

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

Learning Goals/Outcomes

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

- Accurately calculate medication doses utilizing one of the following methods: fractional equation method (ratio and proportion), basic formula method (desired/have) or dimensional analysis
- Specifically interpret and convert values between and among systems used in medication administration: the Metric system and “household” measurements, including weights and measurements within those systems
- Identify and accurately calculate drug dosages based on weight
- Accurately interpret, perform, and transcribe answers to calculations based on the content of drug labels, drug orders, the "7 + Rights", and industry accepted abbreviations
- Apply Joint Commission (JC) and Institute of Safe Medication Practice (ISMP) principles to the communication about and administration of medications, including, but not limited to, the current JC “Do Not Use” list of abbreviations

Pre-Class Preparation

Required:

- Review PPT slides

Complete

- The online assignments listed in Learning Activities have a course due date that is documented in the Lesson information. 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
- Supplementary math practice on LMS and following each unit exam

Learning Activities

Classroom Activities:

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

Laboratory/Clinical:

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

Online:

- Go to My Evolve
Select Drug Calculations Online
Next select Course Content
Select and complete the following modules according to the attachment
Module 1: Systems Used for Drug Administration
Module 2: Conversions within Metric & Household Systems
Module 6: Methods of Calculation
~~–Module 7: Methods of Calculation for Individualized Drug Dosing Not required~~

Evaluation Methods

- Simulation Performances per Rubric
- Medication Math Exams (4)

Texas DECs	QSEN Competencies
Knowledge: IA:1-3; IB: 1,2; IIA: 1; IID: 1,4; IIF:1-3; IIIA: 1-6; IIID: 1; IVB: 1-2 Clinical Judgments & Behaviors: 1A 1-3; IB 2,5,6; IIA 1; IID 1,2; IIF: 1-6; IIIA: 2-5; IIID: 1-3; IVB: 1-3	Patient Centered Care; Teamwork & Collaboration; EBP; Safety
IM Student Learning Outcomes	NCLEX Test Plan
1, 2, 3, 5, 7, 8	Safe & Effective Care: Management of Care Health Promotion & Maintenance Physiological Integrity: Pharmacological Therapies, Reduction of Risk
Concepts	Faculty
Clinical Judgment; Patient Education; Professionalism; Evidenced-Based Practice; Health Policy; Safety	<i>D. Dutton, MSN, RNC-OB</i>
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