

Neonatal Pharmacology Conference 2025: Incorporating Evidence-Based Practice into Clinical Decision Making



November 12-14, 2025

The Hyatt Place Historic District
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 2025: Incorporating Evidence-Based Practice into Clinical Decision Making

COURSE FACULTY

Andrew M. Atz, MD

Chair, The Dr. Charles P. Darby, Jr. Department of Pediatrics
Professor of Pediatric Cardiology
L.Lyndon Key, Jr. Endowed Chair
Medical University of South Carolina

Rubin Aujla, M.D., MPH

Perinatal Psychiatrist
Assistant Professor
Medical University of South Carolina

Christina Baxter, DNP, APRN, NNP-BC

MUSC Shawn Jenkin's Children's Hospital
Medical University of South Carolina

David G. Bundy, M.D., MPH

Professor
Department of Pediatrics
Medical University of South Carolina

Florian Capobianco III, D.O.

Pediatric Neurology Resident | PGY-4
Medical University of South Carolina

Candi Jump, D.O., MSEd, CNSC

Associate Professor of Pediatrics
Associate Program Director, Pediatric Residency Program
Medical Director, Nutrition Support Services
Division of Pediatric Gastroenterology, Hepatology, and Nutrition
Medical University of South Carolina

Jeffrey King, M.D.

PGY-5 Neonatal-Perinatal Medicine Fellow
Medical University of South Carolina

Chung Lee, M.D., Ph.D.

Assistant Professor
Division of Pediatric Allergy, Immunology, and Pulmonology
Medical University of South Carolina

Mark A. Lockett, M.D.

Professor
Department of Surgery
Medical University of South Carolina

Michael J. Morowitz, MD, FACS

Professor of Surgery
University of Pittsburgh School of Medicine
Attending Pediatric Surgeon
Division of Pediatric General and Thoracic Surgery
UPMC Children's Hospital of Pittsburgh

Ravi Patel, M.D., MSc

Professor Department of Pediatrics
Director of Neonatal Clinical Research
Emory University and
Children's Healthcare of Atlanta

Remberto C. Paulo, M.D

Associate Professor of Pediatrics
Interim Division Director
Pediatric Endocrinology
Department of Pediatrics
Medical University of South Carolina

Rita Ryan, M.D.

Professor
Department of Pediatrics
Case Western Reserve University

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

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

Katherine Twombly, M.D., F.A.A.P., F.A.S.T.

Professor, Dr. Charles P. Darby Jr.
Department of Pediatrics Chief,
Pediatric Nephrology Medical Director, Acute Dialysis Units
(Charleston and Midlands)
Medical Director, Pediatric Kidney Transplant Program
Program Director, Pediatric Nephrology Fellowship Program
Medical University of South Carolina

Christine Woodburn, D.O.PGY-5

Neonatal-Perinatal Fellow
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 The Hyatt Place 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	\$500	\$550
Wednesday & Thursday Attendance	\$225	\$250
Friday Attendance	\$150	\$160
Virtual Attendance	\$550	\$600
Wednesday & Thursday Attendance (V)	\$250	\$275
Friday Attendance (V)	\$165	\$175

Early registration fees apply if registration is received on or before August 29, 2025.

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 \$150.00 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 the South Carolina Nurses Association for approval to award contact hours. The South Carolina Nurses Association is accredited as an approver of nursing continuing professional development 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/Neonatal25registration>





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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 12, 2025

- 7:00am Registration/Breakfast/Exhibits
- 7:30 **Pharmacologic approaches to bronchopulmonary dysplasia**
Chung Lee, M.D.
Explain the basic pathophysiology of bronchopulmonary dysplasia and its clinical consequences. Describe the challenges in management of bronchopulmonary dysplasia due to its heterogeneous nature. Explain how different medication classes target specific pathways involved in bronchopulmonary dysplasia. Discuss the potential for emerging therapies in bronchopulmonary dysplasia.
- 8:30 **Congenital Hypothyroidism in the NICU: Controversies, Conundrums, and Clinical Clues, Remberto Paulo, M.D.**
Describe the epidemiology, etiology, and pathophysiology of congenital hypothyroidism (CH). Summarize current newborn screening protocols and diagnostic approaches. Identify evidence-based management, including dosing and monitoring of levothyroxine. Discuss special considerations in preterm infants and transient forms of CH. Analyze recent trends, and future directions in CH care. Identify different approaches to challenging CH cases in the NICU.
- 9:30 **BREAK/Exhibits**
- 10:00 **From Crisis to Care: Addressing Maternal Postpartum Depression to Optimize Neonatal Outcomes, Jeffrey King, M.D.**
Define terms including social determinants of health, equity, quality, justice, and healthcare disparities. Compare pertinent maternal and neonatal data across the United States. Describe screening tools used to evaluate for postpartum depression. Recognize signs and symptoms associated with postpartum depression. Compare and contrast various medications used to treat postpartum depression. Recall side effects of various medications used to treat postpartum depression and its effects on the newborn. Describe current strategies in recognizing and managing postpartum depression in the neonatal intensive care unit.
- 11:00 **Hacks for Vax Backtracks: Understanding & Addressing Vaccine Hesitancy, David Bundy M.D.**
Describe current trends and patterns in vaccine hesitancy. Calculate potential implications of vaccine refusal on vaccine-preventable illness incidence. Apply behavior change strategies to increase parent and family acceptance of standard vaccine recommendations.
- 12:00pm **Lunch (on your own)**
- 1:30 **Provider Role in Opioid Epidemic**
Mark Lockett, M.D.
Discuss the genesis of and evolving nature of healthcare's impact on the opioid epidemic.
- 2:30 **Antenatal and Postnatal Antibiotic Exposures and the Maternal-infant Dyad**
Michael Morowitz, M.D.
Recognize the Impact of Early Antibiotic Use on Preterm Infants: evaluate the risks and benefits of early empiric antibiotic administration in preterm infants, particularly extremely low birth weight (ELBW) infants, and recognize the potential long-term effects on the gut microbiome, including dysbiosis and its association with conditions like necrotizing enterocolitis (NEC), late-onset sepsis (LOS), and antibiotic resistance.
- 3:30 **BREAK/Exhibits**
- 3:45 **Antibiotics, NEC, and the Preterm Infant Microbiome**
Michael Morowitz, M.D.
Analyze the Role of the NANO Trial in Shaping Neonatal Care Practices: gain insight into the design and objectives of the NANO Trial, including its hypothesis that empiric antibiotic use may influence the composite incidence of NEC, LOS, or death in preterm infants, and critically assess the implications of the trial's findings for developing evidence-based guidelines on antibiotic use in clinically stable ELBW infants.
- 4:45 **Adjourn for the Day**

Thursday, November 13, 2025

- 7:00am Registration/Breakfast/Exhibits
- 7:30 **Treatment for Perinatal Opioid Use Disorder and the Effects on the Neonate**
Rubin Aujla, M.D.
Recall the medication options for treating Opioid Use Disorder (OUD) in a pregnant person. Describe the signs and symptoms of Neonatal Opioid Withdrawal Syndrome (NOWS). Describe the standard of care treatments for Neonatal Opioid Withdrawal Syndrome (NOWS).
- 8:30 **Anti-Seizure Medications in the Neonatal Period**
Florian Capobianco, D.O.
Recall the common etiologies and underlying biomolecular mechanism of neonatal seizures to help guide evaluation and targeted therapies. Compare the efficacy, safety, and pharmacokinetics of anti-seizure medications commonly used in the neonatal period. Review acute and maintenance dosing of anti-seizure therapy commonly used in the neonatal period. Discuss the utility of laboratory monitoring of serum levels of anti-seizure medications and the optimal timing of such tests. Describe the less common presentations of neonatal seizures and advanced treatment modalities of such cases.
- 9:30 **BREAK/Exhibits**
- 10:00 **Comfort First: The Role of Medications in Neonatal End-of-Life Care**
Christine Woodburn, D.O.
Describe the goals of pharmacologic management at the end of life in the neonatal population. Explain the indications, mechanisms, and potential side effects of commonly used medications for symptom relief in dying neonates. Compare pharmacologic options for managing key symptoms such as pain, dyspnea, agitation, and secretions at end of life. Discuss considerations for medication administration routes in neonates receiving end-of-life care. Identify opportunities to integrate pharmacologic interventions into individualized palliative care plans in the NICU setting.
- 11:00 **From Spit-Up to Solutions: A Guide to Infant Reflux**
Candi Jump, D.O.
Explain the natural history of infantile reflux. Distinguish between GER and GERD. Describe the risks and benefits of antacids use in neonates. Develop a treatment plan for infants with reflux.
- 12:00pm **Lunch (on your own)**
- 1:15 **New Drugs and Toys used by Pediatric Cardiologists**
Andy Atz, M.D.
Describe novel medications used in the neonatal population. Describe catheter based interventions available to premature and low weight neonates.
- 2:15 **Does Red Blood Cell Transfusion Cause Necrotizing Enterocolitis?**
Ravi Patel, M.D.
Discuss the relative contributions of red blood cell transfusion and severe anemia to the development of necrotizing enterocolitis. Define potential mechanisms of transfusion and anemia-induced intestinal injury. Describe current recommendations for red blood cell transfusion practices in preterm infants.
- 3:15 **BREAK/Exhibits**
- 3:30 **Caffeine Dosing, Initiation and Duration of Therapy in Preterm Infants**
Ravi Patel, M.D.
Discuss the comparative effectiveness of early vs. later initiation of caffeine. Describe studies on timing of discontinuation of caffeine. Define the risks and benefits of higher vs. routine dosing of caffeine.

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COURSE AGENDA (CONTINUED)

Thursday, November 13, 2025 (continued)

- 4:30 **If It Quacks, Is It a Duck? Mystery Case Review**
Christy Baxter, DNP, APRN, NNP-BCD
Define the presented disease process. Describe physical and laboratory diagnostic criteria of the disease process. Distinguish from other commonly identified pathophysiology. Explain potential treatment options and future research.
- 5:30 **Adjourn for the Day**

Friday, November 14, 2025

- 7:00am **Registration/Breakfast**
- 7:30 **Neonatal Kidney Disease and Treatments**
Katherine Twombly, M.D.
Explain the pathophysiology of neonatal kidney disease. Describe diagnosis options for neonatal kidney disease. Describe available treatment for neonates with kidney disease.
- 8:30 **Therapeutic Drift in Neonatology-A Cautionary Tale: Walking Down the Primrose Path for Steroids**
Rita Ryan, M.D.
Describe the current state of the data available for using steroids in evolving BPD. Compare the utility of dexamethasone vs. hydrocortisone.
- 9:30 **BREAK/Exhibits**
- 9:45 **The PDA Pendulum**
Rita Ryan, M.D.
Recall how we got to the current state of PDA management and treatment. Describe the concept of identifying a subset of babies who might benefit from PDA treatment.
- 10:45 **Tiny Patients, Big Virus:
Tackling Cytomegalovirus Infection in Neonates**
Stephen Thacker, M.D.
Define the epidemiology, transmission mechanisms, and clinical significance of congenital and perinatal cytomegalovirus infection in neonates. Describe the diagnostic approach to CMV in neonates, including timing, specimen selection, and interpretation of laboratory results. Compare the clinical manifestations and outcomes of symptomatic versus asymptomatic CMV infection in preterm and term infants. Discuss current evidence-based strategies for prevention, treatment, and long-term follow-up of infants affected by CMV.
- 11:45 **Mid-Morning Break/Exhibits**
- 12:00pm **Hot off the Press: Publications in 2024-2025 with Potential to Change Neonatal Practice**
Heidi Steflik, M.D.
Explore findings from top articles in Neonatology from 2024-2025. Discuss opportunities for improvements in neonatal care or further study based on findings from top articles.
- 1:00pm **Adjourn until 2025 (November 9-11, 2026 at The Hyatt Place)**

HOTEL ACCOMMODATIONS

The Hyatt Hotel Historic District

560 King Street
Charleston, SC 29403
(843)414-4900

Nestled in the heart of Charleston's Upper King Historic District between the Restaurant District and Museum Row, Hyatt Place Charleston/Historic District offers a rooftop bar, restaurants, and exceptional service close to some of the most popular things to do in Charleston. Return to our spacious rooms to relax and spend a beautiful evening at our rooftop bar offering more than 40 craft beers and stunning city views. The Hyatt Place Charleston/Historic District has all the amenities you need for a luxurious stay. Special group rates start at \$239.00, plus tax, and destination fee 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 Thursday, October 9, 2025 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 877-803-7534 and identifying yourself as a participant in this meeting, or by following the online directions below.

Online Booking Link: *MUSC Neonatal Conference 2025*

Online Booking Code: **NEONATAL25**

Parking: Valet parking at the hotel is available at \$49.00 plus tax, per day and can be added to your guest folio. In addition, self-parking is available at the public garage. See CME website for rates. Rates are subject to change

CANCELLATIONS

A refund will be made upon written request prior to October 12, 2025; however, \$100 will be retained for administrative costs. No refunds will be made after October 12, 2025. 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 2025

Incorporating Evidence-Based Practice into Clinical Decision Making

November 12-14, 2025

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

	Early Bird Fees Received on or by 8/29/2025	Regular Fees Received after 8/29/2025
In-Person Attendance (Full Conference)	☐ \$500	☐ \$550
Virtual Attendance (Full Conference)	☐ \$550	☐ \$600
Daily In-Person Attendance Wednesday	☐ \$225	☐ \$250
Daily Virtual Attendance Wednesday	☐ \$250	☐ \$275
Daily In-Person Attendance Thursday	☐ \$225	☐ \$250
Daily Virtual Attendance Thursday	☐ \$250	☐ \$275
Daily In-Person Attendance Friday	☐ \$150	☐ \$160
Daily Virtual Attendance Friday	☐ \$165	☐ \$175

Access to Recorded Presentations*

☐ Yes, I would like access to the recorded videos for an additional fee of \$150.00

☐ No, I do not want access to the recorded videos for an additional fee of \$150.00

* 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 ☐ Discover

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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