Valley Grande Institute

VNSG 1227

ESSENTIALS OF MEDICATION ADMINISTRATION

FINAL EXAM STUDY GUIDE

Chapters 6 and 7:

1. Correctly round numbers per the official rounding policy.
2. Correctly label units using appropriate abbreviations (mL, L, cm, oz, fl oz, lb, kg, etc.)
3. Demonstrate use of the most common equivalents of the metric, household and apothecary measurement systems.
4. Correctly convert units of measurement within and between the metric, apothecary, and household measurement systems.
    a. Convert between units of liquid volume: milliliters, Liters, oz, pints, etc.
    b. Convert between units of length: inches, centimeters, and millimeters.
    c. Convert between units of weight: pounds and kilograms, pounds and ounces to kilograms.
5. Correctly convert fractions to decimals.
6. Express metric measures correctly using rules of the metric system (decimals).
7. Understand Roman numerals and convert to or from Arabic numerals.
8. Correctly convert between traditional and international/military time.
9. Understand common medical abbreviations (many based on Latin) used in medication administration (ac, pc, bid, qid, prn, etc.)

Chapters 8, 9 and 10

1. Understand the consequences of medication errors
2. Identify the causes of medication errors

3. Identify the role of the nurse in preventing medication errors
4. identify the role of the Institute for Safe Medication Practices (ISMP) and The Joint Commission (TJC) in preventing medication errors
5. State the base six “rights” of safe medication administration
6. Know the three checks when administering medication to patients
7. Identify factors that influence medication dosages – age, weight, etc.
8. Identify the common routes for medication administration
9. Explain the importance of critical thinking in medication administration: Does it make sense?
10. Identify special considerations relating to the elderly and medication administration:
    a. Polypharmacy
    b. Dosages
    c. Patient education
11. Identify home care considerations in relation to medication administration
12. State the components of a medication order. Identify the necessary components of a Medication Administration Record (MAR).
13. Understand how to read a Medication Administration Record and identify medications that are to be administered on a routine basis, including the name of the medication, the dosage, the route of administration, and the time of administration.
14. Identify various medication distribution systems:
    a. Pyxis
    b. Omnicell
15. Identify the components of a medication order and their correct order
16. identify meanings of standard abbreviations used in medication administration
17. Be able to interpret a given medication order correctly
18. identify abbreviation, acronyms, and symbols recommended by The Joint Commission (TJC) “Do Not Use” list, and Institute for Safe Medication Practices (ISMP’s) list of error-prone abbreviations, symbols, and dose designations
19. Read and write correct medical notations

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Chapters 11 and 12:

20. Identify the forms of oral medication.
21. Identify the terms on the medication label to be used in calculation of dosages.
22. Calculate dosages for oral and liquid medications using dimensional analysis.
23. Apply principles learned concerning tablet and liquid preparations to obtain a rational answer. Does the answer make sense?
24. Correctly using the dimensional analysis method to solve problems of oral dosages involving tablets, capsules, liquid medications, and those measured in milliequivalents.
25. Correctly convert all measures within the problem to equivalent measures in one system of measurement if required.
26. Identify various types of syringes used for parenteral administration.
27. Read parenteral solution labels and identify dosage strengths.
28. Read and measure dosages on a syringe.
29. Calculate dosages of parenteral medications.
30. Identify the appropriate syringe to administer the dosage based on the dosage calculation.
    Accurately read medication labels and be able to identify important information

Chapters 13 and 14:

1. Understand what heparin and warfarin does

2. State the importance of calculating heparin dosages accurately.

3. Identify errors that have occurred with heparin administration.

4. Know what tests must be done before administering Heparin or Warfarin

5. Identify important information on insulin labels.

6. Identify various methods for insulin administration.

7. Read calibrations on 30-, 50-, and 100-unit syringes.

8. Measure insulin in single dosages.

9. Prepare a solution from a powdered medication according to directions on the vial or other resources.

10. Identify essential information to be placed on the vial of a medication after it is reconstituted.

11. Determine the best concentration strength for medications ordered when there are several directions for mixing.

12. Identify the varying directions for reconstitution and select the correct directions to prepare the dosage ordered

Dosage Calculations by Weight:

1. Convert body weight from pounds to kilograms.
2. Calculate dosages based on milligrams per kilogram.
3. Determine whether a dosage is safe based on manufacturer recommendation of safe range.
4. If order is safe calculate dose to be administered based on form and amount of medication available.
5. Recognize difference between individual dose and total daily dose amounts.

IV Flow Rate Calculations:

6. Calculate milliliters per hour (mL/hr) IV flow rate settings.
7. Identify two types of administration tubing.
8. Identify from intravenous (IV) tubing packages the drop factor in drops per milliliter (gtt/mL).
9. Calculate IV flow rate in drops per minute (gtt/min) using dimensional analysis.
10. Calculate infusion length and completion times.