Geriatric Pharmacy Specialty Review Course and Practice Exam

** Materials for this course will be released on 06/26/2019 **

Geriatric Pharmacy Specialty Review Course & Practice Exam: PACKAGE (No Recert Credit (Cert # L199149)

Teaser: This online Specialty Review Course will help you prepare for the Board of Pharmacy Specialty (BPS) examination.

ACPE Numbers: Various – see listing below
Pre-Sale Date: 05/08/2019
Content Release Date: 06/26/2019
Expiration Date: 4/14/2020
Activity Type: Application-based
CE Credits: 23.00 (ACPE)
Activity Fee: $425 (ASHP member); $625 (non-member)

Accreditation for Pharmacists
The American Society of Health-System Pharmacists and American College of Clinical Pharmacy are accredited by the Accreditation Council for Pharmacy Education as providers of continuing pharmacy education.

These activities were recorded during a live educational event on May 2-4, 2019 in Minneapolis, Minnesota. Learners who claimed credit for the live activities should not claim credit for these home study activities.

Target Audience
These activities are intended for pharmacists who are seeking to update their knowledge and skills commensurate with a board certification examination in the areas listed below.

Activity Overview
This online course provides a robust preparatory curriculum for the pharmacy professional preparing for the Board of Pharmacy Specialties (BPS) Geriatric Specialty Certification Examination. Designed based on the domains, tasks, and knowledge statements developed by the BPS for the certification examination, this course will help you prepare for the exam by identifying areas needed for in-depth review of geriatric issues.

This course is NOT intended for those obtaining recertification credit. To earn recertification credit, please see courses here: [http://elearning.ashp.org/catalog/geriatric-recert](http://elearning.ashp.org/catalog/geriatric-recert).
This course consists of 12 activities (see table below) and provides up to 23.00 hours of continuing pharmacy education credit.

<table>
<thead>
<tr>
<th>Learning Activity</th>
<th>ACPE Number</th>
<th>Credit Hours</th>
<th>ACPE Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Complex Case: Inpatient to Family Medicine Clinic</td>
<td>0204-9999-19-900-H01-P</td>
<td>2.00</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Complex Case: Ambulatory-Family Medicine Clinic</td>
<td>0204-9999-19-901-H01-P</td>
<td>2.00</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Complex Case: Ambulatory-Geriatric Clinic</td>
<td>0204-9999-19-911-H01-P</td>
<td>2.00</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Complex Case: Inpatient-Surgery to Skilled Nursing Facility</td>
<td>0204-9999-19-903-H01-P</td>
<td>2.00</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Complex Case: Skilled Nursing Care</td>
<td>0204-9999-19-904-H01-P</td>
<td>2.00</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Statistics, Evidence-based Medicine, and Research Design</td>
<td>0204-9999-19-908-H04-P</td>
<td>2.00</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Complex Case: Long-term Care</td>
<td>0204-9999-19-905-H01-P</td>
<td>2.00</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Geriatric Practice Administration</td>
<td>0204-9999-19-909-H04-P</td>
<td>2.00</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Complex Case: Assisted Living</td>
<td>0204-9999-19-910-H01-P</td>
<td>2.00</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Principles of Aging</td>
<td>0204-9999-19-902-H04-P</td>
<td>1.00</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Hospice/Palliative Care</td>
<td>0204-9999-19-906-H01-P</td>
<td>2.50</td>
<td>5/2/22</td>
</tr>
<tr>
<td>Geriatric Pharmacy Review and Recertification Course: Antimicrobial Stewardship - Considerations and Limitations in Geriatric Care Settings</td>
<td>0204-9999-19-907-H04-P</td>
<td>1.50</td>
<td>5/2/22</td>
</tr>
</tbody>
</table>

**Learning Objectives**

After participating in this CPE activity, leaners should be able to:

**Complex Case: Inpatient to Family Medicine Clinic**

ACPE # 0204-9999-19-900-L01-P

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  - Atrial fibrillation
  - Post-myocardial infarction
  - Heart failure
  - Hypertension
  - Insomnia
  - Urinary retention
  - Dry eyes and mouth
  - **Clostridium difficile** infection
Define the continuum of care available to geriatric patients, such as community resources, home care, assisted living facilities, nursing facilities, sub-acute care facilities, hospice care, and hospitals.

- Identify potentially inappropriate medications (PIM) for older adults.
- Identify medications that contribute to geriatric syndromes or conditions (e.g., falls, cognitive impairment).
- Assess biomedical information considering study design and methodology, statistical analysis, and significance of reported data and conclusions.

**Complex Case: Ambulatory - Family Medicine Clinic**

ACPE # 0204-9999-19-901-L01-P

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  - Atrial fibrillation, post-MI
  - Heart failure
  - Hypothyroidism
  - Diabetes mellitus, new onset
  - Benign prostatic hyperplasia
  - Hypotension
  - Gastroesophageal reflux disease
  - Frailty
- Assess financial/reimbursement issues (e.g., formularies, insurance coverage) when making therapeutic recommendations.
- Describe steps to assist a patient with payment issues for medications, medication therapy management services, and medical equipment.
- Describe strategies to assess caregiver knowledge and expectations regarding advanced age and disease on health risks, needs, and treatment of health conditions.
- Evaluate the appropriateness of care plans and services based on older adults’ and caregivers’ changes in age, health status, and function; assist caregivers in altering plans and actions as needed.
- Evaluate adherence and provide strategies for improvement to older adults, their caregivers and the interprofessional care team.
- Collaborate with older adults, their caregivers, and the healthcare team during care planning and implementation.
- Recognize the need for continuity of treatment and communication across the spectrum of services and during transitions between care settings.
- Select methods to facilitate medication reconciliation during transitions of care.
- Apply outcomes of investigations to optimize care of older adults.

**Complex Case: Ambulatory - Geriatric Clinic**

ACPE # 0204-9999-19-911-L01-P

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  - Chronic obstructive pulmonary disease
  - Osteoarthritis
  - Depression
  - Urinary tract infection
  - Glaucoma
  - Herpes Zoster
- Evaluate strategies to promote evidence-based approaches for screening, immunizations, health promotion, and disease prevention for older adults.
• Assess the patient’s complete medication list, including prescription and over-the-counter medications, and complementary and alternative therapies.
• Identify the components of an interprofessional, comprehensive geriatric assessment and the roles individual disciplines play in conducting and interpreting a comprehensive geriatric assessment.
• Assess specific risks to older adult safety, including falls, abuse, physical/chemical restraints, and other environmental hazards.
• Recognize the role of advanced directives and living wills, do not resuscitate, power of attorney, and other substitute decision-makers documents in medication use decisions.

Complex Case: Inpatient - Surgery to Skilled Nursing Facility
ACPE# 0204-9999-19-903-L01-P
• Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
• Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  o Delirium
  o Deep vein thrombosis prophylaxis
  o Pneumonia
  o Anxiety
  o Pain management
  o Fluid & electrolyte disorder
  o Falls
• Define the continuum of care available to geriatric patients, such as community resources, home care, assisted living facilities, nursing facilities, sub-acute care facilities, hospice care, and hospitals.
• Recognize the need for continuity of treatment and communication across the spectrum of services and during transitions between care settings.
• Identify potential hazards of hospitalization for older adults, including immobility, delirium, medication side effects, malnutrition, pressure ulcers, procedures, and hospital acquired infections.
• Assess specific risks to older adult safety, including falls, abuse, physical/chemical restraints, and other environmental hazards.
• Recognize iatrogenic conditions (e.g., healthcare associated infections, falls, pressure ulcers, medication-induced).

Complex Case: Skilled Nursing Care
ACPE # 0204-9999-19-904-L01-P
• Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
• Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  o Anemia
  o Anxiety
  o Deep vein thrombosis prophylaxis
  o Osteoporosis
  o Pain management
  o SIADH
  o Falls
  o Constipation
• Recognize the need for continuity of treatment and communication across the spectrum of services and during transitions between care settings.
• Identify potential medication-related causes of declining physical and cognitive function.
• Select methods to facilitate medication reconciliation during transitions of care.
• Evaluate the relevance and limitations of biomedical information for the care of older adults.
• Apply outcomes of investigations to optimize care of older adults.
• Develop strategies to prevent or resolve iatrogenic conditions.
• Recognize elder abuse/neglect (e.g., physical, psychological, and financial).
• Identify resources to assist in prevention, reporting, and treatment of elder abuse/neglect.

Statistics, Evidence-Based Medicine and Research Design
ACPE # 0204-9999-19-908-L04-P
• Given an excerpt from a study, determine quality and appropriateness of the excerpt, with specific attention to:
  o study design,
  o statistical analysis,
  o internal/external validity
  o source of bias/confounders
  o quality of conclusions,
  o interpretation of graphs from given studies.
• Determine clinical and statistical significance based on specified excerpts of studies.
• Determine why a statistical test is appropriate or not appropriate, given the sample distribution, data type, and study design. Interpret statistical significance for results from commonly used statistical tests.
• Describe the strengths and limitations of different types of measures of central tendency (mean, median, and mode) and data spread (standard deviation, standard error of the mean, range, and interquartile range).
• Define and evaluate odds ratio, risk/incidence rate, relative risk, number needed to treat, number needed to harm, and other risk estimates.
• Determine whether the study applies to a specified patient population.

Complex Case: Long-term Care
ACPE # 0204-9999-19-905-L01-P
• Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
• Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  o Alzheimer’s with behaviors
  o Hypertension
  o T2DM
  o Geriatric syndromes – malnutrition/failure to thrive/weight loss
  o Renal dysfunction/CKD
• Recognize ethical issues that arise during therapy with individuals who have diminished decision-making capacity.
• Identify potential medication-related causes of declining physical and cognitive function.
• Identify clinical situations where life expectancy, functional status, patient preference or goals of care should override standard recommendations for screening/treatment.
• Prioritize care needs considering severity of illness, patient preference, quality of life, and time to benefit.
• Advocate interventions and behaviors that promote physical and mental health, nutrition, function, safety, social interactions, independence, and quality of life to older adults and their caregivers.
• Assess specific risks to older adult safety, including falls, abuse, physical/chemical restraints, and other environmental hazards.
• Apply the findings of research to the care of older adults.
• Evaluate the relevancy of clinical practice guidelines and standards of care for older adults.
Geriatric Practice Administration
ACPE # 0204-9999-19-909-L04-P

- Describe the application and integration of evidence-based geriatric literature into institutional guidelines and processes.
- Develop a plan to monitor and evaluate compliance with, and impact of, policies and guidelines (e.g., institutional, evidence based).
- Select quality assurance methods, metrics, and improvement activities, including needs assessment techniques, aimed at enhancing the safety and effectiveness of medication-use processes in the geriatric settings.
- Evaluate regulatory/IRB requirements relative to conducting geriatric research.
- Design and evaluate education programs/materials/tools for geriatric patient populations.
- Assess formulary management protocols in geriatric practice settings.
- Develop and apply systems to identify risk factors and prevention for adverse drug events/medication incidents/errors in the geriatric patient population.
- Develop and apply protocols for managing high-risk medications in the elderly.
- Determine factors that enhance the education and training of geriatric pharmacists available in published documents from relevant professional societies (e.g., ASHP, ACCP, SCP, AGS etc.).

Complex Case: Assisted Living
ACPE # 0204-9999-19-910-L01-P

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  - Urinary incontinence
  - Dysphagia
  - Stroke
  - Neuropathic pain
  - Gout
  - Seizure disorder
  - Substance abuse
- Evaluate self-care capacity, including medication self-administration.
- Recognize signs of substance and medication misuse/abuse in older adults.
- Assess the impact of social behaviors, including use of tobacco, caffeine, alcohol, and illicit drugs.
- Recognize need for referral of patients to other healthcare professionals.
- Assess verbal and nonverbal communication strategies to overcome potential sensory, language, and cognitive limitations in older adults.
- Evaluate adherence and provide strategies for improvement to older adults, their caregivers and the interprofessional team.

Principles of Aging
ACPE # 0204-9999-19-902-L04-P

- Summarize the spectrum of aging and physiological heterogeneity of older adults.
- Apply the knowledge of physiologic changes associated with aging to the clinical use of medications (e.g., pharmacokinetics and pharmacodynamics).
- Utilize knowledge of social and financial issues when making therapeutic recommendations for geriatric patients.
Complex Case: Hospice/Palliative Care
ACPE # 0204-9999-19-906-L01-P

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  - Parkinson’s disease
  - Pressure ulcers
  - Coronary artery disease
  - Peripheral vascular disease
  - Hyperlipidemia
  - Pain management
- Prioritize care needs considering severity of illness, patient preference, quality of life, and time to benefit.
- Recognize iatrogenic conditions (e.g., healthcare associated infections, falls, pressure ulcers, medication-induced conditions).
- Define and apply cultural competency concepts (e.g., ethnic/racial, religion, spiritual, age-related, language) and guidelines to healthcare decisions.
- Identify clinical situations where life expectancy, functional status, patient preference or goals of care should override standard recommendations for screening/treatment.
- Recognize need for referral of patients to other healthcare professionals.
- Recognize the altered benefit-risk ratio of medications at the end of life.
- Discuss end of life issues as they relate to medication appropriateness.

Antimicrobial Stewardship - Considerations and Limitations in Geriatric Care Settings
ACPE # 0204-9999-19-907-L04-P

- Describe regulations and government guidance statements calling for use of antimicrobial stewardship in geriatric care settings.
- Apply current literature describing antimicrobial stewardship techniques in the geriatric care setting.
- Discuss the implications of infectious disease guidelines for use of antimicrobial agents in the geriatric patient population.
- Recommend appropriate antibiotic therapy for a geriatric patient, taking into consideration infectious-diseases management principles and patient-specific variables.
- Make appropriate antimicrobial-monitoring recommendations for a geriatric patient based on patient-specific variables and antimicrobial stewardship principles.
- Develop methods for monitoring trends and identifying opportunities for improvement in antimicrobial use within a geriatric healthcare facility.

Faculty

Trista Askins-Bailey, Pharm.D., BCGP, BCPS
Assistant Professor
Texas Tech University Health Sciences Center - School of Pharmacy
Abilene, Texas

Amie Blaszczyk, Pharm.D., BCGP, BCPS, FASCP*
Associate Professor & Division Head – Geriatrics
Texas Tech University HSC School of Pharmacy
Dallas, Texas
Advanced Healthcare Solutions, LLC
Arlington, Texas
Dana Carroll, Pharm.D., BCGP, BCPS, CDE*
Clinical Professor, Auburn University
Auburn, Alabama
University of Alabama Family Medicine
Tuscaloosa, Alabama

Kalin Clifford, Pharm.D., BCGP, BCPS
Assistant Professor, Geriatrics & Pediatrics Division, Department of Pharmacy Practice
Texas Tech University Health Sciences Center - School of Pharmacy
Clinical Pharmacy Specialist, Geriatrics
North Texas VA Healthcare System
Dallas, Texas

Emily Ellsworth, Pharm.D., BCGP
Home-Based Primary Care Clinical Pharmacy Specialist
Edward Hines Jr. VA Hospital
Hines, Illinois

Carol Fox, Pharm.D., BCGP
Associate Professor, Pharmacotherapeutics and Clinical Research
University of South Florida College of Pharmacy
Tampa, Florida

Emily Frederick, Pharm.D., BCPS
Assistant Professor
Sullivan University College of Pharmacy and Health Sciences
Louisville, Kentucky

Lisa C. Hutchison, Pharm.D., M.P.H., BCGP, BCPS, FCCP
Professor, Department of Pharmacy Practice
University of Arkansas for Medical Sciences
Little Rock, Arkansas

Jill R. Johnson, Pharm.D., M.H.A., BCGP, BCPS
Clinical Pharmacy Specialist Veterans Affairs Medical Center
Memphis, Tennessee

Heather L. Ourth, Pharm.D., BCGP, BCPS
National Program Manager: Clinical Pharmacy Practice Program and Outcomes Assessment
Pharmacy Benefits Management Services 10P4P, Department of Veterans Affairs
Washington, D.C.

Maria Shin, Pharm.D., BCGP, BCPS*
Assistant Professor of Clinical and Administrative Sciences
Sullivan University College of Pharmacy
Louisville, Kentucky

* Content Matter Experts
Geriatric Pharmacy Specialty Review
Course and Practice Exam

Reviewers
Maria Shin, Pharm.D., BCGP, BCPS
Dana Carroll, Pharm.D., BCGP, BCPS, CDE
Amie Blaszczyk, Pharm.D., BCGP, BCPS, FASCP

Disclosures
In accordance with the Accreditation Council for Continuing Medical Education’s Standards for Commercial Support and the Accreditation Council for Pharmacy Education’s Standards for Commercial Support, American College of Clinical Pharmacy and American Society of Health-System Pharmacists require that all individuals involved in the development of activity content disclose their relevant financial relationships. A person has a relevant financial relationship if the individual or her spouse/partner has a financial relationship (e.g. employee, consultant, research grant recipient, speakers bureau, or stockholder) in any amount occurring the in the last 12 months with a commercial interest whose products or series may be discussed in the educational activity content over which the individual has control. The existence of these relationships is provided for the information of participants and should not be assumed to have an adverse impact on the content.

All faculty and planners for ASHP education activities are qualified and selected by ASHP and ACCP and required to disclose any relevant financial relationships with commercial interests. ASHP identifies and resolves conflicts of interest prior to an individual’s participation in development of content for an educational activity. Anyone who refuses to disclose relevant financial relationships must be disqualified from any involvement with a continuing pharmacy education activity.

All planners, presenters, and reviewers of this session report no financial relationships relevant to this activity.

Methods and CE Requirements
Activities can be completed in any order. Each activity consists of audio, video, and/or PDFs and evaluations. Learners must review all content and complete the evaluations to receive continuing pharmacy education credit for each activity.

Follow the prompts to claim, view, or print the statement of credit within 60 days after completing the activity.

System Technical Requirements
Learning activities are delivered via your Web browser and Acrobat PDF. For all activities you should have a basic comfort level using a computer and navigating web sites.

View the minimum technical and system requirements for learning activities.

Development
These activities were developed by ASHP and ACCP.

Copyright © 2019, American Society of Health-System Pharmacists and American College of Clinical Pharmacy, Inc. All rights reserved.