

Covenant School of Nursing
Instructional Module1 Learning Guide
Topic: Introduction to Medication Math (Dosage Calculations)

Learning Goals/Outcomes

Upon completion of this lesson, you will be able to:

- Convert values between and among the metric system and “household” measurements
- Calculate drug dosages
- Utilize the information from a drug label to calculate dosages
- Apply the Joint Commission (TJC) and Institute of Safe Medication Practice (ISMP) principles to the administration of medications

Pre-Class Preparation

Required:

- Review PPT slides
- Read: Potter, P.A., Perry, A.G., Stockert, P.A., Hall, A.M., Fundamentals of Nursing, 10th ed., 2021.
Chapter 31 (Medication Administration) Sections: *Routes of Administration, Systems of Medication Measurement, Clinical Calculations*, pp 596-602

Complete

- The online assignments listed in Learning Activities have a course due date that is documented in the Lesson information - HESI Recommended Due Dates. It is recommended that you complete the activities prior to class for an introduction to the lecture.
- **An average score of 80% on each quiz in this assignment is required. Failure to complete the assignments by the due date will result in an absence – review your syllabus.**

Additional Resources:

- www.ISMP.org & www.JointCommission.org - for both websites, search calculation topics
- HESI: Drug Calculations Online: Module 7 - Methods of Calculation for Individualized Drug Dosing, Lesson 1

Learning Activities

Classroom Activities:

- Content presentation via PowerPoint
- Math practice problems with active Q&A

Laboratory/Clinical:

- Simulation Medication Administration Labs
- Mock CPE involving Simulation Medication Administration

Online: HESI

- Go to My Evolve
Select Drug Calculations Online
Next select Course Content
Review the module and complete the quiz – must have an average of 80%
Module 1: Systems Used for Drug Administration
Module 2: Conversions within Metric & Household Systems
Module 6: Methods of Calculation

Evaluation Methods	
<ul style="list-style-type: none"> • Medication Math Exams (4) • Medication Math Packet(s) 	
Texas DECs	QSEN Competencies
Knowledge: I.A. 1, 2, 3, 4 Clinical Judgments & Behaviors: I.A. 1, 2, 3 I.B. 5a, 5c, 6	Patient Centered Care Teamwork & Collaboration EBP Safety
IM Student Learning Outcomes	NCLEX Test Plan
(2) Use communication methods required to provide safe, effective, and compassionate care. (3) Use reliable health and disease information resources in making clinical decisions. (6) Acknowledg	Pharmacological and Parental Therapies: Dosage Calculations Safe & Effective Care Environment: Accident-Error-Injury Prevention
Concepts	Faculty
Clinical Judgment; Patient Education; Professionalism; Evidenced-Based Practice; Health Policy; Safety	<i>D. Dutton, MSN, RNC-OB</i>
Date originated: 6-15	Revision Dates: 4-16; 6-16;7-16;1-1; 4-17; 9-17;12-17;2-18; 1-19; 04/17/19; 8/28/19; 02/09/2021; 01/25/22

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CSON Learning Guide (adopted 5-2015 by Faculty vote) - adapted from Smith, R. M. Conquering the Content. San Francisco: Jossey-Bass, 2008.