

Neonatal Pharmacology Conference 2024: Incorporating Evidence-Based Practice into Clinical Decision Making



November 6-8, 2024
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 2024: Incorporating Evidence-Based Practice into Clinical Decision Making

COURSE FACULTY

Rene Amaya, M.D.

Assistant Professor
Department of Pediatrics
Pediatric Critical Care
Pediatric Palliative Care
Medical Director, Pediatric Bioethics
Clinical Ethics Consultant
MUSC Shawn Jenkins Children's Hospital
Medical University of South Carolina

Jason Buckley, M.D.

Associate Professor, Department of Pediatrics
Director, Cardiac Intensive Care Unit
Division of Pediatric Cardiology
MUSC Shawn Jenkins Children's Hospital

Katherine Chetta, M.D., FAAP

Assistant Professor
Department of Pediatrics/Neonatologist
College of Medicine
Medical University of South Carolina

Reese H. Clark, M.D.

Consulting Associate Professor
Department of Pediatrics
Duke University School of Medicine

Melissa Evans, M.D.

Associate Professor
Pediatric Critical Care Medicine
Medical University of South Carolina

Christopher Ferrante, D.O.

Pediatric Hematology-Oncology Fellow
Medical University of South Carolina

Jeffrey King, M.D.

Neonatal-Perinatal Medicine
Medical University of South Carolina

Katherine Malloy, Pharm.D, BCPPS

Assistant Professor
Clinical Pharmacy Specialist-Neonatology/Pediatrics
Department of Clinical Pharmacy and Outcome Sciences
College of Pharmacy
Medical University of South Carolina

Ashley Osborne, M.D.

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

David Selewski, M.D., MS

Professor
Department of Pediatrics
Director, Pediatric Acute Kidney Care Program
Pediatric Nephrology
Medical University of South Carolina

Heidi Steflik, M.D., MSCR

Associate Professor of Neonatal-Perinatal Medicine
Associate Program Director, Neonatal-Perinatal
Medicine Fellowship Program
Dr. Charles P. Darby Jr. Department of Pediatrics
Medical University of South Carolina

Sylvia Szentpetery, M.D.

Associate Professor
Department of Pediatrics
Division of Pediatric Pulmonology,
Allergy & Immunology
Medical University of South Carolina

Stephen Thacker, M.D., FAAP

Associate Chief Quality Officer
MUSC Children's Health
Co-Director, Antibiotic Stewardship
MUSC Health, Medical Director, Pediatric Antibiotic Stewardship
Associate Professor, Pediatric Infectious Diseases
MUSC Shawn Jenkins Children's Hospital

Anna Thomas, M.D.

Assistant Professor of Clinical Pediatrics
Department of Pediatrics
Division of Neonatal-Perinatal Medicine
Indiana University School of Medicine

Tammy Tran, D.O.

Neonatology-Perinatal Medicine Fellow
Medical University of South Carolina

Katherine Twombly, M.D., FAAP, FAST

Professor, Department of Pediatrics
Chief, Pediatric Nephrology
Program Director, Pediatric Nephrology Fellowship
Medical Director, Pediatric Kidney Transplantation
Medical Director, Acute Dialysis Units
Medical University of South Carolina



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	\$475	\$525
Virtual Attendance	\$525	\$575
Access to Recorded Videos (Optional)	\$100	\$100

Early registration fees apply if registration is received on or before August 30, 2024.

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: Monica Conetta, MUSC Office of CME, 96 Jonathan Lucas Street, HE601, 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)*[™] 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)**[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



Nursing Credit: This activity has been submitted to Lowcountry AHEC for approval to award contact hours. Lowcountry AHEC is approved with distinction as a provider of nursing continuing professional development by South Carolina Nurses Association, an accredited approver 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 Standards for Integrity and Independence in Accredited Continuing Education anyone involved in planning or presenting this educational activity will be required to disclose any financial relationships with any ineligible companies. An ineligible company is any entity whose primary business is producing, marketing, selling, reselling, or distributing healthcare products used by or on patients. Any financial relationships with these ineligible companies have been mitigated by the MUSC Office of CME. Speakers who incorporate information about off-label or investigational use of drugs or devices will be asked 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:
Monica Conetta, Office of CME, Medical University of South Carolina, 96 Jonathan Lucas Street, HE 601, 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/Neonatal2024register>





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

Wednesday, November 6, 2024

- 7:00am Registration/Breakfast/Exhibits
- 7:25 Login for Virtual Attendance
- 7:30 **Neonatal Acute Kidney Injury Provider Perceptions and Practice Patterns: An Updated, International Multidisciplinary Survey Report**
Heidi Steflik, M.D.
Explore differences in provider perceptions and practice patterns related to neonatal acute kidney injury diagnosis, management, and follow up among multidisciplinary providers. Recognize opportunities for improvements in neonatal acute kidney injury diagnosis, management, and follow up.
- 8:30 **Cystic Fibrosis – How Modulator Therapies are Shifting the Care**
Sylvia Szentpetery, M.D.
Review case of in utero meconium ileus rescue. Update on CFTR modulator landscape. Discuss nutritional and care impacts of CFTR modulator therapy. Broach next steps in modulator therapy. Review current strategies for genetic therapies.
- 9:30 **BREAK/Exhibits**
- 10:00 **Surfactant Therapy in Neonates: Pharmacological Aspects, Considerations, and Modes of Administration**
Jeffrey King, M.D.
Describe the physiologic effects of endogenous surfactant. Recall pharmacological aspects of exogenous surfactant therapy. Describe the indications for surfactant therapy. Explain the complications of surfactant therapy. Compare and contrast various modes of surfactant administration (invasive vs non-invasive).
- 11:00 **Metabolic Bone Disease in Premature Infants**
Katherine Twombly, M.D.
Recognize the pathophysiology of normal and abnormal bone development. Identify risks factors for metabolic bone disease in preterm infants. Examine treatment options for neonates with metabolic bone disease
- 12:00pm **Lunch (on your own)**
- 1:30 **Management of CHD in the NICU (and the CICU!): Keeping the Complex Simple**
Jason Buckley, M.D.
Define common congenital heart disease (CHD) lesions cared for in the NICU. Recognize lesion-specific threats and signs of hemodynamic instability. Use evidence-based pharmacologic and medical management strategies to stabilize cardiac emergencies in the NICU.
- 2:30 **Scheduled Versus Symptom-Based Dosing of Morphine for Neonatal Opioid Withdrawal Syndrome**
Anna Thomas, MD
Define neonatal opioid withdrawal syndrome (NOWS). Summarize key principles of treatment for NOWS. Describe different approaches to treatment for NOWS. Describe the evidence supporting symptom-based treatment for NOWS . Identify gaps in knowledge and future directions for research.
- 3:30 **BREAK/Exhibits**
- 3:45 **Optimizing procedural and post-operative pain management in newborns**
Anna Thomas, MD
Describe the neurodevelopment of pain perception in newborns. Describe objective tools for assessment of pain in newborns. Describe various modes of pain management for newborns. Develop a tiered method for approaching the treatment of moderate to severe pain in newborns. Identify knowledge gaps in our understanding of pain in newborns.
- 4:45 **Adjourn for the Day**

Thursday, November 7, 2024

- 7:00am Registration/Breakfast/Exhibits
- 7:25 Login for Virtual Attendance
- 7:30 **Transfusion Thresholds in Preterm Infants**
Ashely Osborne, M.D.
Explain the benefits and risks of red blood cell and platelet transfusions. Discuss the existing evidence surrounding high and low thresholds for red blood cell and platelet transfusions in preterm neonates. Apply evidence-based thresholds for red blood cell and platelet transfusions in patient care.
- 8:30 **Optimizing Dressings for Pediatric Wound Infections**
Rene Amaya, M.D.
Identify pathogens commonly associated with infected wounds. Recognize various topical wound dressings for disinfection, treatment and reduction of bioburden in wounds. Discuss the mechanism of action of these unique dressings.. Apply these dressings in appropriate conditions and patient population.
- 9:30 **BREAK/Exhibits**
- 10:00 **Diaper Dermatitis: Diagnosis and Management of Complex Diaper Dermatitis in Neonates**
Rene Amaya, M.D.
Review the etiologies of diaper dermatitis. Describe the pathophysiology of diaper dermatitis. Review examples of diaper dermatitis assessment tools. Discuss current brand products available for diaper dermatitis. Review an approach towards treatment of diaper dermatitis.
- 11:00 **New Publications in 2024 that should change NICU care: Part 1**
Reece Clark, M.D.
Discuss the role of supplementation with human milk-based fortifier (HMBF), as compared to bovine milk-based fortifier to reduce the incidence of necrotizing enterocolitis, sepsis, and mortality in extremely preterm infants exclusively fed human milk. Describe role of human milk feedings in improving health outcomes and reducing neonatal morbidities.
- 12:00pm **Lunch (on your own)**
- 1:15 **New Publications in 2024 that should change NICU care: Part 2**
Reece Clark, M.D.
Discuss the safety and efficacy of early ibuprofen for closing the patent ductus arteriosus. Review the data on "How much oxygen is too much oxygen in infants born with significant perinatal distress?"
- 2:15 **Mystery Case: Keeping a Broad Differential**
Tammy Tran, D.O.
Develop differential diagnoses for when encountering neonates with a "blueberry muffin rash." Identify appropriate initial workup for these infants. Discuss pharmacologic considerations in the treatment of neonates with mystery diagnosis.
- 3:15 **BREAK/Exhibits**
- 3:30 **Congenital Leukemia: Pathology to Pharmacology**
Christopher Ferrante, D.O.
Recognize clinical presentation of congenital leukemia. Examine the fundamental treatment plan for congenital leukemia. Review the essential pharmacology of the drugs used in treating congenital leukemia.

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COURSE AGENDA (CONTINUED)

Thursday, November 7, 2024 (continued)

- 4:30 **Antibiotic Stewardship**
Stephen Thacker, M.D.
Provide a foundation on the current evidence on variability of practice with regards to antibiotic prescribing in neonatal medicine. Improve knowledge around the impacts of early childhood antibiotic exposures. Acquire empowerment and first step strategies to improve antibiotic use patterns and advocacy for antibiotic stewardship in neonatal medicine.
- 5:30 **Adjourn for the Day**

Friday, November 8, 2024

- 7:00am **Registration/Breakfast**
- 7:30 **Pharmacologic Management of Select Inborn Errors of Metabolism**
Katie Malloy, PharmD, BCPPS
Describe the clinical presentation and etiology of inborn errors of metabolism. Discuss medications used in the management of select inborn errors of metabolism including formulations, route, dosing, and monitoring. Recognize challenges to and identify management strategies for pharmacists in the care of patients with inborn errors of metabolism.
- 8:30 **Continuous Renal replacement Therapy in the NICU**
Dave Selewski, M.D.
Describe the indications for continuous renal replacement therapy in neonates. Recognize the continuous renal replacement therapy in neonates and anticoagulation. Recall the impact of continuous renal replacement therapy on drug dosing in critically ill neonates
- 9:30 **BREAK/Exhibits**
- 9:45 **Understanding Fluid Balance and Fluid Overload in the NICU**
Dave Selewski, M.D.
Discuss measuring and reporting fluid balance in the NIC. Define and differentiate fluid balance and fluid overload. Describe fluid balance, its epidemiology, and impact in critically ill neonates
- 10:45 **Opioid Rotation and Applications for Neonatal Intensive Care**
Melissa Evans, M.D.
Explain the rationale and indication for considering opioid rotation in the NICU. Identify commonly used opioids and their pharmacologic properties. Outline the process for initiating opioid rotation, monitoring and adjustment strategies. Assess risks and benefits associated with opioids and opioid rotation in neonates. Discuss future directions and research.
- 11:45 **Mid-Morning Break/Exhibits**
- 12:00pm **Early Hydrocortisone, Bronchopulmonary Dysplasia, and the PREMILOC Trial: A Practical Overview**
Katie Chetta, M.D.
Examine the use of hydrocortisone in the very preterm population. Recognize how hydrocortisone may impact adrenal insufficiency, bronchopulmonary dysplasia, and survival in extremely low birth weight infants. Recall the evidence for PREMILOC (Early Low-Dose Hydrocortisone to Improve Survival without Bronchopulmonary Dysplasia in Extremely Preterm Infants) and its dosing for extremely low birth weight infants.
- 1:00pm **Adjourn until 2025 (November 12-14, 2025 at The Hyatt Place)**

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 \$219.00, 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 6, 2024**, 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/Neonatal2024online>
Online Booking Code: NEONATAL24

Parking: Valet parking at the hotel is available at \$42.00 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 6, 2024; however, \$100 will be retained for administrative costs. No refunds will be made after October 6, 2024. 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, call the Office of CME at (843) 876-1925, or email conetta@musc.edu.

REGISTRATION FORM

Neonatal Pharmacology Conference 2024

Incorporating Evidence-Based Practice into Clinical Decision Making

November 6-8, 2024

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 8/30/2024
☐ \$475
☐ \$525

Regular Fees
Received after 8/30/2024
☐ \$525
☐ \$575

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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Please direct any inquiries to Monica Conetta, Office of CME 843.876.1925 or conetta@muscc.edu

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