

Nephrology/Geriatrics II Panel

Series Editors:

Betty J. Dong, Pharm.D., FCCP, FASHP, FAPHA, AAHIVP

*Professor of Clinical Pharmacy and Family
and Community Medicine*
University of California Schools of Pharmacy and Medicine
San Francisco, California

David P. Elliott, Pharm.D., FCCP, FASCP, AGSF, BCGP

Professor and Associate Chair for the Charleston Campus
Department of Clinical Pharmacy
West Virginia University School of Pharmacy
Charleston, West Virginia

Faculty Panel Chair:

Emily R. Hajjar, Pharm.D., MS, BCPS, BCACP, BCGP

Associate Professor
Jefferson College of Pharmacy
Thomas Jefferson University
Philadelphia, Pennsylvania

Renal Replacement Therapy in Chronic Kidney Disease

Authors

Wasim S. El Nekidy, Pharm.D., BCPS, BCACP

Senior Pharmacotherapy Specialist-Nephrology
Department of Pharmacy Services
Cleveland Clinic Abu Dhabi
Abu Dhabi, United Arab Emirates

Islam M. Ghazi, Pharm.D., MSc, BCPS, BCACP

Assistant Professor
Philadelphia College of Pharmacy
Department of Pharmacy Practice/Pharmacy Administration
Philadelphia College of Pharmacy
University of the Sciences
Philadelphia, Pennsylvania

Reviewers

Rebecca A. Maxson, Pharm.D., BCPS

Assistant Clinical Professor
Department of Pharmacy Practice
Auburn University Harrison School of Pharmacy
Birmingham, Alabama

Bedrija Nikocecic, Pharm.D., BCACP

Assistant Professor of Clinical Sciences
Roosevelt University College of Pharmacy
Schaumburg, Illinois

Drew Armstrong, Pharm.D., BCACP, AAHIVP

HIV Clinical Pharmacist
Department of Pharmacy
Regional One Health
Memphis, Tennessee

Polypharmacy

Authors

Emily P. Peron, Pharm.D., MS, FASCP, BCPS, BCGP

Associate Professor
Pharmacotherapy and Outcomes Science
Virginia Commonwealth University
Richmond, Virginia

Kristin M. Zimmerman, Pharm.D., BCGP, BCACP

Associate Professor
Pharmacotherapy and Outcomes Science
Virginia Commonwealth University
Richmond, Virginia

Reviewers

Shelly L. Gray, Pharm.D., MS

*Shirley & Herb Bridge Endowed Professor
Director*
Plein Center for Geriatric Pharmacy Research, Education
and Outreach
Department of Pharmacy
University of Washington School of Pharmacy
Seattle, Washington

Su Wen Lim, M.Clin Pharm, BCOP, BCPS, BCACP, BCGP

Principal Clinical Pharmacist
Department of Oncology Pharmacy
National Cancer Centre Singapore
Republic of Singapore

Kelly N. Hecht, Pharm.D., BCPS

Ambulatory Care Clinical Pharmacy Specialist
Internal and Family Medicine Division
Ambulatory Care Clinical Pharmacist Program Manager
Quality and Performance Improvement Department
IHA
Ann Arbor, Michigan

Laura A. Hart, Pharm.D., MS, BCPS, BCGP

Geriatric Pharmacy Fellow
Department of Pharmacy
University of Washington School of Pharmacy
Seattle, Washington

The American College of Clinical Pharmacy and the authors thank the following individuals for their careful review of the Nephrology/Geriatrics II chapters:

H. Gwen Bartlett, Pharm.D., BCPS, BCCCP

Assistant Professor of Pharmacy Practice
School of Pharmacy
Husson University
Bangor, Maine

Mary Wun-Len Lee, Pharm.D., FCCP, BCPS

Vice President and Chief Academic Officer
Pharmacy and Optometry Education
Professor of Pharmacy Practice
Midwestern University
Chicago College of Pharmacy
Downers Grove, Illinois

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

Consultancies: Amy Barton Pai (AMAG); Crystal Burkhardt (State of Kansas); Stephanie Crist (Centene Corporate); Christine Eisenhower (Program of All-Inclusive Care for the Elderly of Rhode Island); John P. Knorr (Veloxis Pharmaceuticals, PA Chronic Renal Disease Program RDAC); Jennifer G. Naples (Pharmacy Quality Alliance); Emily Peron (ACCP Geriatrics PRN); Bedrija Nikocecic (Illinois Healthcare and Family Services Drug Utilization Review Board)

Stock Ownership: William D. Meyers (Merck Pharmaceuticals, Mylan Pharmaceuticals); Kristin Zimmerman (Biogen, Inc)

Royalties:

Grants: Crystal Burkhardt (Kansas City Area Life Sciences Institute); Stephanie Crist (Barnes-Jewish Hospital Foundation, St. Louis College of Pharmacy Office for Research, Cumberland Pharmaceuticals); Christine Eisenhower (Geriatrics Workforce Enhancement Program); Rebecca A. Maxson (Biggio Center, Auburn University); Wasim El Nekidy (Kidney Foundation of Canada); Alice Gahbauer (Vince Isnardi Pathway Grant); Islam Ghazi (American Society of Microbiology); John P. Knorr (Veloxis Pharmaceuticals); Heather A. Sakely (Atlantic Philanthropies, John A. Hartford Foundation)

Honoraria: Amy Barton Pai (Vifor); Crystal Burkhardt (American Academy of Home Care Medicine, American Society of Health-System Pharmacists); John P. Knorr (Relypsa Inc.); Emily Peron (American Society of Consultant Pharmacists); Maria Pruchnicki (Ohio Pharmacists Association); Kristin Zimmerman (ASCP)

Other:

Nothing to disclose: Drew Landon Armstrong; Diane M. Erdman; Jeffrey Freund; Brianna Glynn-Servedio; Shelly L. Gray; Laura A. Hart; Kelly N. Hecht; Elizabeth A. Koczera; Su Wen Lim; Rebecca A. Maxson; Margaret A. Miklich; Polina Plotkin; Jordan Sedlacek; Nicole M. Sifontis; Katherine Vogel Anderson

ROLE OF BPS: The Board of Pharmacy Specialties (BPS) is an autonomous division of the American Pharmacists Association (APhA). To maintain its strict, independent standards for certification, BPS does NOT endorse or provide review information, preparatory courses, or study guides for Board Certification Examinations. The Board, through its specialty councils, is responsible for specialty examination content, administration, scoring, and all other aspects of its certification programs. BPS is totally separate and distinct from ACCP. ACSAP has been approved by BPS for use in BCACP recertification. Information about the BPS recertification process is available [online](#).

Questions regarding BCACP recertification should be directed to:

[Board of Pharmacy Specialties](#)

2215 Constitution Avenue NW

Washington, DC 20037

(202) 429-7591