

**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.  
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](http://www.ISMP.org) & [www.JointCommission.org](http://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)

<ul style="list-style-type: none"> <li>Dosage Calculation Packet(s)</li> </ul>	
<b>Texas DECs</b>	<b>QSEN Competencies</b>
<b>Knowledge:</b> I.A. 1, 2, 3, 4  <b>Clinical Judgments &amp; Behaviors:</b> I.A. 1, 2, 3 I.B. 5a, 5c, 6	Patient Centered Care Teamwork & Collaboration EBP Safety
<b>IM Student Learning Outcomes</b>	<b>NCLEX Test Plan</b>
(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.	<b>Pharmacological and Parental Therapies:</b> Dosage Calculations  <b>Safe &amp; Effective Care Environment:</b> Accident-Error-Injury Prevention
<b>Concepts</b>	<b>Faculty</b>
Clinical Judgment; Patient Education; Professionalism; Evidenced-Based Practice; Health Policy; Safety	<i>D. Dutton, MSN, RNC-OB</i>
<b>Date originated: 6-15</b>	<b>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</b>

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*CSON Learning Guide (adopted 5-2015 by Faculty vote) – REV 9-2016*