



CURRICULUM AGENDA

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|-------------|---|-----------|--|
| 7:30—8:00 | Registration and Breakfast | 2:15—3:45 | BREAKOUT SESSIONS |
| 8:00—8:05 | Welcome | | PROVIDERS |
| 8:05—8:50 | Indication for Kidney Support Therapy for Acute Kidney Injury, Fluid Overload, and Congenital Kidney Failure | | Medication during Kidney Support Therapy |
| 8:50—9:35 | Principles of Neonatal Kidney Support Therapy Part I | | Nutrition during Kidney Support Therapy |
| 9:35—9:45 | BREAK | | Hyperammonemia |
| 9:45—10:30 | Principles of Neonatal Kidney Support Therapy Part II | | Access for Kidney Support Therapy in Infants |
| 10:30—11:15 | Principles of Neonatal Kidney Support Therapy Part III | 3:45—4:00 | BREAK |
| 11:15—11:45 | Caring for the Neonate on Kidney Support Therapy: The Intensivist's Perspective | 4:00—4:15 | Educating Your Team |
| 11:45—1:00 | LUNCH AND EXHIBITS | 4:15—4:30 | Caring for Your Program |
| 1:00—1:15 | Caring for the Neonate on Kidney Support Therapy: A Parent's Perspective | 4:30—4:45 | Concluding Remarks: Bringing It All Together |
| 1:15—2:15 | Hands-on for all participants | 4:45 | EXHIBITS and DISMISSAL TO DINNER |

REGISTER HERE

Questions? Contact Meagan Reagan at mereagan@uabmc.edu

CONTINUING EDUCATION

Children's of Alabama designates this live activity for a maximum of 10.5 AMA PRA Category 1 Credits.

Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Children's of Alabama is accredited by the Medical Association of the State of Alabama to provide continuing medical education for physicians.



UAB MEDICINE

CURRICULUM AGENDA

7:30—8:15 BREAKFAST and EXHIBITS

8:15—12:00 **Hands-on Simulation**

All participants will be actively engaged in four separate simulations during this time. NICKS and Simulation Center

Faculty will be supervising and readily available to answer questions.

All simulations will include a post debriefing.

12:00 LUNCH and EXHIBITS

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.

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SESSION SPECIFIC LEARNING OBJECTIVES

Indications for 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

Principles of Neonatal Kidney Support Therapy, Part I

- ⇒ Discuss the timing of kidney support therapy 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 II

- ⇒ 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 III

- ⇒ 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: The Intensivist's Perspective

- ⇒ Discuss approaches to making decision to start KST in ICU
- ⇒ Discuss cardio-pulmonary disease care in neonates on KST
- ⇒ Discuss strategies to have the best collaborative practices for your KST program

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

- ⇒ Discuss cases of end-stage kidney disease in patients who required ECMO and KST and overview of their current status
- ⇒ Consider the perspective of the parents and the responsibilities of taking care of babies on KST

Hands-on (All Participants)

- ⇒ Demonstrate features of manual PD
- ⇒ Demonstrate features of modified CVVH on Aquadex
- ⇒ Demonstrate features of CARPEDIEM
- ⇒ Review troubleshooting of extracorporeal circuits
- ⇒ Discuss initiation of KST

Medications During Kidney Support Therapy

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

Nutrition During Kidney Support Therapy

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

Hyperammonemia

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

Access for KST in Infants

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

Hands-on Nursing Specific Skills

- ⇒ Demonstrate setup of modified CVVH on Aquadex
- ⇒ Discuss setup 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 KST

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



SESSION SPECIFIC LEARNING OBJECTIVES

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 KST maintenance
- ⇒ Discuss the importance of standardizing policies and procedures
- ⇒ Review elements of order sets
- ⇒ Discuss potential quality improvement initiatives

FACULTY

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