DOSAGE CALCULATIONS

- Practice essential skills
- Build competence and confidence
- Prevent medication errors
- Ensure patient safety
Alleviate student fears. Build competence. Ensure patient safety. Dosage Calc 360° is the complete online program that guides students through learning, practicing, and assessing the knowledge they need to calculate drug dosages safely and accurately. It works with students every step of the way to conquer their fears, build their confidence, and provide the experience they need to be successful.

Dosage Calc 360°
Sandra Luz Martinez de Castillo, RN, MA, EdD
Maryanne Werner-McCuish, RN, MS, MNP


Dosage Calc 360° helps students build competence and ensure patient safety by providing a platform for practice and assessment. The program is designed to make dosage calculations easier and less intimidating. With easy-to-master modules, videos, and interactive graphics, students can practice their new skills and continuously assess their strengths and weaknesses to identify areas where they need to focus their study time. Dosage Calc 360° is data-driven, allowing instructors to monitor student performance and intervene when needed.

Instructor Experience
DATA-DRIVEN PATH TO SUCCESS

- Class management tools make it easy to set up your classes.
- Easy-to-use dashboards display participation and average time spent in the program as well as scores on module reviews and tests, by student and by class.
- Real-time analytics identify areas in which students are struggling and enable you to intervene when needed.

Flexibility for traditional & distance education

In-person | Online | Hybrid | HyFlex


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Student Experience

LEARN delivers must-know content in student-friendly modules

- Illustrated, in-depth readings and interactive graphics meet the needs of multiple learning styles.
- Narrated, full-color videos walk students through each of the methods step by step and enhance understanding of complex concepts.

Student-friendly, interactive learning

- Content is divided into easy-to-master sections, while audio pronunciations, learning tips, and interactive graphics meet the needs of different learning styles.

PRACTICE gives students the experience they need to master the content

- Exercises and NCLEX®-style practice questions build calculation skills and reinforce learning, including fill-in-the-blank, multiple choice, hot spot, ordered response, and select-all-that-apply (SATA) questions as well as syringe pull exercises.
- Color coding of the four dosage calculation methods lets students quickly identify the method that works best for them.
- Detailed rationales and examples for all practice problems make concepts clear.

From practice to mastery

- From a wealth of fill-in-the-blank questions to syringe pull exercises, a variety of practice problems tests students’ understanding of the content they’ve just read.

ASSESS lets students track their performance

- An assessment at the end of each module tests students’ comprehension and synthesis of the content across the topics.
- Students’ strengths and weaknesses are continuously monitored and identified.
- Students can return to review any module for additional practice and exam prep.

Learning personalized

- From their personal dashboards, students can see their completed and upcoming assignments; review their personal and class metrics; and read and respond to Discussion Board posts.

Progress reports at a glance

- After completing each module, a module assessment evaluates students’ knowledge of each topic in that module. A snapshot of their progress through each assignment makes it easy for them to identify areas for additional study with a thumbs-up/thumbs-down approach.
Basic Math
• Introduction to Fractions
• Calculation with Fractions
• Introduction to Decimals
• Calculations with Decimals
Safety in Medication Administration
• Preventing Medication Errors
• Medication-Administration Process
• Drug Labels
Systems of Measurement
• The Metric System
• The Household System
Linear Ratio and Proportion
• Introduction to Linear Ratio and Proportion
• Calculating Using Linear Ratio and Proportion
Fractional Ratio and Proportion
• Introduction to Fractional Ratio and Proportion
• Calculating Using Fractional Ratio and Proportion
Dimensional Analysis
• Introduction to Dimensional Analysis
• Calculating Using Dimensional Analysis
Formula Method
• Introduction to Formula Method
• Calculating Using Formula Method
Calculating Oral Medication Doses
• Understanding Types of Medications and Measuring Devices
• Oral Dose Calculations
Syringes and Needles
• Introduction to Syringes
• Types of Syringes and Needle Lengths and Gauges
• Calculating Parenteral Medication Dosages
• Understanding Parenteral Medications
• Parenteral Dose Calculations
Preparing Powdered Parenteral Medications
• Introduction to Powdered Parenteral Medications
• Reconstitution Problems
• Administering Insulin
• Understanding IV Infusion
• Calculating Flow Rate
• Calculating Infusion and Completion Time
• Monitoring IV Therapy
Administering Direct IV Medications
• Introduction to Direct IV Therapy
• Dividing Direct IV Medications
• Calculating Rate of Administration for Direct IV Medications
Verifying Safe Dose
• Introduction to Safe Dose
• Weight-Based Dosing
• Verifying Safe Dose by BSA
• Titration of Intravenous Medications
• Introduction to Titration
• Solving for Infusion Rate of Titrated Medications
• Calculating Intake and Output
• Calculating Oral Intake
• Calculating and Recording Output
• Calculating Parenteral Intake
• Calculating for Special Populations
• General Considerations for the Older Adult Population
• Enteral Nutrition
• Considerations for Pediatric Patients
• IV Fluid Replacement Therapy
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**Dosage Calc 360°**  |  CONTENTS • MODULES/TOPICS

Interested in learning more about Dosage Calc 360°? Contact us with questions, request access or schedule a personal walkthrough by visiting www.FADavis.com/DosageCalc.
Calculating Drug Dosages
A Patient-Safe Approach to Nursing and Math, 2nd Edition

Sandra Luz Martínez de Castillo, RN, MA, EdD
Maryanne Werner-McCullough, RN, MS, MNP

MATH MADE EASY
Help your students conquer their fears and understand the most common math concepts used in nursing practice today.

Consistent color coding helps your students identify the method that works best for them.

Math Made Easy
Help your students conquer their fears and understand the most common math concepts used in nursing practice today.

Color-coded, step-by-step guidance shows students how to accurately calculate drug dosages using all four methods. They begin with a basic math assessment and then explore in-depth coverage of complex topics, including intake and output, parenteral intake, NG tube feeding strength, and labeling IVs.

New! Up-to-date drug labels for reference and skills testing.

New! Content on weight-based dosing in IV heparin administration and a new formula for calculating pediatric fluid replacement.

Expanded! More scenarios added to enhance critical-thinking and clinical judgment skills, including multidisciplinary communication and common errors with each type of calculation.

Instructor
• eBook
• Instructor’s Guide
• Test Bank
• PowerPoint Presentations

Students
• Basic Math Tutorial
• Calculation tools
• Interactive Syringe Exercises
• Podcasts
• Safe Dosage Resources
• Enhanced Answer Key

PREVENT MEDICATION ERRORS
✓ The most recent National Patient Safety Goals and The Joint Commission (TJC) standards
✓ Drug information from Davis’s Drug Guide for Nurses®
✓ Thousands of practice questions with rationales and step-by-step equation setups

“The text Calculating Drug Dosages is very helpful in teaching dimensional analysis. I was able to help 4th semester students with their clinical drug test achieve 100% with the examples in the book! I would recommend this text for beginning and advanced RN students.”

—Pamela Vogel, RN, MSN, WHNP, Fresno City College

ALL 4 METHODS IN A COLOR-CODED APPROACH

MD order:
Cortef tabs 10 mg PO Daily
Pharmacy sends:
Cortef 5 mg tablet

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Consistent color coding helps your students identify the method that works best for them.

Detailed photographs and illustrations with precise descriptions show your students how to analyze equipment and understand medication labels.

Edits page | 1335 Illustrations | Softcover | 2021

Pb 25 mg S. mL

Figure 6: Mixing directions, storage, and labeling information.
A DIMENSIONAL ANALYSIS APPROACH

Dimensional Analysis
Calculating Dosages Safely, 2nd Edition
Tracy Horntvedt, RN; MSN, BA

Teach your students a method of problem solving that organizes data in a manner that is easy to understand and apply. They’ll learn how to calculate both simple and complex dosage problems with consistency and accuracy and reduce medication errors with simple safety mechanisms.

• "The 4 Cs" learning model (compute, convert, conceptualize, and critically evaluate) to emphasize patient safety and reinforce safe practices
• Over 1,000 practice problems throughout the book including...
  • Basic skills pre-test
  • End-of-section practice tests in each chapter
  • End-of-unit assessment tests
  • End-of-book post-test
• Real-life scenarios illustrating how to apply concepts to practice
• "Note" and "Alert" boxes that highlight potential safety issues to keep in mind when calculating math problems
• A glossary of key terms at the beginning of each chapter
• 18 "Speed Challenge" chapter quizzes online to increase speed and accuracy

A REVIEW OF BASIC MATH SKILLS

Put your students on the path to conquering the math skills essential for nursing success and reducing the anxieties math often induces! Step by step, skill by skill students progress from simple to complex calculations, building their proficiencies and testing them along the way. It’s perfect for course review and quick reference.

• "Basic Math Interactive Exercises" online offer additional practice.
• Pretests in each chapter help students determine where to focus their review time.
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Ready to make school more affordable for your students?

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