Pediatric Pharmacotherapy
Self Assessment

Sandra Benavides, PharmD, FPPAG
Associate Professor
Department of Pharmacy Practice
Nova Southeastern University College of Pharmacy
Davie, Florida

Hanna Phan, PharmD, BCPS
Assistant Professor
Departments of Pharmacy Practice & Science and Pediatrics
The University of Arizona—Colleges of Pharmacy and Medicine
The University of Arizona Medical Center—Diamond Children’s
Tucson, Arizona

Milap C. Nahata, PharmD, MS
Director, Institute of Therapeutic Innovations and Outcomes
Professor Emeritus of Pharmacy, Pediatrics and Internal Medicine
The Ohio State University
Columbus, Ohio
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.

_Milap C. Nahata_
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CONTRIBUTORS

Mary A. Babico, PharmD
Staff II Pharmacist, Pediatrics
UC Davis Medical Center and Children’s Hospital
Sacramento, California

Sandra Benavides, PharmD, FPPAG
Associate Professor
Department of Pharmacy Practice
Nova Southeastern University College of Pharmacy
Davie, Florida

Joshua Caballero, PharmD, BCPP
Associate Professor
Department of Pharmacy Practice
Nova Southeastern University College of Pharmacy
Davie, Florida

Dominic Chan, PharmD, BCPS
Infectious Diseases Pharmacist
Assistant Clinical Professor
Skaggs School of Pharmacy and Pharmaceutical Sciences
University of California San Diego
San Francisco, California

Julianna Crain, PharmD
PGY-1 Pediatric Pharmacy Resident
All Children’s Hospital
Johns Hopkins Medicine
Saint Petersburg, Florida

Nicole M. Even, PharmD, BCPS
Clinical Staff Pharmacist, Pediatrics
PGY-2 Residency Program Coordinator, Pediatric Pharmacy
The University of Arizona Medical Center—Diamond Children’s
Tucson, Arizona

Heather L. Girand, PharmD
Professor, Pharmacy Practice
Ferris State University College of Pharmacy
Kalamazoo, Michigan

Tracy M. Hagemann, PharmD, FCCP, FPPAG
Professor
Department of Clinical & Administrative Sciences
College of Pharmacy
The University of Oklahoma Health Sciences Center
Oklahoma City, Oklahoma

Kristen Lamberjack, PharmD, BCACP
PGY-1 Residency Director
Nationwide Children’s Hospital
Columbus, Ohio

Manar O. Lashkar, PharmD, BCPS
Instructor of Clinical Pharmacy, Faculty of Pharmacy
King Abdulaziz University
Jeddah, Saudi Arabia
Postdoctoral Fellow, Pediatric Pharmacotherapy
The Ohio State University—College of Pharmacy
Columbus, Ohio

Jennifer Le, PharmD, MAS, BCPS-ID
Associate Professor of Clinical Pharmacy
Skaggs School of Pharmacy and Pharmaceutical Sciences
University of California San Diego
San Diego, California

Shirin Madzhidova, PharmD
Pediatric Pharmacotherapy Fellow
Department of Pharmacy Practice
Nova Southeastern University College of Pharmacy
Davie, Florida

Brady S. Moffett, PharmD, MPH
Clinical Pharmacy Specialist, Heart Center
Department of Pharmacy
Texas Children’s Hospital
Houston, Texas
CONTRIBUTORS

Milap C. Nahata, PharmD, MS
Director, Institute of Therapeutic Innovations and Outcomes
Professor Emeritus of Pharmacy, Pediatrics and Internal Medicine
The Ohio State University
Columbus, Ohio

Christine Prusa, PharmD
PGY-1 Resident
Nationwide Children’s Hospital
Columbus, Ohio

Jose A. Rey, PharmD, BCPP
Associate Professor
Department of Pharmacy Practice
Nova Southeastern University College of Pharmacy
Davie, Florida

Jaime W. Riskin, PharmD, BCPS
Clinical Assistant Professor
Department of Pharmacy Practice
Nova Southeastern University College of Pharmacy
Davie, Florida

Hanna Phan, PharmD, BCPS
Assistant Professor
Departments of Pharmacy Practice & Science and Pediatrics
The University of Arizona—Colleges of Pharmacy and Medicine
Clinical Pharmacy Specialist, Pediatric Pulmonary Medicine
PGY-2 Residency Program Director, Pediatric Pharmacy
The University of Arizona Medical Center—Diamond Children’s
Tucson, Arizona

Jeremy S. Stultz, PharmD
Assistant Professor
Department of Pharmacotherapy & Outcomes Science
Virginia Commonwealth University School of Pharmacy
Richmond, Virginia

Jennifer E. Thomas, PharmD
Neurocognitive Fellow
Department of Pharmacy Practice
Nova Southeastern University College of Pharmacy
Davie, Florida

Jose Valdes, PharmD
PGY-2, Psychiatric Pharmacy Practice Resident
Department of Pharmacy Practice
Nova Southeastern University College of Pharmacy
Davie, Florida

Mary Worthington, PharmD, BCPS
Professor
McWhorter School of Pharmacy
Samford University
Birmingham, Alabama
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.

*Sandra Benavides*

*Hanna Phan*

*Milap C. Nahata*
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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.