



Virtual Training
via
zoom

1.5 Day Course



UAB MEDICINE

CURRICULUM AGENDA

Monday, October 4, 2021

ALL TIMES LISTED ARE CENTRAL DAYLIGHT TIME

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| <p>7:30-7:45 Log-In/Zoom Admittance Participants should log in before 7:45; everyone will enter a waiting room and will be admitted at 7:45.</p> <p>7:45-8:00 Introductions What to expect/housekeeping items ~ Kara Short, MSN, CRNP</p> <p>8:00-8:05 Welcome: ~ Laura Needham, MSHA, BSN, RN Director of Nursing, CV Services Children's of Alabama</p> <p>8:05-8:50 Indications and Timing of Kidney Support Therapy for Acute Kidney Injury, Fluid Overload, and Congenital Kidney Failure ~ David Askenazi, MD, MSPH</p> <p>9:50-9:40 Principles of Neonatal Kidney Support Therapy, Part 1 ~ Tennille Webb, MD</p> <p>9:40-10:30 Principles of Neonatal Kidney Support Therapy, Part 2 ~ Shina Menon, MD</p> <p>10:30-10:45 Break</p> <p>10:45-11:35 Principles of Neonatal Kidney Support Therapy, Part 3 ~ Kara Short, MSN, CRNP</p> <p>11:35-12:00 Caring for the Neonate on Kidney Support Therapy: A Parent's Perspective ~ Kara Short, MSN, CRNP, with the Wilson family</p> <p>12:00-1:00 Lunch Break</p> <p>1:00-1:45 Hands-On ~ Kara Short, MSN, CRNP ~ Daryl Ingram, BSN, RN, CDN ~ Jolyn Morgan, DNP, APRN-CNP, CDN</p> | <hr/> <p>1:45-3:45 Breakout Session: Providers</p> <p>1:45-2:00 Medications During Kidney Support Therapy ~ Traci Henderson, RPh</p> <p>2:00-2:15 Nutrition During Kidney Support Therapy ~ Janelle Schirmer, RDN, LD</p> <p>2:15-2:30 Hyperammonemia ~ Shina Menon, MD</p> <p>2:30-2:45 Break</p> <p>2:45-3:15 Caring for the Neonate on Kidney Support Therapy: The Intensivist's Perspective ~ Santiago Borasino, MD</p> <p>3:15-3:45 Access for Kidney Support Therapy in Infants ~ Vince Mortellaro, MD</p> <hr/> <p>1:45-3:45 Breakout Session: Nurses</p> <p>Hands-On Nursing Specific Skills ~ Daryl Ingram, BSN, RN, CDN ~ Jolyn Morgan, DNP, APRN-CNP, CDN ~ Kara Short, MSN, CRNP</p> <hr/> <p>All participants</p> <p>3:45-4:05 Educating Your Team ~ Jolyn Morgan, DNP, APRN-CNP, CDN</p> <p>4:05-4:25 Caring for Your Program ~ David Askenazi, MD, MSPH</p> <p>4:25-4:30 Concluding Remarks: Bringing It All Together ~ Kara Short, MSN, CRNP</p> <p>4:30 Dismissal</p> |
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[Register here](#)



NICKS

Neonatal and Infant Course for
KIDNEY SUPPORT



Virtual Training
via

zoom

1.5 Day Course



Children's
of Alabama

UAB MEDICINE

CURRICULUM AGENDA

Tuesday, October 5, 2021

ALL TIMES LISTED ARE CENTRAL DAYLIGHT TIME

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 (based requests made at time of registration to the extent possible). 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.

[Register here](#)



OVERALL LEARNING OBJECTIVES

At the end of the course, the learner will:

1. Recognize the epidemiology of neonatal acute kidney injury and neonatal congenital 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

Indications and Timing of Kidney Support Therapy for Acute Kidney Injury Fluid Overload, and Congenital Kidney Failure

- Review the epidemiology of neonatal and pediatric acute kidney injury (AKI)
- Recognize the impact of fluid overload (FO) in critically ill neonates and children
- Discuss the epidemiology of congenital kidney failure (CKF)
- Outline the goals of KST for neonates and infants with AKI/FO
- Describe the common indications and optimal timing for kidney support therapy (KST) in patients with AKI/FO/CKF

Principles of Neonatal Kidney Support Therapy Part 1

- Discuss the goals of KST for neonates and infants with AKI, FO, and CKF
- 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

Hands-On

- Demonstrate features of manual peritoneal dialysis
- Demonstrate features of modified CVVH on Aquadex
- Demonstrate features of CARPEDIEM
- Demonstrate features of HF20 on Prismax
- Review troubleshooting of extracorporeal circuits

Medications During Kidney Support Therapy (Providers)

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

Nutrition During Kidney Support Therapy (Providers)

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

Hyperammonemia (Providers)

- Discuss strategies for the care of a neonate with hyperammonemia
- Learn to mitigate potential negative consequences when performing high clearance KST

Caring for the Neonate on Kidney Support Therapy: The Intensivist's Perspective (Providers)

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

Access for the Neonate on Kidney Support Therapy in Infants (Providers)

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

(continued)

[Register here](#)



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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.

OVERALL LEARNING OBJECTIVES

SESSION-SPECIFIC LEARNING OBJECTIVES continued

Hands-On Nursing Specific Skills (Nurses)

- Demonstrate set-up of modified CVVH on Aquadex
- Demonstrate set-up 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

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

Kara Short, MSN, CRNP

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

Tennille Webb, MD

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

Shina Menon, MD,

Assistant Professor, Department of Pediatrics
Medical Director, Acute Renal Therapies
University of Washington
Seattle Children's Hospital

Santiago Borasino, MD, MPH

Associate Professor, Department of Pediatrics
Pediatric Critical Care
University of Alabama at Birmingham
Children's of Alabama

Traci Henderson, RPh

Pediatric Nephrology Pharmacist
Children's of Alabama

Janelle Schirmer, 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

Daryl Ingram, BSN, RN, CDN

Head Acute Dialysis Nurse
Children's of Alabama

Jolyn Morgan, DPN, APRN-CNP, CDN

APRN Lead & Clinical Nurse 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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THANK YOU TO OUR SUPPORTERS

Nuwellis, Inc.
(formerly CHF Solutions, Inc.)

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