

Neonatal Pharmacology Conference 2023: Incorporating Evidence-Based Practice into Clinical Decision Making



November 13-15 2023
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 2023: Incorporating Evidence-Based Practice into Clinical Decision Making

COURSE FACULTY

Joshua Arenth, M.D., FAAP

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

Katherine Chetta, M.D., FAAP

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

Reese H. Clark, M.D.

Executive Director
Pediatrix Center for Research,
Education, Quality and Safety
Vice President of Clinical Research
MEDNAX Inc
Clinical Professor of Pediatrics
USC Greenville School of Medicine
Greenville, SC

Ellen Diego, M.D.

Assistant Professor
Department of Pediatrics
Division of Neonatology
University of Minnesota

Alicia Grenolds, RN, MSN, CPNP

Sr. Instructor
Pediatrics-Pulmonary Medicine
Children's Hospital Colorado
Anschutz Medical Campus

Dorothea Jenkins, M.D.

Professor
Department of Pediatrics
College of Medicine
Medical University of South Carolina

Katherine Malloy, PharmD, BCPPS

Assistant Professor
Department of Clinical Pharmacy and Outcome Sciences
College of Pharmacy
Medical University of South Carolina

Colby L. Richardson, M.D.

Assistant Professor
Department of Pediatrics
Division of Neonatology
University of Rochester Medical Center

Alison Rohrer, MS RD LD

Neonatal Dietitian &
Nutrition Management Center Manager
Shawn Jenkins Children's Hospital
Medical University of South Carolina

Meg See, PharmD, MPH

NICU Clinical Pharmacy Specialist
College of Pharmacy
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

Elizabeth Schulz, M.D., FAAP

Lt Col, USAF, MC
Director, Neonatal-Perinatal Medicine Fellowship Program
National Capital Consortium
Walter Reed National Military Medical Center

Heidi Steflik, M.D., MSCR

Assistant Professor
Department of Pediatrics
Division of Neonatal-Perinatal Medicine
Medical University of South Carolina
Darby Children's Research Institute

Katherine Vincent, DNP, APRN, NNP-NC

Neonatal Nurse Practitioner
Shawn Jenkins Children's Hospital
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	\$450	\$500
Virtual Attendance	\$500	\$550
Access to Recorded Videos (Optional)	\$100	\$100

Early registration fees apply if registration is received on or before August 31, 2023.

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, 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)*[™] 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 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/Neonatal2023online>





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

Monday, November 13, 2023

- 7:00am Registration/Breakfast/Exhibits
- 7:25 Login for Virtual Attendance
- 7:30 **Necrotizing enterocolitis (NEC): the best evidence on prevention and management in the NICU**
Katherine Chetta, M.D.
Learners will be able to name three evidence-based practices reduce preterm NEC. Learners will be able to summarize why human milk is protective against NEC. Learners will be able to describe two controversial topics in NEC prevention
- 8:30 **Quality Improvement Methodology in Neonatal Pharmacology Part 1: QI Basics**
Ellen Diego, M.D.
Define quality improvement. Describe why quality improvement is needed to reduce gaps in best practice. Outline seven key steps in the process of quality improvement.
- 9:30 **BREAK/Exhibits**
- 10:00 **Applying Quality Improvement Methodology to Neonatal Pharmacology Part 2: QI Practical Application**
Ellen Diego, M.D.
Review applications of quality improvement methodology in neonatal pharmacology. Provide guidance for providers to plan, implement, assess and sustain change ideas that enable improved care delivery.
- 11:00 **New Publications in 2023 that Should Change NICU Care**
Reese Clark M.D.
Discuss the changes in RSV prevention. Recognize the efficacy of hydrocortisone in preventing bronchopulmonary disease. Review new information surgical and medical treatment of complicated intraabdominal infections
- 12:00pm **Lunch (on your own)**
- 1:15 **New Publications in 2023 that Should Change NICU Care**
Reese Clark M.D.
Discuss the rate of spontaneous closure of the ductus arteriosus in premature infants (gestational age of 23-32 weeks at birth) discharged home with a persistently patent ductus arteriosus.
- 2:15 **Management Strategies for Neonatal and Infant Pain**
Katherine Malloy, Pharm.D.
Compare and contrast pharmacologic features, dosing, and monitoring of various agents for neonatal and infant pain. Discuss potential cost-savings and patient safety initiatives for pain and agitation medications. Design a pain management regimen for both opioid-naïve and opioid-tolerant neonates.
- 3:15 **BREAK/Exhibits**
- 3:45 **Is it "Ph" or "F"? Cephalosporin Use in Neonates and Infants**
Katherine Malloy, Pharm.D.
Compare and contrast classes of cephalosporins in regards to spectrums of activity and other pharmacologic features. Describe the role of cephalosporins in neonatal infection. Evaluate current literature evaluating the impact of cephalosporins in neonates
- 4:45 **Adjourn for the Day**

Tuesday, November 14, 2023

- 7:00am Registration/Breakfast/Exhibits
- 7:25 Login for Virtual Attendance
- 7:30 **Beyond the Stigma: Is Chest/Breastfeeding Safe While Living with HIV**
Elizabeth Schulz, M.D.
Review the pathophysiology of human immunodeficiency virus (HIV) and current antiretroviral therapies (ART). Assess the correlation of maternal viral load and additional factors associated with the risk of HIV transmission during pregnancy and lactation. Communicate current global guidelines surrounding chest/breastfeeding for HIV-infected mothers.
- 8:30 **Clogged Pipes: A New Look on Urinary Tract Dilation**
Katherine Vincent, DNP
Correctly diagnose and quantify urinary tract dilation (UTD) antenatally or postnatally using the current standard of assessment, the UTD classification system. Recognize different imaging modalities and their appropriate uses for diagnosing congenital anomalies of the urinary tract. Describe the pathophysiology of common congenital anomalies of the urinary tract that cause UTD and place infants at higher risk of urinary tract infections. Apply the UTD classification system management schema to dictate frequency and timing of renal ultrasound follow-up in the clinical setting. Summarize pharmacological treatment of urinary tract infections and identify when prophylaxis with antibiotics is necessary.
- 9:30 **BREAK/Exhibits**
- 10:00 **Spit It Out!: Salivary Drug Monitoring in Neonates**
Elizabeth Schulz, M.D.
Assess the principles of therapeutic drug monitoring. Evaluate unique aspects of obtaining salivary samples in the pediatric and neonatal population. Review current clinical trials utilizing salivary therapeutic drug monitoring in neonates.
- 11:00 **Mystery Case: What We Know, What We Don't, and Motivation to Never Stop Learning**
Heidi Steffik, M.D.
Construct a differential diagnosis for a newborn with hepatic failure. Outline key components of diagnostic evaluation for a newborn with hepatic failure of unknown etiology. Recognize uncertainty in medicine is common and identify opportunities for continued learning when uncertainty arises.
- 12:00pm **Lunch (on your own)**
- 1:15 **Sodium supplementation in preterm infants: worth its weight in salt?**
Allison Rohrer, MS
Identify populations at high risk for sodium deficiency. Define sodium requirements in preterm infants. Interpret urine sodium values in high-risk populations. Describe the practice of using spot urine sodium to guide sodium supplementation. Recognize limitations in evidence and research on approaches to sodium supplementation in the preterm population
- 2:15 **Avoiding Fluid Overload in Small Babies**
Colby Richardson, M.D.
Recognize what is fluid overload in extremely preterm infants. Describe poor outcomes that may be associated with fluid overload in extremely preterm infants. Identify common sources of 'hidden' sodium and fluid. Determine the role of quality improvement in improving fluid overload in extremely preterm infants
- 3:15 **BREAK/Exhibits**

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COURSE AGENDA (CONTINUED)

Tuesday, November 14, 2023 (continued)

- 3:30 **Pharmacologic Debates in the First Week of Life**
Colby Richardson, M.D.
Describe the current state of evidence for early steroids in extremely preterm infants. Describe the current state of evidence for prophylactic indomethacin in extremely preterm infants. Describe the current state of evidence for insulin in extremely preterm infants.
- 4:30 **On the Horizon – The Future of Respiratory Syncytial Virus Prophylaxis (RSV)**
Meg See, Pharm.D.
Summarize the American Academy of Pediatrics (AAP) Guidance for RSV Prophylaxis. Compare current and future monoclonal antibodies for the prevention of RSV. Discuss current RSV Vaccine Clinical Trials
- 5:30 **Adjourn for the Day**

Wednesday, November 15, 2023

- 7:00am **Registration/Breakfast**
- 7:30 **NOWs treatment: Eat Sleep Console, Brain Stimulation and Beyond**
Dorothea Jenkins, M.D.
Describe physiology of opioid withdrawal in neonates and different clinical risk factors for more severe withdrawal. Describe current data on ESC short and long term outcomes, and possible drawbacks to this treatment. Describe pros and cons of other approaches currently being tested in Randomized controlled trials.
- 8:30 **Continuous Renal Replacement Therapy: Indications, Dosing, Anti-coagulation and Impact Drug Dosing**
Dave Selewski, M.D.
Describe the indications for continuous renal replacement therapy in neonates. Recognize the continuous renal replacement therapy in neonates and anticoagulation. Define the impact of continuous renal replacement therapy on drug dosing in critically ill neonates.
- 9:30 **BREAK/Exhibits**
- 9:45 **End of Life Pharmaceutical Strategies for the Neonate**
Joshua Arenth, MD
Recognize common symptoms in dying neonates. Distinguish classes of medications according to usefulness for common symptoms Recommend appropriate medication dosages for initiating comfort-focused medications. Assess response to pharmacologic treatment.
- 10:45 **Management of established Bronchopulmonary Dysplasia (BPD) and other forms of Developmental Lung Disease in the NICU population**
Alicia Grenolds, CPNP
Describe established BPD and other forms of developmental lung disease seen in the NICU. Recognize clinical guidelines for management of BPD. Expand knowledge regarding therapies for lung disease beyond the NICU.
- 11:45 **Mid-Morning Break/Exhibits**
- 12:00pm **Acute and Long Term Management of Pulmonary Hypertension (PH) in the NICU population**
Alicia Grenolds, CPNP
Deepen understanding of PH physiology in the neonate and older infant. Review clinical guidelines for management of PH. Expand knowledge of PH targeted therapies – oral, inhaled, IV/SQ.
- 1:00pm **Adjourn until 2024 (November 6-8, 2025)**

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 \$209.00, 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 13, 2023**, 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/Neonatal2023FMH>
Online Booking Code: NEONATAL23

Parking: Valet parking at the hotel is available at \$28.00 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 13 2023; however, \$100 will be retained for administrative costs. No refunds will be made after October 13, 2023. 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 2023

Incorporating Evidence-Based Practice into Clinical Decision Making

November 13-15, 2023

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 8/31/2023

- \$450
 \$500

Regular Fees

Received after 8/31/2023

- \$500
 \$550

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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