**Nursing Process Focus:**

**Patients Receiving Bethanechol (Urecholine)**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Potential Nursing Diagnoses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to administration:</td>
<td>• Deficient Knowledge, related to drug administration and effects related to newly prescribed drug</td>
</tr>
<tr>
<td>- Assess for urinary retention, urinary patterns (initially and throughout therapy).</td>
<td>• Urinary Incontinence, related to side effects of medication</td>
</tr>
<tr>
<td>- Obtain complete health history; including allergies, drug history and possible drug interactions, pulmonary, cardiac, renal, biliary, and eye disorders.</td>
<td>• Ineffective Breathing Pattern, related to bronchoconstriction</td>
</tr>
<tr>
<td>- Obtain lab studies including: CBC, BUN, creatinine, electrolytes, liver functions tests.</td>
<td>• Ineffective Airway Clearance, related to increased respiratory secretions</td>
</tr>
</tbody>
</table>

**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>
</tr>
<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>
<td></td>
</tr>
<tr>
<td>*Monitor liver enzymes with initiation of therapy and weekly for 6 weeks for possibility of hepatotoxicity.</td>
<td>*Instruct patient to adhere to laboratory testing regimen for serum blood level tests of liver enzymes as directed.</td>
</tr>
<tr>
<td>*Monitor for appropriate self care administration to prevent complications.</td>
<td>Instruct patient:</td>
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<tr>
<td></td>
<td>• to take drug as directed on regular schedule to maintain serum levels and control symptoms.</td>
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<td></td>
<td>• to avoid chewing or crushing sustained-release tablets.</td>
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<tr>
<td></td>
<td>• to take oral bethanechol on an empty</td>
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</table>
stomach to lessen incidence of nausea and vomiting and to prevent decreased absorption.

<table>
<thead>
<tr>
<th><strong>Evaluation of Outcome Criteria</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluate the effectiveness of drug therapy by confirming that patient goals and expected outcomes have been met (see “Planning”).</td>
</tr>
</tbody>
</table>
Nursing Process Focus:
Patients Receiving Atropine (Atropair, Atropisol)

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Potential Nursing Diagnoses</th>
</tr>
</thead>
</table>
| Prior to administration:  
• Assess for heart rate, blood pressure, temperature and elimination patterns (initially and throughout therapy).  
• Obtain complete health 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.  |  
• Deficient Knowledge, related to drug administration and effects related to new use of drug  
• Decreased Cardiac Output, related to drug effect  
• Risk for Imbalanced Body Temperature, related to side effect of drug  
• Impaired Oral Mucous Membrane, 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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<tr>
<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>
<td>*Instruct patients and caregivers to report any symptoms of anticholinergic crisis including fever, tachycardia, difficulty swallowing, ataxia, reduced urine output, psychomotor agitation, confusion, hallucinations.</td>
</tr>
<tr>
<td>*Monitor for signs of anticholinergic crisis, which result from overdosage: fever, tachycardia, difficulty swallowing, ataxia, reduced urine output, psychomotor agitation, confusion, hallucinations.</td>
<td></td>
</tr>
</tbody>
</table>
• 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. |
| *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.) | 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.

<table>
<thead>
<tr>
<th>*Caution patients that atropine impairs heat regulation. (Atropine can inhibit sweat glands secretions, due to direct blockade of the muscarinic receptors on the sweat glands. Sweating is necessary for patients to cool down and this can increase their risk for hyperthermia.)</th>
<th>*Inform patient to limit activity outside when the temperature is hot. Strenuous activity in a hot environment may cause heat stroke.</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Inform male patients with benign prostatic hypertrophy that atropine may cause urinary hesitancy and retention.</td>
<td>*Instruct the patient to notify their practitioner if changes in urinary stream occur.</td>
</tr>
<tr>
<td>*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.)</td>
<td>*Inform the patient to increase fluid and add bulk to the diet if constipation becomes a problem.</td>
</tr>
<tr>
<td>*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.</td>
<td>*Inform patient and caregivers to report any adverse reactions to the health care provider.</td>
</tr>
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</table>

**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 Phenylephrine

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</table>
| Prior to administration:  
• Monitor cardiac output, central venous pressure, pulmonary artery wedge pressure, standard vital signs and urinary output.  
• Monitor vital signs and observe the nasal mucosa for changes such as excoriation or bleeding.  
• Obtain complete health history including cardiac, visual, pulmonary, GI, urinary disorders including blood studies: CBC, electrolytes, cardiac enzymes, BUN, creatinine. May include EKG, pulmonary functions, and x-rays of the chest or nasal sinuses.  
• Obtain patient’s drug history to determine possible drug interactions and allergies.  
| • Deficient Knowledge, related to drug administration and effects related to newly prescribed drug  
• Decreased Cardiac Output, related to effect of drug on heart muscle  
• Ineffective Tissue Perfusion, related to drug effect  
• Ineffective Breathing Pattern, related to nasal congestion |

<table>
<thead>
<tr>
<th>Planning: Patient Goals and Expected Outcomes</th>
</tr>
</thead>
</table>
| The patient will:  
• Demonstrate understanding of the drug's action.  
• Return demonstrate proper nasal medication instillation technique.  
• Demonstrate effective nasal airway clearance.  
• Maintain vital signs within normal range.  
• Maintain effective tissue perfusion. |

<table>
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</table>
| Interventions and (Rationales) | Inform patients:  
*Use with extreme caution in patients with coronary artery disease, heart disease—especially heart block and hypertension. (Drug stimulates alpha1 receptors, causing an increase in blood pressure.)  
*Monitor patients with diabetes mellitus and hyperthyroidism carefully. (Patients with diabetes are at increased risk of coronary artery disease; patients with hyperthyroidism experience a severe increase in basal metabolic rate, resulting in increased blood pressure and tachycardia. Therefore, both are at increased risk of malignant hypertension and myocardial infarction.)  
| to immediately report shortness of breath, palpitations, dizziness, chest/arm pain or pressure or other "angina-like" symptoms.  
• to consult their health care provider before attempting to use phenylephrine to treat nasal stuffiness or eye irritation.  
• to monitor blood pressure, pulse and temperature ensuring proper use of home equipment.  
| Instruct patient:  
• to report change in heart rate and rhythm, or chest pain.  
• to report elevated temperature, increased heart rate, and behavioral changes to the health care provider. |
*Monitor breathing patterns and observe for shortness of breath and/or audible wheezing. (Phenylephrine may trigger asthma.)

Instruct the patient:
- to immediately report any difficulty breathing.
- with a history of asthma to consult their health care provider before attempting to use phenylephrine to treat nasal stuffiness.

*In hypotensive emergencies, monitor all vital signs, including cardiac output, central venous pressure, and pulmonary wedge pressure. Monitor urine output and tissue perfusion (via pulse oximetry and/or arterial blood gases per ICU/ED protocol).

*Instruct patients to report all drug side effects, especially headache, weakness or changes in sensorium like dizziness or altered level of consciousness.

- Observe the patient's responsiveness to light. (Phenylephrine causes photosensitivity by affecting the pupillary light accommodation/response.)
- For patients receiving parenteral phenylephrine, provide eye comfort by reducing exposure to direct bright light in the environment, shield the eyes with a rolled washcloth or eye bandages for severe photosensitivity.

Instruct patient:
- if using ophthalmic phenylephrine, that transient "stinging" and blurred vision upon instillation is normal. Headache and/or brow pain may also occur.
- to avoid driving and other activities requiring visual acuity until blurring subsides.

*Monitor patient's eyes for redness, excessive lacrimation, or other signs of a local reaction. (Phenylephrine can lower intra-ocular pressure, affecting open (wide)-angle glaucoma.)

Instruct patient that persistent redness, blurring or other symptoms occurring 12 or more hours after discontinuation of the drug should be reported to the health care provider.

*Observe the patient's nasal cavity. Monitor for rhinorrhea/epistaxis.

Instruct patient:
- to observe the nasal cavity for signs of excoriation or bleeding before instilling nasal spray or drops.
- on the procedure for safe instillation of nasal sprays or drops.
- to limit "over-the-counter" usage of phenylephrine; inform the patient about rebound nasal congestion

*Use cautiously with the elderly or young. Symptoms that might be more pronounced in the elderly are hypertension and dysrhythmias due to aging. For the very young, body systems are not fully developed so assess all systems in order to decrease possible complications.

Instruct 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”).
Nursing Process Focus:
Patients Receiving Prazosin (Minipress)

### Assessment
Prior to administration:
- Obtain complete health history including allergies, pulmonary, cardiac, renal, biliary, and mental or sleep disorders, including EKG and laboratory studies: CBC, BUN, creatinine, electrolytes, liver function tests.
- Obtain patient’s drug history to determine possible drug interactions and allergies.

### Potential Nursing Diagnoses
- Deficient Knowledge, related to drug administration and effects
- Disturbed Sensory Perception, related to side effect of drug
- Risk for Injury, related to dizziness, syncope
- Urinary Retention, related to effects of drug
- Sexual Dysfunction, related to side effect of drug

### Planning: Patient Goals and Expected Outcomes
The patient will:
- Avoid injury related to altered sensorium.
- Demonstrate understanding of the drug's action and side effects.
- Maintain unaltered urinary pattern.

### Implementation

<table>
<thead>
<tr>
<th>Interventions and (Rationales)</th>
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| *Monitor for syncope. (Prazosin produces "First Dose Syncope" phenomenon, and may cause loss of consciousness.)* | *Warn the patient about the first dose phenomenon; reassure that this effect diminishes with continued therapy. Instruct the patient:*
  - to take this medication at bedtime, and to take the first dose **immediately** before getting into bed.
  - to always **arise slowly**, avoiding sudden posture changes. |
| *Monitor vital signs, level of consciousness and mood. (Prazosin can exacerbate existing mental depression due to its depressant action on the central nervous system.)* | *Instruct patient to immediately report any feelings of dysphoria.*
  *Interview patient regarding suicide potential; obtain a "no-self harm" verbal contract from the patient.* |
| *Monitor carefully for dizziness, drowsiness or lightheadedness. (These are signs of decreased blood flow to the brain due to the drug’s hypotensive action.)* | Instruct the patient
  - to monitor vitals signs (especially blood pressure), ensuring proper use of home equipment.
  - regarding the normotensive range of blood pressure; instruct the patient to consult the health care provider regarding "reportable" blood pressure readings (e.g. "lower than...").
  - to report dizziness or syncope which persists beyond the first dose, as well as paraesthesias and other neurological changes. |
| *Observe for side effects which may include* | Inform patients: |
| Blurred vision, tinnitus, epistaxis and edema. | • that nasal congestion may be a side effect.  
• about the potential danger of concomitant use of over-the-counter nasal decongestants (such as oxymetazoline or phenylephrine).  
• and caregivers to report any adverse reactions to the health care provider. |
|---|---|
| *Monitor liver function due to an increased risk for liver toxicity.* | Instruct the patient:  
• to adhere to a regular schedule of laboratory testing for liver function as ordered by the health care provider.  
• to report signs and symptoms of hepatic toxicity.  
• to report nausea, vomiting, diarrhea, rash, jaundice, abdominal pain, tenderness or distention, or change in color of stool. |

**Evaluation of Outcome Criteria**

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