



NICKS

Neonatal and Infant Course for
KIDNEY SUPPORT



Virtual Training
via



1.5 Day Course



Children's
of Alabama

UAB MEDICINE

CURRICULUM AGENDA

ALL TIMES LISTED ARE CENTRAL DAYLIGHT TIME

Monday, May 24, 2021

7:30-7:45	Log-In/Zoom Admittance All participants will enter Waiting Room until start of meeting.
7:45-8:00	Roll Call/Introductions
8:00-8:15	Welcome: ~ Suzanne White, RN, BSN, CPN Dialysis Director, Renal Care Center Children's of Alabama ~ David Askenazi, MD, MSPH <ul style="list-style-type: none"> • Pre-Test, Goals & Rules of Course • Housekeeping Items
8:15-8:45	Acute Kidney Injury and Fluid Overload in Small Children ~ David Askenazi, MD
8:45-9:15	End-Stage Kidney Failure in Neonates ~ Tennille Webb, MD
9:15-10:00	Principles of Neonatal Kidney Support Therapy, Part 1 ~ Michael Zappitelli, MD
10:00-10:15	Break
10:15-11:00	Principles of Neonatal Kidney Support Therapy, Part 2 ~ Jennifer Jetton, MD
11:00-11:45	Principles of Neonatal Kidney Support Therapy, Part 3 ~ Kara Short, MSN, CRNP
11:45-12:15	Caring for the Neonate on Kidney Support Therapy: A Parent's Perspective ~ Kara Short, MSN, CRNP, with the Wilson family
12:15-1:00	Break
1:00-1:30	Caring for the Neonate on Kidney Support Therapy: The Neonatologist's Perspective ~ Christine Stoops, DO, MPH

1:30-1:45	Medications During Kidney Support Therapy ~ Traci Henderson, RPh
1:45-2:00	Nutrition During Kidney Support Therapy ~ Katelyn Stinson, RDN, LD
2:00-2:15	Access for Kidney Support Therapy in Infants ~ Vince Mortellaro, MD
2:15-2:30	Break
2:30-4:15	Hands-On Nursing Specific Tasks ~ Suzanne Gurosky, BSN, RN ~ Daryl Ingram, BSN, RN, CDN ~ Kara Short, MSN, CRNP ~ Jolyn Morgan, MSN, APRN, CNP, CDN
4:15-4:25	Educating Your Team ~ Jolyn Morgan, MSN, APRN, CNP, CDN
4:25-4:45	Caring for Your Program ~ David Askenazi, MD, MSPH
4:45-5:00	Concluding Remarks: Bringing It All Together ~ David Askenazi, MD, MSPH
5:00	Dismissal

Tuesday, May 25, 2021

8:15-12:00	Morning Groups ~ Simulation Team and NICKS Faculty
1:15-5:00	Afternoon Groups ~ Simulation Team and NICKS Faculty

Participants will be divided into either morning or afternoon groups. All participants will be actively engaged in four separate simulations. NICKS and Simulation Center faculty will be supervising simulations and readily available to answer questions. All simulations will include a post debriefing.



OVERALL LEARNING OBJECTIVES

At the end of the course, the learner will:

1. Recognize the epidemiology of neonatal acute kidney injury and neonatal end-stage kidney failure.
2. Recognize the indications and optimal timing of Kidney Support Therapy in neonates and infants.
3. Identify the principles central to the provision of safe and effective treatment using different forms of neonatal kidney support therapy.
4. Develop strategies to optimize the kidney support program at each participant's home institution through educational, administrative, personnel and quality improvement initiatives.

SESSION-SPECIFIC LEARNING OBJECTIVES

Acute Kidney Injury and Fluid Overload in Small Children

- Review the epidemiology of neonatal and pediatric acute kidney injury (AKI)
- Review data on fluid overload (FO) in critically ill neonates and children
- Describe the common indications for Kidney Support Therapy (KST) in patients with AKI/FO

End-Stage Kidney Failure in Neonates

- Review the epidemiology of neonatal end-stage kidney failure (ESKF)
- Describe the common indications for KST in neonates and infants with ESKF

Principles of Neonatal Kidney Support Therapy Part 1

- Discuss the goals of KST for neonates and infants with AKI, FO, and ESKF
- Review timing of initiation of KST for neonatal AKI/ESKF
- Describe the terminology of KST
 - * Clearance mode (diffusion vs. hemofiltration vs. ultrafiltration)
 - * Peritoneal vs. veno-venous
 - * Continuous vs. intermittent vs. prolonged intermittent
- Discuss elements of the PD prescription
- Discuss specifics (features, pros and cons) for different KST machines available for small children

Principles of Neonatal Kidney Support Therapy Part 2

- Discuss access for patients who need KST
- Review options for KST on Extracorporeal Membrane Oxygenation (ECMO)
- Review options for priming circuits and the rationale for blood primes
- Acquire strategies for optimizing blood prime procedures
- Compare the options, benefits, risks, set up, complications and monitoring for different anticoagulation options

Principles of Neonatal Kidney Support Therapy Part 3

- Discuss elements of a CVVH/CVVHD prescription (blood flow, dialysis/replacement rates, ultrafiltration rates)
- Discuss Filtration Fraction
- Discuss approaches to ultrafiltration rate prescription
- Troubleshoot potential ultrafiltration issues and discuss plans to address these issues
- Review hematocrit scenarios

Caring for the Neonate on Kidney Support Therapy: A Parent's Perspective

- Discuss a patient on KST and his clinical course from birth to now
- Consider the perspective of the parents and the responsibilities of taking care of one of our KST babies

Caring for the Neonate on Kidney Support Therapy: The Neonatologist's Perspective

- Discuss how our approach to making decision to start KST has changed in our NICU
- Discuss cardio-pulmonary disease care in neonates on KST
- Discuss strategies to have the best collaborative practices for your KST program

Nutrition During Kidney Support Therapy

- Discuss importance of nutritional goals during KST
- Review guidelines for nutrition feeding during KST

Medications During Kidney Support Therapy

- Discuss importance of medication goals during KST
- Review guidelines for medication during KST

Access for Kidney Support Therapy in Infants

- Review intravascular and peritoneal dialysis access options for KST
- Discuss the principles of PD and vascular access placement

Hands-On

- Demonstrate set-up and features of modified CVVH on Aquadex
- Demonstrate set-up and features of CARPEDIEM
- Review blood prime procedures
- Discuss options for circuit-to-circuit change
- Discuss dealing with access alarms
- Review recirculation procedures

Educating Your Team for Kidney Support Therapy

- Discuss frequency, documentation, training, and certification of team members
- Review educational training tools

(continued)



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OVERALL LEARNING OBJECTIVES

SESSION-SPECIFIC LEARNING OBJECTIVES continued

Caring for Your Program

- Discuss the advantages and disadvantages of different types of nursing structures
- Review Roles and Responsibilities for all team members for the program — during KST initiation and during KST maintenance
- Discuss the importance of standardizing Policies and Procedures
- Review Elements of Order Sets
- Discuss potential quality improvement initiatives



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FACULTY

David Askenazi, MD, MSPH

Professor, Pediatric Nephrology
Director, Pediatric and Infant Center for Acute
Nephrology (PICAN)
University of Alabama at Birmingham
Children's of Alabama

Tennille Webb, MD

Professor, Pediatric Nephrology
University of Alabama at Birmingham
Children's of Alabama

Michael Zappitelli, MD

Assistant Professor, Pediatrics
Director, Dialysis and Apheresis Program
McGill University/Montreal Children's Hospital
Montreal, Quebec

Jennifer Jetton, MD

Clinical Associate Professor, Pediatrics
Medical Director, Pediatric Dialysis Unit
University of Iowa

Kara Short, MSN, CRNP

Acute Dialysis Nurse Practitioner, Pediatric Nephrology
Children's of Alabama

Christine Stoops, DO, MPH

Assistant Professor, Pediatric Neonatology
University of Alabama at Birmingham
Children's of Alabama

Traci Henderson, RPh

Pediatric Nephrology Pharmacist
Children's of Alabama

Katelyn Stinson, RDN, LD

Pediatric Nephrology Dietician, Children's of
Alabama

Vince Mortellaro, MD

Assistant Professor, Pediatric Surgery
University of Alabama at Birmingham
Children's of Alabama

Suzanne Gurosky, BSN, RN

Acute Dialysis Nurse
Children's of Alabama

Daryl Ingram, BSN, RN, CDN

Head Acute Dialysis Nurse
Children's of Alabama

Jolyn Morgan, MSN, APRN, CNP, CDN

Clinical Manager, Pediatric Nephrology
Cincinnati Children's Hospital
Medical Center

Nancy Tofil, MD, MEd

Professor and Director, UAB Pediatric Critical Care
Medical Director, Pediatric Simulation Center at
Children's of Alabama

Chrystal Rutledge, MD

Assistant Professor, UAB Pediatric Critical Care
Co-Director, Pediatric Simulation Center at
Children's of Alabama

Registration Information

[Register here](#)

(payment by credit card only)

Physicians: \$325

Nurses/NPs: \$275

Fellows: \$200



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