

**Materials for this course will release 03/30/2022**

---

**Geriatric Pharmacy Specialty Review Course, Workbook Chapters, and PRACTICE EXAM: (No Recert Credit)  
(Cert # L229042)**

**Teaser:** This online Specialty Review Course, Workbook, and Practice Exam package will help you prepare for the Board of Pharmacy Specialty (BPS) examination. With this course, get comprehensive, practical guidance, with a variety of complex cases, including references for further study.

**Tag:** Certifications; Geriatrics

---



**ACPE Numbers:** Various – see listing below

**Pre-Sale Date:** 03/16/2022

**Content Release Date:** 03/30/2022

**Expiration Date:** 02/14/2023

**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 (ASHP) and the American College of Clinical Pharmacy (ACCP) are accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

**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 by:

- Reviewing pertinent clinical topics and practice skills
- Providing exam practice questions
- Listing valuable references for further study

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>

These activities are part of the ASHP and ACCP professional development program.

---

**Materials for this course will release 03/30/2022**

### **REVIEW COURSE**

This course consists of 12 activities (see table below) and provides up to 23 hours of continuing pharmacy education credit. The Review Course includes case-based presentations for application to real-life scenarios, a practice exam along with correct answers, and links to the reference sources, and domains, tasks, and knowledge statements. To help you further prepare, this package includes a compilation of practice questions in the same format and rigor to help you prepare for the BPS Specialty Examination.

| Learning Activity  | ACPE Number            | Credit Hours | ACPE Expiration Date |
|--|------------------------|--------------|----------------------|
| Complex Case: Inpatient to Family Medicine Clinic  | 0204-9999-22-900-H01-P | 2.00         | 03/30/2025           |
| Complex Case: Ambulatory - Family Medicine Clinic  | 0204-9999-22-901-H01-P | 2.00         | 03/30/2025           |
| Complex Case: Ambulatory - Geriatric Clinic  | 0204-9999-22-902-H01-P | 2.00         | 03/30/2025           |
| Complex Case: Inpatient-Surgery to Skilled Nursing Facility  | 0204-9999-22-903-H01-P | 2.00         | 03/30/2025           |
| Complex Case: Skilled Nursing Care   | 0204-9999-22-904-H01-P | 2.00         | 03/30/2025           |
| Statistics, Evidence-based Medicine, and Research Design   | 0204-9999-22-905-H04-P | 2.00         | 03/30/2025           |
| Complex Case: Long-term Care   | 0204-9999-22-906-H01-P | 2.00         | 03/30/2025           |
| Geriatric Practice Administration  | 0204-9999-22-907-H04-P | 2.00         | 03/30/2025           |
| Complex Case: Assisted Living  | 0204-9999-22-908-H01-P | 2.00         | 03/30/2025           |
| Principles of Aging  | 0204-9999-22-909-H04-P | 1.25         | 03/30/2025           |
| Complex Case: Hospice/Palliative Care  | 0204-9999-22-910-H01-P | 2.25         | 03/30/2025           |
| Infectious Disease Considerations and Antimicrobial Stewardship Principles in Geriatric Patients and Care Settings | 0204-9999-22-911-H04-P | 1.50         | 03/30/2025           |

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

ACPE #: 0204-9999-22-900-H01-P

- Interpret results of screening and assessments in 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
  - Hyperlipidemia
  - Peripheral vascular disease
  - Insomnia
  - Drug induced urinary retention
  - Dry eyes
  - C. difficile infection
- Identify potentially inappropriate medications (PIM) for older adults, as well as medications that contribute to geriatric syndromes or conditions (e.g., falls, cognitive impairment).

Materials for this course will release 03/30/2022

---

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

ACPE #: 0204-9999-22-901-H01-P

- Interpret results of screening and assessments in 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
  - Coronary artery disease
  - Hypothyroidism
  - Diabetes mellitus, new onset
  - Benign prostatic hyperplasia
  - Hypotension
  - Gastroesophageal reflux disease
- Evaluate financial/reimbursement issues (e.g., formularies, insurance coverage) when making therapeutic recommendations.
- Describe Explain 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.
- Apply strategies for improvement of adherence in older adults, their caregivers and the interprofessional care team.
- Demonstrate Give examples of how to collaborate with older adults, their caregivers, and the healthcare team during care planning and implementation.
- Explain the need for continuity of treatment and communication across the spectrum of services and during transitions between care settings.
- Apply outcomes of investigations to optimize care of older adults.

**Complex Case: Ambulatory - Geriatric Clinic**

ACPE #: 0204-9999-22-902-H01-P

- Interpret the results of screening and assessments in 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 a patient 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.
- Explain the role of advanced directives and living wills, do not resuscitate, power of attorney, and other substitute decision-makers documents in medication use decisions.

Materials for this course will release 03/30/2022

---

**Complex Case: Inpatient-Surgery to Skilled Nursing Facility**

ACPE #: 0204-9999-22-903-H01-P

- Interpret results of screening and assessments in the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  - Delirium
  - Deep vein thrombosis prophylaxis
  - Pneumonia
  - Anxiety
  - Pain management (acute)
  - Fluid & electrolyte disorder
  - Falls
- Define Describe 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.
- Explain 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 Identify iatrogenic conditions (e.g., healthcare associated infections, falls, pressure ulcers, medication-induced).

**Complex Case: Skilled Nursing Care**

ACPE #: 0204-9999-22-904-H01-P

- Interpret results of screening and assessments in the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  - Anemia
  - Anxiety
  - Deep vein thrombosis prophylaxis
  - Osteoporosis
  - Pain management
  - SIADH
  - Falls
  - Constipation
- Explain 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.
- Summarize 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 Identify elder abuse/neglect (e.g., physical, psychological, and financial).
- Identify resources to assist in prevention, reporting, and treatment of elder abuse/neglect.

Materials for this course will release 03/30/2022

---

### Statistics, Evidence-based Medicine, and Research Design

ACPE #: 0204-9999-22-905-H04-P

Given an excerpt from a study:

- Evaluate quality and appropriateness of the excerpt, with specific attention to:
  - study design,
  - statistical analysis,
  - internal/external validity
  - source of bias/confounders
  - quality of conclusions,
  - interpretation of graphs.
- Explain why a statistical test is appropriate or not appropriate, based on the sample distribution, data type, and study design.
- Interpret clinical and statistical significance for results from commonly used statistical tests.
- Explain 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).
- Evaluate odds ratio, risk/incidence rate, relative risk, number needed to treat, number needed to harm, and other risk estimates.
- Assess whether the study applies to a specified patient population.

### Complex Case: Long-term Care

ACPE #: 0204-9999-22-906-H01-P

- Interpret results of screening and assessments in the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
  - Alzheimer's with behaviors
  - Hypertension
  - T2DM
  - Geriatric syndromes – malnutrition/failure to thrive/weight loss
  - Renal dysfunction/CKD
- Summarize 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.
- Summarize care need priorities considering severity of illness, patient preference, quality of life, and time to benefit.
- Select 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.
- Describe the medication utilization process in the long-term care setting as it relates to the consultant pharmacist.

Materials for this course will release 03/30/2022

---

### Geriatric Practice Administration

ACPE #: 0204-9999-22-907-H04-P

- Describe 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.
- Explain regulatory/IRB requirements relative to conducting geriatric research.
- Describe regulatory requirements and organizational structure of long term care facilities as it relates to the consultant pharmacist.
- Design education programs/materials/tools for geriatric patient populations.
- Assess formulary management protocols in geriatric practice settings.
- Develop systems to identify risk factors and prevention for adverse drug events/medication incidents/errors in the geriatric patient population.
- Apply protocols for managing high-risk medications in the elderly older adults.
- Identify 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 #: 0204-9999-22-908-H01-P

- Interpret results of screening and assessments in 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.
- Identify 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.
- Identify need for referral of patients to other healthcare professionals.
- Apply verbal and nonverbal communication strategies to overcome potential sensory, language, and cognitive limitations in older adults.
- Evaluate improvement strategies for adherence in older adults, their caregivers and the interprofessional team.

### Principles of Aging

ACPE #: 0204-9999-22-909-H04-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).
- Describe social and financial issues that impact therapeutic recommendations for geriatric patients.
- Select the appropriate treatment and monitoring for a patient with frailty.

Materials for this course will release 03/30/2022

---

**Complex Case: Hospice/Palliative Care**

ACPE #: 0204-9999-22-910-H01-P

- Interpret results of screening and assessments in 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
  - Dry mouth
  - Pain management
- Summarize care need priorities considering severity of illness, patient preference, quality of life, and time to benefit.
- Identify iatrogenic conditions (e.g., healthcare associated infections, falls, pressure ulcers, medication-induced conditions).
- 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.
- Identify need for referral of patients to other healthcare professionals.
- Explain the altered benefit-risk ratio of medications at the end of life.
- Discuss end of life issues as they relate to medication appropriateness.

**Infectious Disease Considerations and Antimicrobial Stewardship Principles in Geriatric Patients and Care Settings**

ACPE #: 0204-9999-22-911-H04-P

- Describe regulations and government guidance statements calling for use of antimicrobial stewardship in geriatric care settings.
- Summarize the implications of infectious disease guidelines for use of antimicrobial agents in the geriatric patient population.
- Select appropriate antibiotic/antifungal antimicrobial therapy for a geriatric patient, taking into consideration infectious-diseases management principles and patient-specific variables.
- Recommend appropriate antimicrobial/antifungal-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 geriatric care settings.

**Faculty**

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

Dana Carroll, Pharm.D., BCGP, BCPS, CDES\*  
Clinical Professor  
Auburn University Harrison School of Pharmacy  
University of Alabama Family Medicine  
Auburn, Alabama

Amie Taggart Blaszczyk, Pharm.D., BCGP, BCPS, FASCP\*  
Professor and Division Head – Geriatrics  
Texas Tech University Health Sciences Center School of  
Pharmacy  
Dallas, Texas

Kalin Clifford, Pharm.D., BCGP, BCPS  
Associate Professor, Geriatrics & Pediatrics Division,  
Department of Pharmacy Practice  
Texas Tech University Health Sciences Center - School of  
Pharmacy

Materials for this course will release 03/30/2022

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

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

Emily Frederick, Pharm.D., BCPS  
Associate Professor and Vice Chair  
Department of Pharmacy Practice  
Sullivan University College of Pharmacy and Health  
Sciences  
Louisville, Kentucky

Lisa C. Hutchison, Pharm.D., M.P.H., BCGP, BCPS, FCCP  
Professor and Vice Chair  
University of Arkansas for Medical Sciences  
Little Rock, Arkansas

Jill R. Johnson, Pharm.D., M.H.A., BCGP, BCPS  
Clinical Pharmacy Specialist  
Orlando VA Healthcare System  
Orlando, Florida

Heather L. Ourth, Pharm.D., BCPS, BCGP, FASHP  
Assistant Chief Consultant, Clinical Pharmacy Practice  
Program and Outcomes Assessment  
Pharmacy Benefits Management (PBM) Service 12 PBM,  
Clinical Pharmacy Practice Office  
Department of Veterans Affairs  
Washington, D.C.

Maria Shin, Pharm.D., BCGP, BCPS\*  
Clinical Pharmacy Specialist in Internal Medicine  
Robley Rex Louisville Veterans Affairs Medical Center  
Louisville, Kentucky

*\*Content matter experts*

#### Reviewers

Holly L. Byrnes, Pharm D., BCPS  
Susan R. Dombrowski, M.S., R.Ph.

#### 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, ASHP and ACCP requires 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 his or her spouse/partner has a financial relationship (e.g. employee, consultant, research grant recipient, speakers bureau, or stockholder) in any amount occurring in the last 12 months with a commercial interest whose products or services 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 and ACCP education activities are qualified and selected by ASHP and ACCP and required to disclose any relevant financial relationships with commercial interests. ASHP and ACCP 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 other planners, presenters, reviewers, ASHP and ACCP staff and others with an opportunity to control content report no financial relationships relevant to this activity.

**Materials for this course will release 03/30/2022**

---

#### **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.

*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.*