



# Neonatal Pharmacology Conference 2021: Incorporating Evidence-Based Practice into Clinical Decision Making



November 8-10 2021  
Francis Marion Hotel  
Charleston, South Carolina

In-person & virtual attendance available

All live streaming sessions have been approved for  
*AMA PRA Category 1 Credits™*

Presented by the Medical University of South Carolina  
Neonatal Advanced Practice Provider Team,  
Division of Neonatology,  
and the Office of Continuing Medical Education



# Neonatal Pharmacology Conference 2021: Incorporating Evidence-Based Practice into Clinical Decision Making

## COURSE FACULTY

**Kaashif Ahmad, M.D., MSc., FAAP**

Clinical Assistant Professor of Pediatrics  
Baylor College of Medicine  
Clinical Associate Professor of Clinical Sciences  
University of Houston COM  
Director of Clinical Research  
Pediatrics and Obstetrics Specialists of Houston  
Director of Clinical Research  
Pediatrics Medical Group of San Antonio  
Research Director of Neonatal Clinical Trials MEDNAX  
Houston, TX

**Christina Baxter, MSN, APRN, NNP-BC**

Department of Pediatrics  
Division of Neonatal-Perinatal Medicine  
Medical University of South Carolina  
Charleston, SC

**Jason Buckley, M.D.**

Assistant Professor  
Department of Pediatrics  
Division of Pediatric Cardiology  
Medical University of South Carolina  
Charleston, SC

**Reese H. Clark, M.D.**

Vice President of Clinical Research  
MEDNAX Inc  
Clinical Professor of Pediatrics  
USC Greenville School of Medicine  
Greenville, SC

**Ellen Diego, M.D.**

Neonatal-Perinatal Medicine Fellow  
Medical University of South Carolina  
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**Tamatha M Huneycutt, MSN, APRN, NNP-BC**

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Division Chief of Pediatric Neurology  
Medical University of South Carolina  
Charleston, SC

**Katherine Malloy, PharmD, BCPPS**

Clinical Pharmacy Specialist  
Department of Pediatrics  
Division of Neonatal-Perinatal Medicine  
Medical University of South Carolina  
Charleston, SC

**Rita Ryan, M.D.**

Professor of Pediatrics  
Case Western Reserve University  
UH Rainbow Babies & Children's Hospital  
Cleveland, OH

**Elizabeth V. Schulz, MD, FAAP**

MAJ, USAF, MC  
Associate Program Director, NICU Fellowship  
Walter Reed National Military Medical Center  
Assistant Professor of Pediatrics  
Uniformed Services University  
Bethesda, MD

**Kathleen Sprott, PharmD, BCPPS**

Clinical Pharmacy Specialist, Pediatrics/Critical Care  
Medical University of South Carolina  
Charleston, SC

**Heidi Steflik, M.D., MSCR**

Assistant Professor  
Department of Pediatrics  
Division of Neonatal-Perinatal Medicine  
Medical University of South Carolina  
Charleston, SC

**Katherine Twombly, M.D., FAAP, FAST**

Professor of Pediatrics, College of Medicine  
Professor, College of Graduate Medical Studies  
Chief, Pediatric Nephrology  
Medical Director, Pediatric Kidney Transplant  
Medical Director, Acute Dialysis Units  
Medical University of South Carolina  
Charleston, SC

**Carol Wagner, M.D.**

Professor  
Department of Pediatrics  
Associate Director of Nexus Research Center  
Medical University of South Carolina  
Charleston, SC



## CONFERENCE DESCRIPTION

The need for evidenced-based practice in neonatology is increasingly important as clinical decisions and treatments are made. The conference is designed to help NICU professionals including physicians, advanced practice providers, nurse managers and experienced staff nurses make those decisions. The goal of the conference is to share evidence based approaches in the care of the neonate.

## IN-PERSON ATTENDANCE

In addition to virtual attendance for the conference, in-person attendance at the Francis Marion Hotel will be offered. The in-person attendance will be offered on a first come, first serve basis until conference capacity is reached.

## REGISTRATION FEES

	Early	Regular
In-person Attendance	\$450	\$500
Virtual Attendance	\$400	\$450
Access to Recorded Videos (Optional)	\$100	\$100

Early registration fees apply if registration is received on or before August 31, 2021.

The fee for in-person attendance includes tuition, breaks, online syllabus and certificates of attendance. The fee for live streaming the meeting includes tuition, online syllabus, and certificates of attendance.

Please make your check payable to Medical University of South Carolina and mail with the registration form included in this brochure to: Elizabeth Gossen, MUSC Office of CME, 96 Jonathan Lucas Street, HE221A, MSC 754, Charleston, SC 29425.

## ACCESS TO RECORDED PRESENTATIONS

The MUSC Office of CME, with the permission of each speaker, will be recording each presentation of the conference. The videos will be posted online after the conference and be available for those who are not able to live stream the entire conference. Viewing the videos will offer the same amount of CME credit and can be viewed for up to 14 days following the posting date. The *non-refundable* fee for this service is \$100.00 and is only available to individuals registered for the conference. **Access to the videos will be granted to registered attendees who purchase this option in advance of the conference.**

**Credit Designation:** The Medical University of South Carolina designates this enduring material for a maximum of 1.0 *AMA PRA Category I Credit(s)*<sup>™</sup> for each video. Physicians should only claim the credit commensurate with the extent of their participation in the activity.

## CREDIT DESIGNATION

The Medical University of South Carolina designates this live activity for a maximum of **20.00 AMA PRA Category 1 Credit(s)**<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



**Nursing Credit:** This activity has been submitted to the South Carolina Nurses Association for approval to award contact hours. The South Carolina Nurses Association is accredited as an approver of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

**Advanced Practice Registered Nurses:** This continuing education activity awards a total of **20.00 PH** (pharmacology hours). Hours for controlled substances are 2.0.

## ACCREDITATION

The Medical University of South Carolina College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

## DISCLOSURE STATEMENTS

In accordance with the ACCME Essentials & Standards, anyone involved in planning, presenting or moderating at this educational activity will be required to disclose any relevant financial relationships with commercial interests in the health care industry. This information will be made available to participants at the beginning of the activity. Speakers who incorporate information about off-label or investigational use of drugs or devices will be required to disclose that information at the beginning of their presentation.

## REGISTRATION METHODS

*(Please use ONE of these methods to register. Do not mail if previously faxed or telephoned).*

- **Mail** registration form with check made out to "Medical University of South Carolina" or credit card information to:  
Elizabeth Gossen, Office of CME, Medical University of South Carolina, 96 Jonathan Lucas Street, HE 221A, MSC 754, Charleston, SC, 29425
- **Telephone:** (843) 876-1925 – Registration by credit card only
- **Fax:** (843) 876-1931 – Registration by credit card only
- **Online:** <https://tinyurl.com/Neonatal2021online>





# Neonatal Pharmacology Conference 2021: Incorporating Evidence-Based Practice into Clinical Decision Making

**COURSE AGENDA** At the end of each presentation, learners should be better able to achieve the respective objectives stated.

## Monday, November 8, 2021

- 7:00am Registration/Breakfast/Exhibits
- 7:25 Login for Virtual Attendance
- 7:30 **A Case of Kernicterus**, *Ellen Diego, M.D.*  
*Review bilirubin metabolism; List the risk factors for severe hyperbilirubinemia; Distinguish between physiologic jaundice and pathologic jaundice of the newborn; Recognize the clinical manifestations of acute bilirubin encephalopathy and the permanent clinical sequelae of kernicterus; Describe the evaluation and management of neonatal hyperbilirubinemia in the Neonatal ICU*
- 8:30 **Seizures in Neonates: Identification and Management**  
*Dalila Lewis, M.D.*  
Recognize movements/behaviors indicative of seizures in neonates; Identify risk factors for seizures in neonates; Outline the indications for continuous EEG monitoring in the NICU; Deploy evidence-based approach to continuous EEG monitoring and treatment of seizures in the NICU
- 9:30 **BREAK/Exhibits**
- 10:00 **Effect of Maternal Vitamin D Status on Infant Immunity during Lactation: Are There Reasons to Care?** *Carol Wagner, M.D.*  
Discuss how maternal vitamin D status during pregnancy sets the stage for maternal AND infant vitamin D status during lactation; Explain how pregnancy is a state of immune tolerance in both the mother and the developing fetus while lactation is a state of immune enhancement in the infant; Differentiate between maternal vitamin D sufficiency vs. deficiency on immune development of the breastfeeding infant: effects on infant response to hepatitis B vaccine and response to in vitro stimulation
- 11:00 **Transfusion Policies—What Recent Clinical Trials Show Us**  
*Reese Clark, M.D.*  
Describe the diagnosis of anemia of prematurity and its physiological impact; Discuss the findings of the most recent clinical trials evaluating threshold used to determine who needs a transfusion; Name to adverse effects of transfusions.
- 12:00pm **Lunch (on your own)**
- 1:15 **Where's the Beef—Most Important Articles of 2021**  
*Reese Clark, M.D.*  
Discuss if it is safe for moms with COVID to breastfeed their newborn infants; Discuss new information about changes in neurodevelopmental outcomes from age 2 to 10 years for children born extremely preterm; Discuss predicting the need for phototherapy after discharge.
- 2:15 **Pain of My Life: Approaches for Managing the Pain of Survival**  
*Christina Baxter, MSN, APRN, NNP-BC*  
Identify the prevalence of pain in the neonatal population; Explain problems associated with inadequate pain management in neonates; Recognize long term negative effects of poor pain control in neonates; Describe and apply non-pharmacologic pain reduction interventions in practice for infants; Utilize procedural/post op pain management guidelines in practice; Identify pharmacologic pain management options for procedures and post operatively in infants
- 3:15 **BREAK/Exhibits**
- 3:45 **A Million Dreams: Delirium in Critically Ill Infants**  
*Kathleen Sprott, PharmD*  
Recognize the impact of ICU delirium in infants and children; Evaluate available literature regarding prevention, diagnosis, and treatment of delirium in infants; Develop a plan for preventing, diagnosing, and treating delirium in infants
- 4:45 **Adjourn for the Day**

## Tuesday, November 9, 2021

- 7:00am Registration/Breakfast/Exhibits
- 7:25 Login for Virtual Attendance
- 7:30 **Congenital and Acquired Anomalies of the Kidneys and Urogenital Tract (CAKUT): What Every Neonatologist Should Know**  
*Katherine Twombly, M. D.*  
Recognize the most common types of CAKUT and their epidemiology; Review the evidence on timing of postnatal imaging of antenatally detected hydronephrosis; Review the risk and benefits of prophylactic antibiotics in CAKUT to prevent urinary tract infections; Examine common complications of CAKUT and review their treatment options.
- 8:30 **The Role of Erythropoietin in the NICU**  
*Kaashif Ahmad, M.D.*  
Describe the physiological role of erythropoietin in the fetus and newborn; Summarize the available data regarding using erythropoietin for the prevention and treatment of anemia in the NICU; Summarize recent studies and be aware of ongoing research regarding the role of erythropoietin for neuroprotection in premature and term infants.
- 9:30 **Coffee Break/Exhibits**
- 10:00 **The Evidence Behind Medications for Neonatal and Infant Cardiopulmonary Resuscitation**  
*Kaashif Ahmad, M.D.*  
Summarize those medications currently recommended for use by the Neonatal Resuscitation Program (NRP) and Pediatric Advanced Life Support (PALS) for newborns and infants requiring CPR; Evaluate the literature behind the use of epinephrine for delivery room and in-NICU CPR.
- 11:00 **Rare Clinical Sepsis Presentation in a Premature Infant**  
*Tamatha M Huneycutt, MSN, APRN, NNP-BC*  
Review clinical presentation of Methicillin-susceptible *Staphylococcus aureus* (MSSA) Bacteremia; Define the incidence and prevalence of MSSA bacteremia versus MRSA; Discuss diagnostics for MSSA bacteremia and frequently encountered sources of MSSA in the premature infant; Identify the medical management of disseminating MSSA bacteremia treatment and the duration of treatment
- 12:00pm **Lunch (on your own)**
- 1:15 **Relegating Monthly Injections to the Past? Historical Perspectives and Updates on Monoclonal Antibodies for RSV**  
*Elizabeth Schulz, M.D.*  
Review the history of passive immune prophylaxis against respiratory syncytial virus (RSV); Appraise the SENTINEL 1 study to distinguish the risks associated with preterm infants not receiving RSV immunoprophylaxis; Evaluate single-dose nirsevimab for the prevention of RSV in preterm infants.
- 2:15 **Oxygen and ROP: An Update**  
*Rita Ryan, M.D.*  
Decide what saturation targets make sense for your patient and why
- 3:15 **Coffee Break**
- 3:30 **Adrenal Suppression: What is the Safest Approach for Weaning?**  
*Rita Ryan, M.D.*  
Identify the best practices for weaning steroids in a NICU setting and when to do it
- 4:30 **Adjourn for the Day**

# Neonatal Pharmacology Conference 2021: Incorporating Evidence-Based Practice into Clinical Decision Making

## COURSE AGENDA (CONTINUED)

### Wednesday, November 10, 2021

- 7:00am Registration/Breakfast
- 7:25 Login for Virtual Attendance
- 7:30 **Pharmacologic Support for Neonatal Hypotension: Building a Framework and Expanding Your Toolbox**  
*Jason Buckley, M.D.*  
Identify dangerous hypotension promptly; Target the etiology of hypotension; Develop a framework for managing neonatal hypotension
- 8:30 **Patent Ductus Arteriosus (PDA) Device Closure: Where do we Stand in the Modern Era of PDA Treatment?**  
*Heidi Steflik, M.D.*  
Compare and contrast the available devices for transcatheter PDA closure; Evaluate the risks and complications commonly associated with transcatheter PDA closure; Evaluate outcomes associated with transcatheter PDA closure
- 9:30 BREAK
- 9:45 **Acute Kidney Injury and Hypoxic Ischemic Encephalopathy: The Emerging Role for Theophylline**  
*Heidi Steflik, M.D.*  
Review epidemiology of neonatal acute kidney injury (AKI) and associations with poor outcomes in neonates with hypoxic ischemic encephalopathy (HIE); Explore proposed pathophysiologic mechanism of AKI in infants with HIE as well as proposed mechanism of action of theophylline for AKI prevention/mitigation; Appraise the current literature detailing the utilization of theophylline for AKI prevention/mitigation in infants with HIE
- 10:45 **Over the Rainbow: Case Based Investigation of Human Milk Colors and Management**  
*Elizabeth Schulz, M.D.*  
Define mammary gland anatomy and function; Identify the expected color spectrum of human milk at various stages of lactogenesis; Illustrate systems-based processes to escalate maternal or infant healthcare needs.
- 11:45 Lunch (on your own)
- 1:15pm **Fortifiers: Using Food as Medicine**  
*Elizabeth Schulz, M.D.*  
Explain why powdered human milk fortifiers are unsafe in the preterm population; Describe the benefits and limitations of liquid human milk fortifiers; Explain certain pasteurization processes used in the human milk industry; Discuss present and future controversies surrounding the use of human milk-derived human milk fortifiers.
- 2:15 **Optimization of Anti-infectives Through Therapeutic Drug Monitoring and Pharmacodynamics**  
*Katherine Malloy, PharmD*  
Discuss the primary pharmacodynamic parameter for aminoglycosides, beta-lactams, and vancomycin; Describe methods to increase bactericidal effects through optimization of pharmacodynamics; Design an anti-infective regimen to take advantage of pharmacodynamic properties
- 3:15 Adjourn until 2022 (November 9-11, 2022)

## HOTEL ACCOMMODATIONS

**The Francis Marion Hotel**  
387 King Street  
Charleston, SC 29403  
(843) 722-0600

The Francis Marion Hotel, historic Charleston's landmark full service hotel, is in the heart of Charleston's historic district. Located at the newly restored Marion Square, the Francis Marion Hotel is only a few blocks from the Charleston Visitor Center, South Carolina Aquarium, restaurants, boutiques, galleries, museums, antique shops and night life. The hotel offers valet parking, spa, concierge, retail shops and the Swamp Fox Restaurant & Bar. Special group rates start at \$199.00, plus tax, per night. A limited number of guest rooms have been reserved and are being offered on a first come, first serve basis. The room block will be held until Sunday, October 7, 2021 however the room block may be filled prior to this date. In such a case, neither the group rate nor guest room availability can be guaranteed. Therefore, we recommend you make your reservation as soon as possible. Reservations can be made by calling the hotel directly at 843-722-0600 or 877-756-2121 and identifying yourself as being a participant in this meeting, or by following the online directions below. Link for online reservations:

**Online Booking Link:** <https://tinyurl.com/Neonatal2021FMH>  
**Online Booking Code:** NEONATAL21

**Parking:** Valet parking at the hotel is available at \$25.00 plus tax, per day and can be added to your guest folio. In addition, self-parking is available at \$20.00 per day (cash). Rates are subject to change with notice.

## CANCELLATIONS

A refund will be made upon written request prior to October 8, 2021; however, \$100 will be retained for administrative costs. No refunds will be made after October 8, 2021. We reserve the right to cancel the program if necessary. Full registration fees will be refunded for canceled programs. **By registering for this conference, you agree to this cancellation policy.**

## ELECTRONIC SYLLABUS

The conference syllabus will be provided online. Information will be emailed to you the week prior to the conference so that you may download a copy.

## AMERICANS WITH DISABILITIES ACT

It is the policy of the Medical University of South Carolina not to discriminate against any person on the basis of disabilities. If you feel you need services or the auxiliary aids mentioned in this act in order to fully participate in this continuing education activity, please call the Office of Continuing Medical Education at (843) 876-1925, or attach a note to your registration.

## MORE INFORMATION

For more information, visit [www.musc.edu/cme](http://www.musc.edu/cme), call the Office of CME at (843) 876-1925, or email [gossen@musc.edu](mailto:gossen@musc.edu).

## REGISTRATION FORM

# Neonatal Pharmacology Conference 2021

## Incorporating Evidence-Based Practice into Clinical Decision Making

November 8-10, 2021

*By Registering for this conference, you acknowledge and agree to the cancellation policy stated in this brochure.*

Name \_\_\_\_\_ Personal ID# \_\_\_\_\_ XXX - XX - \_\_\_\_\_  
*As you would like it printed on your name badge. Please use the last four digits of your SSN*

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Specialty \_\_\_\_\_ Degree/Credentials \_\_\_\_\_

Daytime Phone ( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_ Business Fax ( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_

Email \_\_\_\_\_  
*Please use the email address you check most regularly to ensure receipt of all CME Credit emails.*

I do not want my name included on a list of participants to be included in handouts at the conference.

## Registration Fees

In-Person Attendance  
Virtual Attendance

### Early Bird Fees

Received on or by 8/31/2021

- \$450  
 \$400

### Regular Fees

Received after 8/31/2021

- \$500  
 \$450

Access to Recorded Presentations\*

- Yes, I would like access to the recorded videos for an additional fee of \$100.00  
 No, I do not want access to the recorded videos for an additional fee of \$100.00

\* The videos will be posted online after the conference. Viewing the videos will offer the same amount of CME credit and can be viewed for up to 14 days following the posting date

Payment must accompany registration:

- Check Payable to Medical University of South Carolina  
 MasterCard  Visa  American Express

Cardholder's Name \_\_\_\_\_

Card Number \_\_\_\_\_

Expiration Date \_\_\_\_\_

CVV Security Code \_\_\_\_\_

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- Online: <https://tinyurl.com/Neonatal2021online>

