

# **NURSING 101: FOUNDATIONS OF NURSING**

## **UNIT II: THE CLINICAL UNIT – PART II - ADMINISTRATION OF MEDICATIONS:**

### **CLINICAL OBJECTIVES**

#### **AT THE COMPLETION OF THIS UNIT, THE STUDENT WILL:**

1. Understand essential medication information, including medication categories and brand vs trade names.
2. Describe pharmacokinetic properties of medications and explore individual factors that influence medication actions, including those specific to the elderly.
3. Understand various pharmacological concepts including therapeutic use, adverse medication reactions, tolerance, contraindications and interactions.
4. Discuss legislation to control medications and nurse's legal responsibilities in medication administration.
5. Discuss significant ATI Medication Template information and utilize available resources for finding medication information.
6. State the necessary components of a medication order and differentiate between types of medication orders.
7. Identify the 10 “Rights” of medication administration and discuss preventative measures to minimize medication errors.
8. Identify the various routes for medication administration and follow appropriate administration procedures.
9. Discuss the use of the nursing process throughout medication administration.
10. Demonstrate knowledge of dosing equivalents to perform drug dosage calculations correctly.
11. Discuss the implications of herbal medication use on nursing care.
12. Identify the purpose(s) and principles of IV therapy.
13. Discuss isotonic, hypotonic, and hypertonic IV solutions, and identify appropriate uses for each.
14. Demonstrate knowledge of dosage calculation in determining IV flow rates.
15. Demonstrate understanding of correct procedures for initiating, maintaining and monitoring IV therapy.
16. Demonstrate understanding of assessment, prevention and treatment of IV therapy complications.
17. Describe appropriate, evidence-based resources, including websites, to reference current medication information.
18. Identify evidence-based practice/best practice standards related to medication administration.
19. Exhibit accountability when administering medications in all healthcare settings.



CONTENT/ HOURS	TEACHING STRATEGIES	SUPPORTING ACTIVITIES	EVALUATION METHODS
<ul style="list-style-type: none"> <li>f. FDA Regulations</li> <li>g. Medication Reconciliation</li> <li>III. The Medication Order               <ul style="list-style-type: none"> <li>a. Communicating Medication Orders</li> <li>b. Components of a Medication Order</li> <li>c. Types of Medication Orders</li> </ul> </li> <li>IV. Rights of Safe Medication Administration               <ul style="list-style-type: none"> <li>a. Three Checks/Ten Rights</li> <li>b. Look Alike/Sound Alike Medications</li> <li>c. Medication Errors</li> <li>d. High Alert Medications</li> </ul> </li> <li>V. Using the Nursing Process to Prevent Med Errors               <ul style="list-style-type: none"> <li>a. Assessment</li> <li>b. Planning</li> <li>c. Implementation</li> <li>d. Evaluation</li> </ul> </li> <li>VI. Social Determinants of Health</li> <li>VII. ATI Medication Template               <ul style="list-style-type: none"> <li>a. Resources</li> <li>b. Med Classification</li> <li>c. Expected Pharmacological Action/ Therapeutic Use</li> <li>d. Med Administration</li> <li>e. Complications</li> <li>f. Contraindications/ Precautions</li> <li>g. Med Interactions</li> <li>h. Nursing Interventions</li> <li>i. Client Education</li> <li>j. Evaluation of Medication Effectiveness</li> </ul> </li> <li>VIII. Dosage Calculations               <ul style="list-style-type: none"> <li>a. Measurement Systems</li> <li>b. Common Equivalents</li> <li>c. Converting Units of Measurement</li> </ul> </li> </ul>	<p>Cooperative Learning: Components of Med Order/Matching</p> <p>Visual based Learning: That Nursing Prof, Beebe Net: Look Alike/Sound Alike Meds</p> <p>Cooperative Learning: ATI Medication Templates</p> <p>Visual Based Learning: ATI Nurse Lucy Video</p>	<p>ATI Active Learning Templates: Medication</p> <p>Clinical Experience</p> <p>Pre/ Post Conference</p> <p>Class Preparation: Equivalents Worksheet</p>	<p>Unit Exam</p> <p>Quiz</p> <p>Class Prep</p> <p>Clinical Evaluation</p> <p>Labs/ Competencies</p>

CONTENT/ HOURS	TEACHING STRATEGIES	SUPPORTING ACTIVITIES	EVALUATION METHODS
<ul style="list-style-type: none"> <li>d. Rounding Guidelines, Zeroes and Decimal Points</li> <li>e. Dosage Calculations               <ul style="list-style-type: none"> <li>i. Dimensional Analysis</li> <li>ii. Desired Over Have</li> <li>iii. Ratio and Proportion Model</li> </ul> </li> <li>f. Resources               <ul style="list-style-type: none"> <li>i. PracSafe Orientation</li> </ul> </li> <li>IX. Oral Medications               <ul style="list-style-type: none"> <li>a. Advantages/Disadvantages of Oral Route</li> <li>b. Rates of Absorption</li> <li>c. Forms of oral medications</li> <li>d. Nursing Process                   <ul style="list-style-type: none"> <li>i. Preparation</li> <li>ii. Assessment</li> <li>iii. Implementation</li> </ul> </li> <li>e. Clinical judgment scenarios</li> <li>f. Herbal therapies/Medical Marijuana</li> </ul> </li> <li>X. Topical Medications               <ul style="list-style-type: none"> <li>a. Skin Preparation Procedure</li> <li>b. Ophthalmic Medication Procedure</li> <li>c. Otic Medication Procedure</li> <li>d. Nasal Medication Procedure</li> <li>e. Rectal Suppositories Procedure</li> <li>f. Vaginal Medication Procedure</li> <li>g. Inhaled Medication Procedure</li> </ul> </li> <li>XI. Enteral Medications               <ul style="list-style-type: none"> <li>a. Assessment</li> <li>b. Preparation</li> <li>c. Procedure</li> <li>d. Clinical Judgment Scenario</li> </ul> </li> <li>XII. Parenteral Medications               <ul style="list-style-type: none"> <li>a. Advantages/Disadvantages</li> <li>b. Older Adult Considerations</li> </ul> </li> </ul>	<p>Cooperative Learning: Prac+Safe Oral and Liquid calculations</p> <p>Cooperative Learning: Med Rights Practice Prac+Safe, Practice Math Worksheets</p> <p>Cooperative Learning: In class oral medication activity</p> <p>Experiential Learning: Medication Escape Room</p> <p>Interactive Lecture: NGT med administration scenario</p>	<p>Class Preparation: Prac+Safe Dosage Calculation Modules</p> <p>ATI: Safe Medication Dosage Modules</p> <p>Clinical Experience Pre/Post Conference</p> <p>ATI: Safe Medication Dosage Modules</p>	<p>Unit Exam Quiz Class Prep Clinical Evaluation</p>



CONTENT/ HOURS	TEACHING STRATEGIES	SUPPORTING ACTIVITIES	EVALUATION METHODS
<ul style="list-style-type: none"> <li>l. IV Bag and Tubing Labels</li> <li>m. Calculating IV Flow Rates</li> <li>n. Calculating Manual Flow Rates</li> <li>o. Calculating Infusion Time</li> <li>p. Regulating and Monitoring of IV Infusions</li> <li>q. Initiating, Maintaining, and Monitoring IV Therapy               <ul style="list-style-type: none"> <li>i. IV Administration Considerations - CARDS                   <ul style="list-style-type: none"> <li>1. Compatibility</li> <li>2. Amount</li> <li>3. Rate of Administration</li> <li>4. Dilution</li> <li>5. Supplies, Site, Storage, Stability</li> </ul> </li> </ul> </li> <li>r. IV Procedures               <ul style="list-style-type: none"> <li>i. Devices to control infusion rate</li> <li>ii. IV setups</li> <li>iii. Priming IV Tubing</li> <li>iv. Loading and Programming a Secondary Infusion</li> <li>v. Activating Minibags</li> <li>vi. IV Piggybacks</li> <li>vii. Y Site Infusion</li> <li>viii. Tips and Tricks</li> <li>ix. Resources</li> </ul> </li> <li>s. Monitoring and Maintaining IV site               <ul style="list-style-type: none"> <li>i. Maintaining Patency</li> <li>ii. Flushing a saline lock</li> <li>iii. Replacing IV Solution</li> <li>iv. Discontinuing PIV</li> <li>v. Beebe Healthcare Policies</li> <li>vi. Documentation</li> </ul> </li> <li>t. Complications of IV Therapy               <ul style="list-style-type: none"> <li>i. Infiltration/Extravasation</li> </ul> </li> </ul>	<p>Interactive Lecture: Calculating IV Flow Rates</p> <p>Problem-based Learning: IV Calculations Worksheet</p> <p>Problem-based Learning: Prac+Safe IV calculations</p> <p>Visual Based Learning: IV procedure demo videos/ Baxter Pump Demonstration Video</p> <p>Interactive Lecture: Review of article “Where Did This Patient’s IV Therapy Go Awry?”</p>	<p>Clinical Experience Pre/Post Conference</p>	<p>Unit Exam Quiz Class Prep Clinical Evaluation IV Therapy Evaluation IV Med Admin Evaluation</p>

CONTENT/ HOURS	TEACHING STRATEGIES	SUPPORTING ACTIVITIES	EVALUATION METHODS
<ul style="list-style-type: none"> <li>ii. Phlebitis/ Thrombophlebitis</li> <li>iii. Fluid Overload</li> <li>iv. Cellulitis</li> <li>v. Air Embolus</li> <li>vi. Catheter Embolus</li> <li>vii. Documentation</li> </ul> <p>XIV. IV Medication</p> <ul style="list-style-type: none"> <li>a. Types of IV Med Administration               <ul style="list-style-type: none"> <li>i. Secondary Medication Administration</li> </ul> </li> <li>b. CARDS Considerations Review</li> </ul>			