RN Pharmacology Exam Content Outline

Exam Objective: To measure the overall level of clinical knowledge in the area of RN Pharmacology.

Knowledge Domains - RN Pharmacology Exam

- Adverse Effects/Side Effects: 8%
- Contraindications/Interactions: 19%
- Dosage Calculations: 14%
- Expected Actions/Outcomes: 32%
- Parenteral/Intravenous Therapies: 14%
- Patient Teaching: 14%
I. Adverse Effects/Side Effects
   A. Knowledge of a variety of medications, such as diuretics, narcotic analgesics, anti-hypertensives, anti-diabetics, NSAIDs, etc. and their effects on patients.
   B. Knowledge of common side effects in a variety of medications as listed above.
   C. Knowledge of signs and symptoms of adverse reactions to a variety of medications as listed above, and how to treat accordingly if indicated.

II. Contraindications/Interactions
   A. Knowledge of medication contraindications.
   B. Knowledge of medication administration related to procedures:
      1. Contrast dye studies
      2. Dialysis
   C. Knowledge of medication interactions.
   D. Knowledge of appropriate medication administration methods/routes.
   E. Ability to identify and manage signs and symptoms of allergies and/or adverse reactions.
   F. Knowledge of antidotes and/or reversal agents for common medications.

III. Dosage Calculations
A. **Knowledge of how to perform mathematical conversions:**

<table>
<thead>
<tr>
<th>Conversion references:</th>
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<tbody>
<tr>
<td>lbs/2.2 = kilograms</td>
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<tr>
<td>kg x 2.2 = pounds</td>
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B. **Knowledge of how to perform dosage calculation:**

<table>
<thead>
<tr>
<th>Dose Calculation Formula:</th>
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<tbody>
<tr>
<td>dose ordered x volume available = dose to administer</td>
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<tr>
<td>dose available</td>
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</table>

C. **Knowledge of how to perform IV dosage calculation (rate and drops per minute):**

<table>
<thead>
<tr>
<th>IV Drops/Minute Formula: volume x drip factor = gtt/min</th>
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<tbody>
<tr>
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<tr>
<td>IV ml/hr Formula: volume = mL/hr</td>
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IV. **Expected Actions/Outcomes**

A. **Knowledge of medications and their effects on patients.**

B. **Knowledge of monitoring normal and abnormal lab parameters associated with medication administration**

   1. INR level monitoring for patients on Warfarin
   2. Potassium level monitoring for patients on Furosemide
C. Knowledge of medication attributes:
   1. Classification
   2. Indications
   3. Actions

V. Parenteral/Intravenous Therapies
   A. Knowledge of TPN administration:
      1. Lab values to monitor
      2. IV line maintenance
      3. Tubing changes
   B. Knowledge of blood and blood products administration:
      1. Blood type compatibility
      2. Duration of administration
      3. IV solution compatibility
   C. Knowledge of IV medication administration.
      1. Duration of IV push
      2. IV solution compatibility

VI. Patient Teaching
   A. Knowledge of assessing patient understanding of information.
   B. Knowledge of assessing patient PCA education.
   C. Knowledge of providing patient oriented discharge teaching related to medication understanding including but not limited to:
      1. Dietary considerations
      2. Medication administration time
3. How to take the medication appropriately (e.g. drinking a full glass of water, increase fluid intake etc.)