

Materials for this course will release 09/21/2022

Pediatric Pharmacy Specialty Review Course for Recertification, Core Therapeutic Modules + RECERT EXAMS Package (Cert # L229268)

Teaser: This online course will help you earn BCPPS recertification credit. With this course, get comprehensive, practical guidance, with a variety of complex cases, including references for further study.

Tag: Certifications; Pediatric



ACPE Numbers: Various – see listing below

Pre-Sale Date: 08/31/2022

Content Release Date: 09/21/2022

Expiration Date: 09/19/2023

Activity Type: Application-based

CE Credits: 19.5 (BPS and ACPE) contact hours

Activity Fee: \$475 (ASHP member); \$675 (non-member)

Accreditation for Pharmacists



The American Society of Health-System Pharmacists is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

Target Audience

These recertification activities are intended for board certified pharmacists seeking to update their knowledge and skills in pediatric pharmacy.

Activity Overview

This course is intended for BCPPSs in need of recertification credit and is designed based on the content outline developed by the Board of Pharmacy Specialties (BPS) to provide an overview of recent standards and guidelines that specialists should be familiar with in practice. The course uses a case-based approach to discuss patient care issues. In this series, faculty will:

- Review pertinent clinical topics and practice skills
- List valuable resources for further self-study

This online course consists of 14 activities (see tables below) and provides up to 19.5 contact hours of continuing pharmacy education credit and/or recertification credit.

Recertification Credit*

Board certified pharmacists are eligible to receive up to 19.5 contact hours of recertification credit for completing this course. To earn recertification credit, learners must review the course content and successfully complete the online assessments by the deadline. Only completed assessments will be eligible for credit; no partial or incomplete assessments will be processed. You are allowed only one attempt to successfully complete this assessment.

This course is not intended for those preparing to take the BPS Pediatric Pharmacy Specialty Examination for Certification. To prepare for the examination, please see courses here: <http://elearning.ashp.org/catalog/pediatric-review>

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These activities are part of the ASHP professional development program for BCPPS recertification approved by the BPS.

** Please note: Review Course for Recertification may only be completed for recertification credit up to two times, in nonconsecutive years, during the 7-year recertification cycle.*

Learning Activity	ACPE Number	Contact Hours
Complex Case: Deep Vein Thrombosis and Metabolic Syndrome	0204-0000-22-620-H01-P	1.50 ACPE
Complex Case: Diabetic Ketoacidosis	0204-0000-22-621-H01-P	1.50 ACPE
Complex Case: Acute Asthma	0204-0000-22-622-H01-P	1.50 ACPE
Complex Case: Pneumonia and Septic Shock	0204-0000-22-623-H01-P	1.50 ACPE
Recertification Assessment Group 1 (79% passing score required)	6.0 BPS	
Complex Case: Acute Lymphoblastic Leukemia with Tumor Lysis Syndrome	0204-0000-22-624-H01-P	1.50 ACPE
Regulatory and IRB Considerations	0204-0000-22-625-H03-P	0.50 ACPE
Complex Case: Sickle Cell Disease with Vaso-Occlusive Crisis	0204-0000-22-626-H01-P	1.50 ACPE
Medication Error and Practice Management	0204-0000-22-627-H05-P	1.50 ACPE
Recertification Assessment Group 2 (81% passing score required)	5.0 BPS	
Complex Case: Neonatal Sepsis	0204-0000-22-628-H01-P	1.50 ACPE
Complex Case: Status Epilepticus and Cardiopulmonary Resuscitation	0204-0000-22-629-H01-P	1.50 ACPE
Statistics, Evidence-Based Medicine, and Clinical Trial Design	0204-0000-21-985-H04-P	2.00 ACPE
Recertification Assessment Group 3 (73% passing score required)	5.0 BPS	

Learning Objectives

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

Complex Case: Deep Vein Thrombosis and Metabolic Syndrome

ACPE #: 0204-0000-22-620-H01-P

- Develop appropriate treatment and monitoring plans for a complex pediatric patient with multiple conditions, including deep vein thrombosis, type 2 diabetes mellitus, dyslipidemia, and hypertension.
- Identify resources and treatment options for sexually transmitted infections.
- Select appropriate monitoring considerations of anticoagulation medications.
- Recognize the impact of pharmacogenomic differences on warfarin therapy.

Complex Case: Diabetic Ketoacidosis

ACPE #: 0204-0000-22-621-H01-P

- Develop appropriate treatment and monitoring plans for a complex pediatric patient with multiple conditions, including diabetic ketoacidosis, type 1 diabetes mellitus, and urinary tract infection.
- Calculate maintenance and replacement fluid requirements and urine output.
- Identify factors affecting medication adherence.
- Recommend appropriate dosing of insulin based on patient age and weight.
- Select an effective method of delivery for insulin.

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Complex Case: Acute Asthma

ACPE #: 0204-0000-22-622-H01-P

- Develop appropriate treatment and monitoring plans for a complex pediatric patient with multiple conditions, including acute and chronic asthma, ADHD, acne and GERD.
- Evaluate essential components of social history, including smoke exposure and home environment.
- Formulate a plan to address barriers to patient education and adherence, including age, language, cultural considerations, and inhaler technique.
- Describe the impact of age on classification and management of asthma.
- Assess available resources to improve access to medications, including patient assistance programs.

Complex Case: Pneumonia and Septic Shock

ACPE #: 0204-0000-22-623-H01-P

- Develop appropriate treatment and monitoring plans for a complex pediatric patient with multiple conditions, including pneumonia, septic shock, and acute kidney injury.
- Calculate creatinine clearance, fluid requirements, and urine output in pediatric patients.
- Apply scoring systems to assess pediatric patients.
- Select appropriate dosing for medications based on renal dysfunction and/or replacement modalities.
- Differentiate vital signs between stable and critically-ill pediatric patients.

Complex Case: Acute Lymphoblastic Leukemia with Tumor Lysis Syndrome

ACPE #: 0204-0000-22-624-H01-P

- Develop appropriate treatment and monitoring plans for a complex pediatric patient with multiple conditions, including acute lymphoblastic leukemia (ALL), tumor lysis syndrome, febrile neutropenia, invasive aspergillosis infection, and Clostridium difficile infection.
- Select appropriate medication dose modifications related to hepatic impairment.

Regulatory and IRB Considerations

ACPE #: 0204-0000-22-625-H03-P

- Identify appropriate off-label use of medications in the pediatric population.
- Recognize IRB requirements for documentation of clinical studies
- List characteristics of patients who require informed assent/consent.
- Recognize federal legislation relevant to the use of medications in pediatric patients.

Complex Case: Sickle Cell Disease with Vaso-Occlusive Crisis

ACPE #: 0204-0000-22-626-H01-P

- Develop appropriate treatment and monitoring plans for a complex pediatric patient with multiple conditions, including a vaso-occlusive crisis, cellulitis, constipation, and need for immunizations.
- Select most appropriate patient controlled analgesia regimen based on vaso-occlusive crisis severity.
- Apply pharmacodynamic principles when selecting appropriate antibiotic regimens.
- Identify required immunizations for adolescents, including patients with risk factors for vaccine-preventable diseases.

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Medication Error and Practice Management

ACPE #: 0204-0000-22-627-H05-P

- Incorporate position statements, white papers, national guidelines from recognized regulatory organizations into institutional policies and procedures related to:
- Medication reconciliation
- Appropriate drug preparation and delivery (e.g., extemporaneous compounding and standardized concentrations)
- Selection of appropriate equipment/technology and decision support.
- Adverse drug event monitoring and reporting, or
- Metrics for evaluating quality of pediatric pharmacy services.

Complex Case: Neonatal Sepsis

ACPE #: 0204-0000-22-628-H01-P

- Develop appropriate treatment and monitoring plans for a complex neonatal patient with multiple conditions, including patent ductus arteriosus, apnea of prematurity, early and late onset sepsis, and necrotizing enterocolitis.
- Evaluate the clinical and therapeutic implications of placental transfer of medications.
- Identify age-specific pharmacokinetic differences among neonates, infants, children, and adolescents.
- Apply FDA alerts for adverse drug events and drug-drug interactions into clinical practice.
- Identify characteristics that facilitate transfer of medications into the breast milk.

Complex Case: Status Epilepticus and Cardiopulmonary Resuscitation

ACPE #: 0204-0000-22-629-H01-P

- Develop appropriate treatment and monitoring plans for a complex pediatric patient with multiple conditions and needs, including status epilepticus, cardiopulmonary resuscitation, and sedation/analgesia.
- Differentiate treatment options in cardiopulmonary arrest based upon patient presentation.
- Select the appropriate dose and route of administration for medications.
- Assess the need and processes for reporting adverse drug events.
- Identify cultural considerations related to treatment and counseling of the pediatric population.
- Distinguish between the four preceptor roles.

Statistics, Evidence-Based Medicine, and Clinical Trial Design

ACPE #: 0204-0000-21-985-H04-P

- Interpret biomedical literature with regard to study design, methodology, statistical analysis, and significance and applicability of reported data and conclusions.
- Explain the use of evidence-based treatment guidelines and protocols.
- Summarize key points from the most current pharmacy practice literature.

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CORE THERAPEUTIC MODULES

The Core Therapeutic Modules Review Package consists of 3 activities in which faculty review clinical topics and practice skills using a case-based approach. The activities are designed to assist the learner in identifying knowledge gaps in preparation for a pharmacy specialty board examination. In addition to a recorded presentation, each activity includes links to resources for further self-study and a practice test developed in the same format and rigor as the specialty exam.

Learning Activity	ACPE Number	Contact Hours
Select Topics in Pediatric Cardiovascular Disease	0204-0000-22-630-H01-P	1.00 ACPE
Select Topics in Pediatric Infectious Diseases Part 1	0204-0000-22-631-H01-P	1.00 ACPE
Select Topics in Pediatric Neurology Part 2 - Focus on Seizures	0204-0000-22-632-H01-P	1.00 ACPE
Recertification Assessment (TBD% passing score required)	3.0 BPS	

Learning Objectives

After participating in these CPE activities, learners should be able to:

Select Topics in Pediatric Cardiovascular Disease

ACPE #: 0204-0000-22-630-H01-P

- Interpret signs, symptoms and diagnostic tests in a pediatric patient with congenital heart disease (specifically VSD, ASD, TOF, coarctation of aorta, and hypoplastic left heart) or Kawasaki disease
Identify drug-related problems, including drug interactions.
- Develop the most appropriate therapy and monitoring plans based on patient-specific information and the most current guidelines.
- Use PALS to determine appropriate therapy for bradycardia and tachycardia.

Select Topics in Pediatric Infectious Diseases Part 1

ACPE #: 0204-0000-22-631-H01-P

- Develop treatment and monitoring plans based on patient-specific information and the most current guidelines for a well-appearing febrile infant.
- Develop treatment and monitoring plans based on patient-specific information and the most current guidelines for a pediatric patient with otitis media
- Develop treatment and monitoring plans based on patient-specific information and the most current guidelines for a pediatric patient with bronchiolitis
- Develop treatment and monitoring plans based on patient-specific information and the most current guidelines for a pediatric patient with tuberculosis
- Develop treatment and monitoring plans based on patient-specific information and the most current guidelines for a pediatric patient with meningitis
- Develop treatment and monitoring plans based on patient-specific information and the most current guidelines for a pediatric patient with pneumonia

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Select Topics in Pediatric Neurology Part 2 - Focus on Seizures

ACPE #: 0204-0000-22-632-H01-P

- Develop treatment and monitoring plans based on patient-specific information and the most current guidelines for a pediatric patient with febrile seizures, neonatal seizures, infantile spasms, absence seizures, and Lennox-Gastaut syndrome.
- Evaluate patients for drug-related problems.
- Identify appropriate modifications of patient-specific treatment plans based on follow up assessment.

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Disclosures

In accordance with our accreditor's Standards of Integrity and Independence in Accredited Continuing Education, ASHP requires that all individuals in control of content disclose all financial relationships with ineligible companies. An individual has a relevant financial relationship if they have had a financial relationship with an ineligible company in any dollar amount in the past 24 months and the educational content that the individual controls is related to the business lines or products of the ineligible company.

An ineligible company is any entity producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on, patients. The presence or absence of relevant financial relationships will be disclosed to the activity audience.

No one in control of the content of this activity has a relevant financial relationship (RFR) with an ineligible company.

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.
