

Pediatric PHARMACOTHERAPY *Self Assessment*

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DEDICATION

In loving memory of Tom Bergen, whose life was made possible by treatment for a pediatric condition. He used his life to inspire us all to believe that anything is possible.

Sandra Benavides

To my family and friends, for their continued support and unconditional love—thank you for reminding me of what is important in life. To Milap, Varsha, Bob, Marie, and Sandra—words cannot fully express my gratitude for your friendship, guidance, and inspiration. To my colleagues near and far—it is truly an honor to serve with you, as advocates for our patients and families. To my students and residents—thank you for the privilege to share my passion for pediatrics with you and your ongoing thirst for knowledge.

Hanna Phan

To all those who continue to help me grow—my family, mentors, fellows, students, collaborators, patients, colleagues, and friends.

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PREFACE

Pharmacists providing pediatric patient care require unique knowledge and skills. Pharmacists must evaluate patient-specific data such as clinical presentation, medical history, and laboratory or diagnostic tests to formulate an appropriate therapeutic plan. Of special importance in pediatric patients are age, physiological development, body-weight specific dose requirements, dosage form availability, medication administration, and caregiver education in the clinical decision making process. *Pediatric Pharmacotherapy Self Assessment* is designed to provide patient-specific, case-based learning opportunities for students as well as new and advanced practitioners. The casebook will afford opportunities to apply pharmacotherapy knowledge in the care of neonates, infants, children, and adolescents. An assortment of patient cases, ranging from acute to chronic pediatric conditions, with varying complexities have been included with corresponding self-assessment questions and answers.

Each case was designed to include patient-specific data for evaluation to formulate specific recommendations for all aspects of care including assessing current treatment, identifying an alternative treatment when necessary, developing goals and clinical outcomes, devising monitoring parameters, and selecting the most pertinent and appropriate patient/caregiver education. The intent of each case is to develop and hone skills in identifying subjective and objective data to support a specific diagnosis and critically evaluate current pharmacotherapy, including identification of medication-related problems to self-assess knowledge or skills. The self-assessment cases may be useful prior to or during didactic or pediatric-specific elective courses or an introductory/advanced pharmacy practice experience (IPPE/APPE) involving pediatric patients. This casebook's varying levels of difficulty allow further self-assessment after attainment of further knowledge and skills.

The first chapter provides a detailed discussion of the clinical assessment of pediatric patients highlighting differences in this population. The chapter includes examples of methods toward patient-specific data collection, evaluation, and development of a therapeutic plan. Beginning with Section II, clinicians and educators have contributed a variety of cases to simulate real-world scenarios often encountered in practice. Cases are designed as beginner (level 1), intermediate (level 2), or advanced (level 3), which allows the casebook to be a resource for students, residents, and practitioners. Commonly used medical terminology and abbreviations are provided throughout the book to familiarize the reader about the practice of pediatrics. Because multiple approaches are possible, experienced practitioners have provided treatment approaches based on primary literature, guidelines, and clinical experience. A bibliography is included with each case to direct the reader to additional resources for each topic. The casebook has incorporated many unique characteristics to consider when caring for pediatric patients. Additionally, most cases incorporate a medication-related problem for the reader to identify and formulate a solution. The intent of the editors and contributors is to provide opportunities for self-assessment through practice and knowledge application, thereby contributing to the development of practitioners to offer the best possible care for children.

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The editors cannot express enough gratitude to the contributors involved in *Pediatric Pharmacotherapy Self Assessment*. They developed practical cases from professional experience with pediatric-specific considerations important in the care of neonates, infants, children, and adolescents. The editors appreciate the time they took to develop the cases, self-assessment questions and answers. We know these will be a tremendous asset for students and practitioners in developing skills necessary to care for pediatric patients.

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Most importantly, we would like to acknowledge the contributions of all practitioners in pediatrics. Those who came before us have forged a path for the specialty recognition of pediatric pharmacotherapy. The current practitioners continue to expand the areas of practice and impact health outcomes in children. Those to come will carry our banner to continue the work and progress that has been accomplished to date. We hope this casebook contributes to the development of your knowledge and skills in pediatrics for the evolution of pediatric pharmacotherapy.