BOOK REVIEWS

JUDITH A REES AND IAN SMITH.
Pharmaceutical Calculations Workbook. London,
UK, Pharmaceutical Press; 2006. 230 pp (cover),
ISBN 0-85369-02-0.

Reviewed by: Ann Zweber, BPharm
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“More calculations problems!” Anyone who has taught pharmacy calculations has heard this request repeatedly. *Pharmaceutical Calculations Workbook* provides a source of practice problems for students desiring more preparation, as well as providing a self-assessment resource to assure basic pharmacy calculations skills. It is a collection of calculations: a “Can you. . .”, rather than a “How to. . .” text.

The workbook follows a logical progression through everyday pharmacy calculations. It begins with simple numbers and ratios concepts, establishing a systematic thought process for performing calculations. Metric units, conversions, dilutions, formulations, dosing, density, displacement, molecular weights, and parenteral solutions follow. The authors have focused on routine calculations, and have avoided trying to be inclusive of all imaginable pharmacy calculations. Cockcroft and Gault, Henderson-Hasselbalch, and other advanced or formula-based calculations are not included.

Each section of practice calculations is prefaced with a list of learning objectives. Calculations are presented efficiently, often in a table or series format to give the learner several opportunities to solve the given types of problems. Each set of straightforward calculations is followed by a set of descriptive, practical problems. The workbook provides a useful balance for the reader to practice the manipulations, then apply the skills to “real world” situations.

Published in the United Kingdom, *Pharmaceutical Calculations Workbook* contains some abbreviations and terms that may be unfamiliar to many practitioners in the United States. Abbreviations for dosing regimens, such as bd, tds, qds, and od, are not typically used in the United States. An appendix of abbreviations is not included in this text, nor is it found in the companion instructional book, *Introduction to Pharmaceutical Calculations*, by the same authors. In contrast, other units of measurement typically used in the United States, such as teaspoon, tablespoon, and milliequivalents are absent in this text.

Most students entering a doctor of pharmacy program should be able to complete the workbook with little or no additional instruction. As schools move more towards

competency assessments for basic calculations, this workbook could be a useful resource for practicing foundational skills. Many technician programs may also find the workbook to be a valuable supplement. More practice problems, indeed!

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LOURDES M. CUELLAR, DIANE B. GINSBURG, EDITORS. *Preceptor's Handbook for Pharmacists*. Bethesda, MD: American Society of Health-System Pharmacists; 2005. 339 pages, \$31.00 (paperback), ISBN 1-58528-116-6.

Reviewed By: Rondall E. Allen, PharmD

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The *Preceptor's Handbook for Pharmacists* is a comprehensive text that provides a general overview of experiential education. The goal of the book is to provide pharmacists with the requisite tools to develop an introductory or advanced practice rotation. To this end, Cuellar and Ginsburg have assembled a group of distinguished pharmacist preceptors who share their unique perspectives on a variety of topics such as developing lifelong learning habits, liability issues for preceptors, motivating students, continuous quality improvement, and cultural competence. The handbook not only serves as a guide for the novice preceptor, but it also offers new and innovative ideas for the seasoned preceptor as well.

The book is divided into 11 chapters that progress the reader from origins of precepting and mentoring to goals of experiential training, law and ethics in experiential training, the role of the preceptor, developing partnerships with schools, and professionalism. Each chapter is further divided into well-organized sections that provide additional insight on the main topic.

Most of the sections begin with clear objectives, contain easy-to-read tables and figures, and are well referenced. In an effort to summarize the key concepts of each section, the authors have included a Preceptor Pearls tab. This feature is very useful because it not only summarizes the key concepts, but it also provides guidance on how to incorporate the recommendations into practice.

The appendix includes a recent copy of the educational outcomes developed by the Center for the Advancement of Pharmaceutical Education Advisory Panel. These outcomes can serve as a foundation or a guide as the

preceptor and the school partner to develop outcome statements for the experiential program.

The handbook has several key strengths. First, the text contains several sections that expound on the necessary skills to become an effective preceptor. The authors intimate that effective preceptors are leaders with good interpersonal skills, who are willing to engage students in active learning. Effective preceptors should also possess great communication skills that involve asking good questions and listening to the student. The second key strength is the section on how to balance precepting responsibilities while meeting employment requirements. In this section the author provides practical advice on how to integrate the pharmacy student into a busy practice. Lastly, the text provides an excellent review of how to deal with difficult students and situations. This section is very important because it accentuates the need for the site and the school to work together to ensure a positive learning experience for the student.

The only limitation of the handbook is that some of the key concepts such as, formative evaluation, are not fully covered in one section, but are discussed throughout the book in various chapters. This may be a concern for new preceptors who are trying to gain a basic understanding of the concept before applying it in different settings. Perhaps in the next edition a section could be devoted to student evaluations that fully addresses formative and summative evaluations.

In summary, the *Preceptor's Handbook for Pharmacists* is an invaluable resource for training pharmacists who have a sincere desire to precept and mentor student pharmacists. It provides sound instruction on how to design, implement, coordinate, and evaluate an effective experiential program in most practice settings. This book would be appropriate for any college of pharmacy that offers workshops for their preceptors and would be a useful addition to the personal library of the new and most experienced preceptor.

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ALEXANDER T FLORENCE, DAVID ATTWOOD. *Physicochemical Principles of Pharmacy*, 4th edition, 2006. Pharmaceutical Press, London, UK, 512 pp, US \$59.95 (paperback), ISBN 0-85369-608-X.

Reviewed By: Roseane M. Santos, PhD, MS
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Physicochemical Principles of Pharmacy provides basic information on physicochemical properties of drugs in order to allow the reader to understand, recognize, and predict the behavior of the drugs before and during their transit through the body.

Each chapter is introduced with a brief description of the extent of the material covered, emphasizing the importance of its content in relation to pharmaceutical sciences – a clear and nicely written invitation to go over the material. Whenever equations are described within the context of each chapter, examples with practical calculations are given in order to familiarize the reader with the use of the parameters and their units. Graphs and tables are used to help explain the dynamic of the processes and to compare those processes across different chemical groups of compounds. Also, the main concepts and equations are highlighted throughout the chapters with the aid of small summary boxes.

At the end of the chapters the authors finalize with a recap of the most important concepts in a bullet-summary format followed by a list of review articles published on the different covered matters under references.

This book brings together the importance of the physicochemical principles in terms of formulation and quality control, and the final goal of pharmacy assistance, which is to ensure the delivery of the drug to its site of action and promote a safe and desired response. This book provides the student with all the main tools necessary to understand the broad scope of the pharmacy and pharmaceutical sciences. I highly recommend this book as a good addition to a pharmacy library and should be considered as a textbook for advanced students in pharmacy practice and as a reference book for undergraduate courses in the pharmaceutical sciences field.

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Economic Evaluation in US Health Care Principal and Application. Pizz; Lofland: 177 pages (hardcover).

Reviewed by: Hua Chen, PhD

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The subject of pharmacoeconomics is increasingly being added to pharmacy curriculum. However, health economic books that target on health care professionals are very limited. Pizz and Lofland's *Economic Evaluation*

in US Health Care Principal and Application is a text designed specifically for professional/ resident level education. While this easy-to-read text will be extremely useful in the classroom to help students develop basic cost-effectiveness concepts, it is also a good introductory text for pharmacists or health care practitioners who wish to gain some understanding in health economics.

The 176-page text may be categorized into 3 sections. The first section comprehensively addresses the health economic concepts and methodologies. This section consists of 5 chapters that detail (1) the current and historical context of economic evaluation of health care interventions in the United States; (2) methods of measuring economic outcomes; (3) health-related quality of life concepts and measurements (4) health-related productivity; and (5) risk adjustment and study design in observational studies. The second section of the book consists of 2 chapters that provide informative examples of the application of economic evaluation in pharmaceutical industry and formulary decision making. The third section consists of 2 chapters covering the perspectives of US regulators (eg, Centers for Medicare and Medicaid Services, Food and Drug Administration) on the current and future role of economic evaluation in the United States.

This book has several key strengths. First, different from many books full of economic jargons, this text is unique in conveying the health economic concepts, principles, and methods in plain language that can be easily understood by pharmacists and health practitioners with-

out any economic backgrounds. Second, this book especially meets the needs of pharmacists by including examples of the applications of economic evaluation in determining the value of pharmaceuticals. The cases presented in chapter 6 and chapter 7 could easily prove useful when the pharmacy graduates and residents arrive in the workplace such as in the pharmaceutical industry, hospital, or health insurance industry. Third, this text discusses an important topic that is usually neglected by health economic books regarding how the political and ethical issues have been affected economic evaluation in the United States. At last, this book facilitates both teaching and learning by providing plenty of cases, discussion questions, and suggested readings.

Economic Evaluation in US Health Care Principal and Application provides a comprehensive and current overview of the health economic evaluations in the US health care system with particular emphasis on the evaluation on pharmaceuticals. This book is an excellent choice for an introductory course in pharmacoeconomics or as a source for foundation information for pharmacy practitioners who are considering a career related to pharmacy benefit management. The publication of this book is an important addition to the current available texts on health economics.

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