

**** Materials for this course will be release on 09/23/2020 ****

**Pediatric Pharmacy Specialty Review Course for Recertification, Core Therapeutic Modules + RECERT EXAMS Package
(Cert # L209285)**

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; Pediatrics



ACPE Numbers: Various – see listing below

Pre-Sale Date: 09/02/2020

Content Release Date: 09/23/2020

Expiration Date: 09/21/2021

Activity Type: Application-based

CE Credits: 19 (BPS and ACPE)

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 BCPPS 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 20 activities (see table below) and provides up to 19 hours of continuing pharmacy education credit and/or recertification credit.

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Recertification Credit*

Board certified pharmacists are eligible to receive up to 19 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>

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.*

REVIEW COURSE:

Learning Activity	ACPE Number	Credit Hours	*Assessment Pass Point
Complex Case: Deep Vein Thrombosis and Metabolic Syndrome	0204-0000-20-994-H01-P	1.50	78%
Complex Case: Diabetic Ketoacidosis	0204-0000-20-995-H01-P	1.50	
Complex Case: Acute Asthma	0204-0000-20-996-H01-P	1.50	
Complex Case: Pneumonia and Septic Shock	0204-0000-20-997-H01-P	1.50	
Group 1 Assessment		6.0	
Complex Case: Acute Lymphoblastic Leukemia and Supportive Care	0204-0000-20-998-H01-P	1.50	76%
Regulatory and IRB Considerations	0204-0000-20-999-H03-P	0.50	
Complex Case: Sickle Cell Disease with Vaso-Occlusive Crisis	0204-0000-20-600-H01-P	1.50	
Medication Error and Practice Management	0204-0000-20-601-H05-P	1.50	
Group 2 Assessment		5.0	
Complex Case: Neonatal Sepsis	0204-0000-20-602-H01-P	1.50	77%
Statistics, Evidence-Based Medicine, and Clinical Trial Design	0204-0000-18-934-H04-P	2.00	
Complex Case: Status Epilepticus and Cardiopulmonary Resuscitation	0204-0000-20-603-H01-P	1.50	
Group 3 Assessment		5.0	

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Learning Objectives

At the end of the presentations, the pharmacist should be able to:

Complex Case: Deep Vein Thrombosis and Metabolic Syndrome

ACPE #: 0204-0000-20-994-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 #: 0204-0000-20-995-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.

Complex Case: Acute Asthma

ACPE #: 0204-0000-20-996-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 #: 0204-0000-20-997-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 and Supportive Care

ACPE #: 0204-0000-20-998-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.

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Regulatory and IRB Considerations

ACPE #: 0204-0000-20-999-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 #: 0204-0000-20-600-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.

Medication Error and Practice Management

ACPE #: 0204-0000-20-601-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 #: 0204-0000-20-602-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 #: 0204-0000-20-603-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.

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Statistics, Evidence-Based Medicine, and Clinical Trial Design

ACPE #: 0204-0000-18-934-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.

CORE THERAPEUTIC MODULES:

The Core Therapeutic Modules for Recertification Package consists of 3 activities (see table below). In each activity, faculty review clinical topics and practice skills using a case-based approach. This package is intended for board certified pharmacists in need of recertification credit; the activities were designed based on the content outline developed by the Board of Pharmacy Specialties (BPS).

Learning Activity	ACPE Number	Credit Hours	*Assessment Pass Point
Select Topics in Pediatric Infectious Diseases Part 2	0204-0000-20-604-H01-P	1.00	72%
Select Topics in Pediatric Nutrition	0204-0000-20-605-H01-P	1.00	
Select Topics in Pediatric Pulmonary Disease: Cystic Fibrosis and Chronic Asthma	0204-0000-20-606-H01-P	1.00	

Learning Objectives

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

Select Topics in Pediatric Infectious Diseases Part 2

ACPE #: 0204-0000-20-604-H01-P

- Develop treatment and monitoring plans based on patient-specific information and the most current guidelines for a pediatric patient with HIV, Herpes Simplex Virus Types 1 and 2, or systemic fungal infections.

Select Topics in Pediatric Nutrition

ACPE #: 0204-0000-20-605-H01-P

- Evaluate if nutrition needs of a pediatric patient are being met based on assessment of appropriate growth and development.
- Develop treatment and monitoring plans based on patient-specific information and the most current guidelines for a pediatric patient with parenteral or enteral nutrition needs.
- Evaluate patients for weight (overweight or obese) based on current guidelines.

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Select Topics in Pediatric Pulmonary Disease: Cystic Fibrosis and Chronic Asthma

ACPE #: 0204-0000-20-606-H01-P

- Interpret relevant clinical and laboratory data and results of diagnostic procedures in a pediatric patient with an exacerbation of cystic fibrosis or chronic asthma.
- Identify relevant differences in laboratory sampling for pediatric patients (e.g., blood volume; method, frequency and timing of sampling).
- Develop the most appropriate therapy and monitoring plans based on patient-specific information and the most current guidelines.

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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.

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System Technical Requirements

Courses and 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.