Materials for this course will release 10/19/2022

Pediatric Pharmacy Specialty Recertification Literature Study: Module 2A-B (Cert # L229117)

Teaser: The Literature Study Module provides immediate access to peer-selected, contemporary articles that are relevant to specialty practice. After learners review the content, they must successfully complete an online assessment to earn recertification credit.

Tag: Certifications; Pediatrics

ACPE Numbers: Various – see listing below
Pre-Sale Date: 09/21/2022
Content Release Date: 10/19/2022
Expiration Dates: 10/17/2023
Activity Type: Application-based
CE Credits: 10 contact hours
Activity Fee: $55 (ASHP member); $110 (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 Literature Studies are designed to help board-certified pharmacists who are seeking recertification contact hours to maintain their Board of Pharmacy Specialties (BPS).

Activity Overview

The Literature Study Module is intended for board certified pharmacists in need of recertification credit and is designed based on the content outline developed by the Board of Pharmacy Specialties (BPS). This module consists of 2 online home study activities (see table below). Each activity is designed to assess the learners' ability to analyze and apply peer-selected contemporary articles to practice and includes a short video for enhanced learning and understanding.

Module 2A -- General Pediatrics: This module focuses on general pediatric issues such as amoxicillin in re-treatmentof community-acquired pneumonia, fluroquinolone and tendon injury in adolescents, and acute hematoganous osteomyelitis guidelines.

Module 2B -- Critical Care: This module focuses on pediatric critical care issues including mortality of non-resuscitation fluid in excess of hydration requirements, levetirectam vs phenytoin or fosphenytoin in status epilepticus, clonidine for agitation post-dexmedetomidine discontinuation, and reduced midazolam usage following implementation of an analgesia-sedation protocol.

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Learners will be required to review the content and complete the associated online assessments. The learner must be able to correctly answer the questions based upon their interpretation of the content, as well as "baseline specialty specific knowledge and/or easily retrievable information." For purposes of this Literature Study, "baseline specialty specific knowledge and/or easily retrievable information" is defined as product labeling and well-established standards of practice in the specialty practice.

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

Recertification Credit*

Board certified pharmacists are eligible to receive up to 10 contact hours of recertification credit for completing this module. To earn recertification credit, learners must review the activity 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.

Learning Activity	ACPE Number	Contact Hours	Assessment Pass Point
Pediatric Pharmacy Literature Study Module 2A: General Pediatrics	0204-0000-22-944-H01-P	5.00	TBD
Pediatric Pharmacy Literature Study Module 2B: Critical Care	0204-0000-22-945-H01-P	5.00	TBD
		10.0 BPS	

Articles and Learning Objectives

Pediatric Pharmacy Literature Study Module 2A: General Pediatrics
ACPE #: 0204-0000-22-944-H01-P

This module focuses on general pediatric issues such as amoxicillin in re-treatmentof community-acquired pneumonia, fluroquinolone and tendon injury in adolescents, and acute hematoganous osteomyelitis guidelines.

Bielicki JA, et al. Effect of Amoxicillin Dose and Treatment Duration on the Need for Antibiotic Re-treatment in Children With Community-Acquired Pneumonia: The CAP-IT Randomized Clinical Trial. *JAMA.* 2021 Nov 2;326(17):1713-1724.

Learning Objectives:

- Describe the CAP-IT trial by Bielicki and colleagues of the effect of amoxicillin dosage and treatment duration on the need for antibiotic re-treatment in children with community-acquired pneumonia (CAP).
- Develop recommendations for the dosage and duration of treatment with amoxicillin in young children with community-acquired pneumonia (CAP).

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Ross RK, Kinlaw AC, Herzog MM, Jonsson Funk M, Gerber JS. Fluoroquinolone Antibiotics and Tendon Injury in Adolescents. *Pediatrics.* 2021;147(6):e2020033316. doi:10.1542/peds.2020-033316

Learning Objectives:

- Describe the study by Ross and colleagues of fluoroquinolone antibiotics and tendon injury in adolescents.
- Develop recommendations for the use of fluoroquinolone antibiotics in adolescents.

Woods CR, Bradley JS, Chatterjee A, et al. Clinical Practice Guideline by the Pediatric Infectious Diseases Society and the Infectious Diseases Society of America: 2021 Guideline on Diagnosis and Management of Acute Hematogenous Osteomyelitis in Pediatrics. *J Pediatric Infect Dis Soc*. 2021;10(8):801-844. doi:10.1093/jpids/piab027

Learning Objectives:

- Describe the 2021 clinical practice guideline from the Pediatric Infectious Diseases Society (PIDS) and Infectious Diseases Society of America (IDSA) on diagnosis and management of acute hematogenous osteomyelitis (AHO) in pediatric patients.
- Develop recommendations for the diagnosis and management of acute hematogenous osteomyelitis (AHO) in pediatric patients.

Pediatric Pharmacy Literature Study Module 2B: Critical Care
ACPE #: 0204-0000-22-945-H01-P

This module focuses on pediatric critical care issues including mortality of non-resuscitation fluid in excess of hydration requirements, levetirectam vs phenytoin or fosphenytoin in status epilepticus, clonidine for agitation post-dexmedetomidine discontinuation, and reduced midazolam usage following implementation of an analgesia-sedation protocol.

Barhight MF, Nelson D, Chong G, Basu RK, Sanchez-Pinto LN. Non-resuscitation fluid in excess of hydration requirements is associated with higher mortality in critically ill children [published online ahead of print, 2021 Mar 17]. *Pediatr Res.* 2021;1-6. doi:10.1038/s41390-021-01456-z

Learning Objectives:

- Describe the study by Barhight and colleagues of non-resuscitation fluid use in critically ill children.
- Develop recommendations for the use of non-resuscitation fluid in critically ill children taking into consideration estimated hydration requirements.

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Klowak JA, Hewitt M, Catenacci V, Duffett M, Rochwerg B, Jones K, et al. Levetiracetam versus phenytoin or fosphenytoin for second-line treatment of pediatric status epilepticus: a meta-analysis. P*ediatr Crit Care Med*. 2021;22(9):e480-e491.

Learning Objectives:

- Describe the meta-analysis by Klowak and colleagues of studies comparing levetiracetam with phenytoin or fosphenytoin as second-line treatment for pediatric patients with status epilepticus.
- Develop recommendations for the second-line treatment of pediatric patients with status epilepticus refractory to benzodiazepine therapy.

Nguyen TL, Lam WM, Orr H, Gulbis B, Mauricio R, Tom E, et al. Clonidine for the treatment of agitation after dexmedetomidine discontinuation in pediatric patients: a retrospective cohort study. J Pediatr Pharmacol Ther 2021;26(8):821-827.

Learning Objectives:

- Describe the study by Nguyen and colleagues of clonidine for the treatment of agitation after dexmedetomidine discontinuation in critically ill pediatric patients.
- Develop recommendations for the use of clonidine for the treatment of agitation after dexmedetomidine discontinuation in critically ill pediatric patients.

Yang Y, Akhondi-Asl A, Geva A, et al. Implementation of an Analgesia-Sedation Protocol Is Associated With Reduction in Midazolam Usage in the PICU. Pediatr Crit Care Med. 2021;22(10):e513-e523. doi:10.1097/PCC.0000000000002729

Learning Objectives:

- LO#1: Describe the study by Yang and colleagues of implementation of an analgesia-sedation protocol in mechanically-ventilated pediatric patients.
- Develop recommendations for the management of pain and agitation in mechanically-ventilated pediatric patients.

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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 consist of educational materials, assessments, and activity evaluations. In order to receive continuing pharmacy education credit, learners must:

- Complete the attestation statement
- Review all content
- Complete and pass the assessments
- Complete the evaluations

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

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.