



# Conference Learning Objectives

29<sup>th</sup> PPA Annual Meeting & 2020 Pediatric Pharmacy Conference  
Hilton Norfolk The Main  
Norfolk, Virginia  
April 29-May 3, 2020

## Hematology/Oncology

### **Little People, Big Challenge: the Pediatric pharmacists' role in promoting, safety, awareness and education in the adult oncology pharmacy setting.**

0180-0000-20-112-L01-P

Michelle Bustamante, PharmD, BCPPS, Miami Cancer Institute, Baptist Health Miami, Miami, FL

#### **Learning Objectives:**

1. Identify the challenges seen when treating pediatric oncology patients in a non-pediatric setting.
2. Describe the role a pediatric oncology pharmacist has to promote awareness and education.
3. Discuss different methods of implementing education and competencies for non-pediatric oncology pharmacy staff.

### **Calming the Storm of Hemophagocytic Lymphohistiocytosis (HLH) through the Use of Emopalumab**

0180-0000-20-110-L01-P

Breana Gosicki, PharmD, UPMC Children's Hospital of Pittsburgh, Pittsburgh, PA

#### **Learning Objectives:**

1. Discuss the etiology, pathophysiology, and clinical presentation of hemophagocytic lymphohistiocytosis (HLH).
2. Summarize recommended treatment options and the role of emopalumab in the HLH treatment algorithm.
3. Describe the mechanism of action of emopalumab-lzsg (Gamifant) and pharmacologic considerations when using this agent in HLH.

### **Advances in the Management of Sickle Cell Disease: New Concepts and Future Horizons**

0180-0000-20-103-L01-P

Tara Higgins, PharmD, BCPPS, UF Health Shands Children's Hospital, Gainesville, FL

#### **Learning Objectives:**

1. Summarize recently FDA approved therapies for sickle cell disease.
2. Assess the role of these new therapies in sickle cell treatment.
3. Evaluate resources available to enhance access to these new therapies.
4. Examine future therapies for sickle cell disease.

### **Options to Continuing Asparaginase Therapy in the Face of Drug Shortages**

0180-0000-20-101-L01-P

Tara Higgins, PharmD, BCPPS, UF Health Shands Children's Hospital, Gainesville, FL

#### **Learning Objectives:**

1. Review asparaginase infusion reaction management pathway.
2. Evaluate options to continue asparaginase therapy after anaphylaxis.

### **Management of Pediatric Chronic Myeloid Leukemia**

0180-0000-20-108-L08-P

Kate Reichert, PharmD, BCPPS, Memorial Sloan Kettering Cancer Center, New York, NY

#### **Learning Objectives:**

1. Describe the clinical presentation, pathophysiology, and diagnosis of pediatric chronic myeloid leukemia (CML).
2. Discuss the most recent recommendations for the management of pediatric CML, as well as the challenges of treating CML in children and adolescents.
3. Recognize the differences between the various tyrosine kinase inhibitors (TKIs) used for the treatment of pediatric CML and outline the role of the pharmacist in managing CML in children and adolescents.

### **Anticoagulation and Monitoring Strategies in ECMO**

0180-0000-20-111-L01-P

Amy Kiskaddon, PharmD, BCPPS and Brian Brown, PharmD, BCPS, BCPPS

Johns Hopkins All Childrens Hospital, St. Petersburg, FL

#### **Learning Objectives:**

1. Review extra corporeal membrane oxygenation (ECMO) and need for anticoagulation.
2. Describe standard anticoagulation agents and monitoring strategies in ECMO.
3. Explain novel anticoagulation and monitoring options in ECMO.
4. Discuss pharmacokinetics of anticoagulation agents in ECMO.

### **New Tools for Harnessing Vessels: An Update on Vascular Anomalies**

0180-0000-20-109-L01-P

Kevin Lonabaugh, PharmD, BCACP, University of Virginia Health System, Charlottesville, VA

#### **Learning Objectives:**

1. Compare and contrast phenotypic and genotypic characteristics of common vascular anomalies.
2. Describe mechanisms of actions for pharmacologic treatments including propranolol, sirolimus, and PI3K inhibitors.
3. Design an appropriate monitoring plan for patients prescribed medications for vascular anomalies.
4. Discuss important counseling points for common medications used to treat vascular anomalies.

### **A New Hope? Novel Anticoagulants in Pediatrics**

0180-0000-20-105-L01-P

Amy Kiskaddon, PharmD, BCPPS and Brian Brown, PharmD, BCPS, BCPPS

Johns Hopkins All Childrens Hospital, St. Petersburg, FL

#### **Learning Objectives:**

1. Describe common anticoagulants used in pediatric patients.
2. Discuss direct oral anticoagulants (DOACs) in pediatric patients.
3. Review current literature and recommendations for novel anticoagulants in pediatric patients.

### **Antimicrobial Stewardship: Applying Principles to the Pediatric Oncology Population**

0180-0000-20-113-L01-P

Jennifer Giroto, PharmD, BCPPS, BCIDP, University of Connecticut, Connecticut Children's Hospital, Hartford, CT

**Learning Objectives:**

1. Describe updates to the Center for Disease Control and Preventions Core Elements for Hospital Antimicrobial Stewardship.
2. Identify the barriers to implementation of antimicrobial stewardship in pediatric oncology patients.
3. Discuss evidence supporting effective stewardship processes in pediatric oncology.

**Tying the Clot: Emicizumab for Hemophilia A**

0180-0000-20-104-L01-P

Mara Rubin, PharmD, Nationwide Children's Hospital, Columbus, OH

**Learning Objectives:**

1. Define hemophilia A, pathophysiology, clinical presentation, and its associated complications.
2. Identify the conventional prophylaxis and treatment modalities of hemophilia A.
3. Recognize the progressive advancement in hemophilia A management with the novel drug emicizumab.
4. Determine the appropriate management in case of breakthrough bleeding for patients on emicizumab.

**RACE for Children: How new legislation will impact pediatric cancer treatment in 2020**

0180-0000-20-106-L03-P

TBD

**Learning Objectives:**

1. Summarize relevant legislation in pediatric research including Best Pharmaceuticals for Children Act (BPCA) and Pediatric Research Equity Act (PREA).
2. Describe the Research to Accelerate Cures and Equity (RACE) for Children Act.
3. Explain the expected impact of the RACE for Children Act for practitioners in pediatric oncology.

**The Changing Paradigm in the Treatment of B-Cell Acute Lymphoblastic Leukemia**

0180-0000-20-107-L01-P

Melissa Rees, PharmD, BCPPS, Phoenix Children's Hospital, Phoenix, AZ

**Learning Objectives:**

1. Analyze recently released results of previous clinical trials for B-Cell Acute Lymphoblastic Leukemia.
2. Discuss fundamental changes in the basic structure of treatment protocols for B-Cell Acute Lymphoblastic Leukemia.
3. Discuss experimental drug therapies, including drug mechanisms, patient considerations and administration concerns.
4. Classify patients based upon disease characteristics according to the newest COG Acute Lymphoblastic Leukemia protocols.

**FLT3 Inhibitors in AML**

0180-0000-20-102-L01-P

Jessica Price, PharmD, Children's Hospital of the King's Daughter, Norfolk, VA

**Learning Objectives:**

1. Understand the role of FLT3 inhibitors in patients with FLT3 positive AML.
2. Know the different classes of FLT3 inhibitors.
3. Identify adverse effects most attributed to FLT3 inhibitors.

#### **An institutional perspective to the implementation of USP<800>**

0180-0000-20-115-L01-P

Matt Spako, PharmD, Nationwide Children's Hospital, Columbus, OH

Jill Blind, PharmD, Nationwide Children's Hospital, Columbus, OH

#### **Learning Objectives:**

1. Describe an institutional interpretation and plan to implementing USP.
2. Identify key decisions made at our institution to achieve USP compliance.
3. Describe future challenges to the implementation and compliance with USP.

#### **Beers for Babes - The KIDS List: Key potentially Inappropriate Drugs in pediatrics**

0180-0000-20-114-L01-P

Rachel Meyers, PharmD, BCPS, BCPPS, Rutgers University, Piscataway, NJ

Christopher McPherson, St. Louis Children's Hospital, St. Louis, MO

Kelly Matson, PharmD, BCPPS, University of Rhode Island, Kingston, RI

David Hoff, PharmD, BCPPS, Children's Minnesota, Minneapolis, MN

#### **Learning Objectives:**

1. Explain the methods used in developing the KIDS list.
2. Differentiate between appropriate use and potentially inappropriate use of KIDS list medications.
3. Identify drugs for which more research is needed in the pediatric population.

## **NICU**

#### **Seeing the Future of Anti-VEGF Treatment for Retinopathy of Prematurity**

0180-0000-20-137-L01-P

Stephen Small, PharmD, BCPS, BCPPS, BCCCP, Denver Health Medical Center, Denver, CO

#### **Learning Objectives:**

1. Understand the pathophysiology of Retinopathy of Prematurity (ROP).
2. Explain current pharmacologic and non-pharmacologic ROP treatments and their challenges.
3. Appraise recent and evolving research on Aflibercept and Ranibizumab for ROP.

#### **Pharmacist Impact on the Treatment of Neonatal Absence Syndrome**

0180-0000-20-139-L01-P

Sarrah Hein, PharmD, BCPPS, Akron Children's Hospital, Akron, OH

#### **Learning Objectives:**

1. Review the signs and symptoms of neonatal absence syndrome (NAS).
2. Discuss non-pharmacologic interventions for the treatment of NAS.
3. Explore pharmacologic options for the treatment of NAS.
4. Demonstrate one hospital's success with using buprenorphine to treat NAS.

### **Saying Hello, Saying Goodbye- Palliative Care and Bereavement in the Perinatal Period**

0180-0000-20-134-L04-P

Amy Holmes, PharmD, BCPPS, Brenner Children's Hospital- Wake Forest Baptist Health, Winston-Salem, NC

#### **Learning Objectives:**

1. Describe the role of palliative care in the perinatal period.
2. Describe the use of medication at the end of life.

### **Implementing nitric oxide stewardship in the Neonatal Intensive Care Unit**

0180-0000-20-136-L01-P

Deborah Bondi, PharmD, BCPPS, BCPS, and Pooja Shah, PharmD, BCPPS  
UChicago Medicine, Comer Children's Hospital, Chicago, IL

#### **Learning Objectives:**

1. Define parameters that demonstrate an appropriate clinical response to nitric oxide in neonates.
2. Evaluate literature that assesses standardized processes for use and weaning of nitric oxide in neonates.
3. Explain the role of the pharmacist in nitric oxide stewardship in the Neonatal Intensive Care Unit (NICU).
4. Describe a single-center experience with implementation of a multidisciplinary nitric oxide weaning guideline in the NICU.

### **The Ifs, Ands, and Buts of Vitamin Supplementation in the NICU**

0180-0000-20-131-L01-P

Kathy Gura, PharmD, BCNSP, Children's Hospital Boston, Boston, MA  
Julia Muzzy Williamson, PharmD, BCNSP, BCPPS, North Dakota State University, Fargo, ND  
M. Petrea Cober, PharmD, BCNSP, BCPPS, Akron Children's Hospital, Akron, OH

#### **Learning Objectives:**

1. Identify which patients at risk for vitamin deficiency and insufficiency of common vitamins.
2. Explain complications associated with deficiency and insufficiency.
3. Recommend a supplementation plan including dosing and monitoring situation.
4. Evaluate transition from injectable supplementation to enteral supplementation.
5. Discuss challenges associated with drug shortages and management of these patients.

### **Making the Most of the Golden Hour**

0180-0000-20-136-L01-P

Amy Holmes, PharmD, BCPPS, Brenner Children's Hospital- Wake Forest Baptist Health, Winston-Salem, NC

#### **Learning Objectives:**

1. Describe the concept/ importance of the golden hour.
2. Discuss strategies to optimize care of the infant during the golden hour.

### **This Isn't the Precipitation You are Looking: Calcium and Phosphate "Forces" Balanced in Parenteral Nutrition**

0180-0000-20-128-L01-P

M. Petrea Cober, PharmD, BCNSP, BCPPS, Akron Children's Hospital, Akron, OH

#### **Learning Objectives:**

1. Describe the relationship between calcium and phosphate concentration in a parenteral nutrition solution and how to interpret calcium-phosphate solubility curves.
2. Differentiate the use of various calcium salts and the impact on calcium-phosphate solubility in the parenteral nutrition solution.
3. Contrast the impact on parenteral nutrition solutions with the use of varying amounts of L-cysteine.
4. Examine the implications of calcium and phosphate solubility information within the electronic health record for parenteral nutrition prescribing.

### **Management of Irritability and Hypertonicity - You Need to Calm Down**

0180-0000-20-138-L01-P

Alexandra Oschman, PharmD, BCPPS, Children's Mercy Kansas City, Kansas, City, MO

#### **Learning Objectives:**

1. Recognize the pros/cons of standard interventions for infant irritability/agitation.
2. Utilize available literature to determine when alternative agents are needed for infant irritability/agitation.
3. Evaluate literature supporting interventions such as dexmedetomidine, clonidine, or gabapentin for irritability.
4. Utilizing the information presented, discuss when to utilize clonidine, clonazepam, or baclofen for management of hypertonicity.

### **Prevention and Treatment of Candidemia/Invasive Candidiasis in the NICU**

0180-0000-20-129-L01-P

Jeremy Stultz, PharmD, BCPPS, The University of Tennessee Health Science Center, Memphis, TN

#### **Learning Objectives:**

In the NICU population:

1. Identify patients who are at risk for Candidemia.
2. Evaluate strategies for Candidemia prevention.
3. Assess treatment options for Candidemia.

### **Toradol, or not Toradol, that is the question: NICU post-operative pain algorithms**

0180-0000-20-132-L01-P

Sadie Stone, PharmD and Emily Evans, PharmD, Children's Hospital of Alabama, Birmingham, AL

#### **Learning Objectives:**

1. Identify the need for standardized post-operative pain management in the neonatal population.
2. Recognize indications and contraindications of ketorolac in NICU patients.

### **A Tiny Balance: Hemostasis and Thrombosis in the Neonate**

0180-0000-20-127-L01-P

Samantha Spishock, PharmD, BCPPS, Arnold Palmer Children's Hospital, Orlando, FL

Sindhuri Avula, Winnie Palmer Hospital for Women and Babies, Orlando, FL

#### **Learning Objectives:**

1. Recognize the differences in components of the coagulation cascade in neonates compared to infants, children, and adults.
2. Review the etiology and pathophysiology of thromboembolic and hemorrhagic disorders in neonates.
3. Discuss thrombosis and hemostasis treatment options in the neonatal population.

### **When to Push and When to Cut: Opioid Stewardship for Postpartum Women**

0180-0000-20-135-L01-P

Noelle Leung, PharmD, BCPPS, University of Kentucky, Lexington, KY

#### **Learning Objectives:**

1. Describe the current opioid crisis and potential impacts for postpartum mothers and their infants.
2. Formulate methods to implement protocols and foster opioid stewardship at birthing centers at various facilities.

### **Updates for the Management of Neonatal Seizures**

0180-0000-20-140-L01-P

Renad Abu-Sawwa, PharmD, BCPPS, Children's Hospital of Georgia, Augusta, GA

Sally Kassem, PharmD, BCPPS, Brandon Regional Hospital, Brandon, FL

#### **Learning Objectives:**

1. Describe the classifications of neonatal seizures.
2. Discuss current recommendations for management of neonatal seizures.
3. Evaluate emerging literature for the management of neonatal seizures.

### **How Low Can You Go? - Low Dose Epinephrine in Infants**

0180-0000-20-127-L01-P

Emily Rodman, PharmD, BCPPS, Texas Children's Hospital, Houston, TX

#### **Learning Objectives:**

1. Identify refractory hypotension in infants.
2. Analyze the available literature on the use of epinephrine in infants.
3. Discuss the use of low-dose epinephrine in infants.

### **Neonatal Zygomycosis Infection: Which Amphotericin B?**

0180-0000-20-125-L01-P

Brittany Shaddix, PharmD, BCPPS Studer Family Children's Hospital, Pensacola, FL

#### **Learning Objectives:**

1. List one or more treatment options for neonatal rhizopus infections.

2. Identify potential benefits for using liposomal Amphotericin B in neonatal fungal infections.

#### **You Cant Handle The Truth: Controversial Medications in the NICU**

0180-0000-20-126-L01-P

Ferras Bashqoy, PharmD, NYU Langone Health Hassenfeld Children's Hospital, New York, NY

Dimitrios Savva, PharmD, BCPPS, Morgan Stanley Children's Hospital, New York, NY

#### **Learning Objectives:**

1. Evaluate literature regarding off label use of controversial medications in neonatal patients.
2. Discuss use of these controversial medications at different practice sites.

#### **To Prevent BPD or Not To Prevent BPD: That is the Question**

0180-0000-20-130-L01-P

Courtney Sutton, PharmD, BCPPS and Jennifer Hale, PharmD, BCPPS

Monroe Carell Jr, Children's Hospital at Vanderbilt, Nashville, TN

#### **Learning Objectives:**

1. Describe the incidence and pathophysiology of bronchopulmonary dysplasia (BPD).
2. Compare the literature surrounding controversial medication therapies in the prevention of BPD.
3. Select patients at high risk of BPD that may benefit from the use of vitamin A or corticosteroid therapy.

#### **2 for 1: Treating Mom & Baby in OB Emergencies**

0180-0000-20-128-L01-P

Lauren Buenger, PharmD, BCPS, BCPPS, Riley Hospital for Children at IU Health, Indianapolis, IN

Bob John, PharmD, BCPS, BCPPS, The Children's Hospital at Saint Francis, Tulsa, OK

#### **Learning Objectives:**

1. Describe OB emergencies and develop a treatment plan for the mother.
2. Discuss the impact of an OB emergency on the neonate.
3. Develop a treatment plan for the neonate both before and after birth.

#### **Neonatal Acute Kidney Injury: When do I adjust dosing?**

0180-0000-20-133-L01-P

Kimberly Tobin, PharmD, BCPPS Cook Children's Hospital Center, Forth Worth, TX

#### **Learning Objectives:**

1. Recognize normal neonatal kidney development.
2. Assess neonatal glomerular filtration rate.
3. Determine when to adjust the most common neonatal medications.