurate drug usage
- Regain usual pattern of urinary elimination
- Maintain effective oxygenation of tissues
- Report signs and symptoms of hepatotoxicity
- Demonstrate understanding of the drug's action by accurately describing drug side effects and precautions.

### Implementation

<table>
<thead>
<tr>
<th>Interventions and (Rationales)</th>
<th>Patient Education/Discharge Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor for cholinergic crisis, which may result from a cholinesterase inhibitor overdose: signs and symptoms include abdominal cramping, diarrhea, excessive salivation, difficulty breathing, and muscle cramping</td>
<td>Instruct patient to report nausea, vomiting, diarrhea, rash, jaundice, or change in color of stool, or any other adverse reactions to the drug.</td>
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<tr>
<td>Atropine 0.6 mg IV should be available for cholinergic crisis, which will alleviate the muscarinic effects, but will not manage respiratory depression. Mechanical ventilation must be provided for treatment of respiratory depression.</td>
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<td>Monitor liver enzymes with initiation of therapy and weekly for 6 weeks for possibility of hepatotoxicity. Report immediately.</td>
<td>Instruct patient to adhere to laboratory testing regimen for serum blood level tests of liver enzymes as directed.</td>
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<td>Monitor for appropriate self care administration to prevent complications.</td>
<td>Instruct patient to:</td>
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<td>• Take drug as directed on regular schedule to maintain serum levels and control symptoms</td>
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<td>• Avoid chewing or crushing sustained-release tablets</td>
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<td>• Take oral bethanechol on an empty stomach to lessen incidence of nausea and vomiting and to prevent decreased absorption.</td>
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### Evaluation of Outcome Criteria
Evaluate the effectiveness of drug therapy by confirming that patient goals and expected outcomes have been met (see “Planning”).
**Nursing Process Focus:**  
**Patients Receiving Atropine (Atropair, Atropisol)**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Potential Nursing Diagnoses</th>
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</table>
| Prior to administration:  
• Assess for heart rate, blood pressure, temperature and elimination patterns (initially and throughout therapy).  
• Obtain complete medical history including cardiac, visual, pulmonary, GI, urinary disorders including blood studies: CBC, electrolytes, cardiac enzymes, BUN, creatinine. May include EKG, pulmonary functions, and chest x-ray.  
• Obtain patient’s drug history to determine possible drug interactions and allergies. |  
• Knowledge deficient: drug administration and effects related to new use of drug.  
• Cardiac output, decreased, related to drug effect.  
• Body temperature, Risk for Imbalanced, related to side effect of drug.  
• Oral mucous membrane, altered related to effect of drug  
• Constipation related to decreased motility. |

**Planning: Patient Goals and Expected Outcomes**

The patient will:  
• Demonstrate expected outcomes of drug therapy and list reportable side effects  
• Experience no significant change in vital signs or level of consciousness  
• Demonstrate understanding of the drug's action by accurately describing drug side effects and precautions  
• Maintain an effective pattern of gastrointestinal elimination.

**Implementation**

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<td>Monitor patients with Down Syndrome for anticholinergic crisis. (These patients may be more sensitive to Atropine because the chromosomal distortions of Down Syndrome result in many functional abnormalities of major body systems, including the central nervous system, particularly the cholinergic and noradrenergic systems.)</td>
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</table>
• Instruct patients and caregivers to report any symptoms of anticholinergic crisis including fever, tachycardia, difficulty swallowing, ataxia, reduced urine output, psychomotor agitation, confusion, hallucinations.  
• Monitor for signs of anticholinergic crisis, which result from overdosage: fever tachycardia, difficulty swallowing, ataxia, reduced urine output, psychomotor agitation, confusion, hallucinations.  
| Observe for side effects such as drowsiness, blurred vision, tachycardia, dry mouth, urinary hesitancy, and decreased sweating. (These symptoms occur due to drug’s action on the ANS.). Report to health care provider. |  
• Instruct patients to report any symptoms of anticholinergic crisis.  
• Remember the simile: "Hot as Hades, Blind as a Bat, Dry as a Bone, Mad as a Hatter" as a guideline for reportable symptoms.  
• Caution patients that atropine impairs heat regulation. (Atropine can inhibit sweat glands secretions, due to direct blockade of the muscarinic receptors on the sweat |  
• Inform patient to limit activity outside when the temperature is hot. Strenuous activity in a hot environment may cause heat stroke.  
• Instruct patient:  
  • To report side effects.  
  • To avoid driving until effect of medication is known.  
  • That oral rinses, sugarless gum or candy, and frequent oral hygiene may help relieve dry mouth.  
  • To avoid alcohol-containing mouthwashes which can further dry oral tissue.
glands. Sweating is necessary for patients to cool down and this can increase their risk for hyperthermia.

- Inform male patients with benign prostatic hypertrophy that atropine may cause urinary hesitancy and retention.

- Monitor patients routinely for abdominal distention and auscultate for bowel sounds. (This is due to muscarinic blockade on the tone and motility of intestinal smooth muscle)

- Use cautiously with the elderly or very young. Symptoms that might be more pronounced in the elderly are urinary retention, constipation, and blurred vision (due to normal aging). For the very young, body systems are not fully developed so assess all systems in order to decrease possible complications.

- Instruct the patient to notify their practitioner if changes in urinary stream occur.

- Inform the patient to increase fluid and add bulk to the diet, if constipation becomes a problem.

- Inform patient and caregivers to report any adverse reactions to the health care provider.

**Evaluation of Outcome Criteria**

Evaluate the effectiveness of drug therapy by confirming that patient goals and expected outcomes have been met (see “Planning”).