

Covenant School of Nursing
Instructional Module1 Learning Guide
Topic: Introduction to 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

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) and 11th ed. (2023)
Chapter 31: Medication Administration
Sections: *Routes of Administration, Systems of Medication Measurement, Clinical Calculations*

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 conversions and dose calculation 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

- Dosage Calculation Exam (a score less than 85% requires remediation) - Dosage Calculation Packet(s)	
Texas DEC's	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
(1) Collect accurate bio-psycho-social-spiritual-cultural patient data from adult medical-surgical patients. (2) Use effective communication methods required to provide safe, effective, and compassionate care for the adult medical-surgical patient. (3) Distinguish reliable health and disease information resources in making clinical decisions for adult medical-surgical patients.	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; 04/16/22

Instructional Module 1 Learning Guide
Calculations

Topic: Introduction to Dose