ICONIC- Improving Carpediem[™] Outcomes in Neonates and Infants through Collaboration

Cara Slagle MD^{1,3,4}, Katja Gist DO^{2,3,4}, Kelli Krallman BSN MS³, Jolyn Morgan DNP APRN³, Shina Menon MD⁵ on behalf of the ICONIC Collaborative

¹Division of Neonatology, ²The Heart Institute, and the ³Center of Acute Care Nephrology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH ⁴Department of Pediatrics, University of Cincinnati, Cincinnati, OH ⁵Division of Nephrology, Seattle Children's Hospital, Seattle, WA

INTRODUCTION

- Infants receiving Continuous Kidney Replacement Therapy (CKRT) experience worse outcomes compared to children and adults
- Technical challenges, lack of dedicated devices for children <10 kg, and infrequent occurrence have led to limited knowledge on best practices
- The CArdio-Renal PEdiatric Dlalysis Emergency Machine (Carpediem[™]) is the first dedicated platform in the United States to provide CKRT to neonates and young infants
- Single site use is expected to be infrequent making best practice strategies difficult to interpret individually

OBJECTIVES

A multicenter quality improvement and research registry dedicated to identifying best practices and treatment strategies to improve outcomes in this population

Specific Aims:

- Develop a multi-center quality improvement collaborative network (ICONIC) to discuss program development, share best practices, treatment hurdles, and quality metrics in infant CKRT with the Carpediem[™] device in the United States.
- · Establish a Registry and Repository for Research

1. Understand practice pattern variation across the US related to indications for treatment and general use

2. Evaluate predictors of Carpediem^{\mbox{\tiny TM}} filter life within patient and prescription level data

3. Describe patient survival, renal recovery and long-term outcomes of patients that are treated with Carpediem[™].

4. Create a longitudinal database to compare how education and quality improvement metrics change outcomes

5. Establish a biorepository for future research studies



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STRUCTURE

- 7 Core centers (first sites to start using Carpediem[™]) serve as the steering committee. This committee facilitates and oversees research and quality improvement related activities.
- Collaborative sites may elect to participate in Quality Improvement, research, or both. Collaborative sites can submit requests for research proposals
- Membership is multidisciplinary and includes physicians, advanced practice providers, nursing, pharmacy and dieticians
- Bimonthly meetings to facilitate discussion related to understanding best practices and streamlining care and efficiency through "Clinical Practice Excellence" presentations and discussion

DATA

<u>Site Specific Data:</u> Care delivery models & Educational practices Patient Specific Data:



CONCLUSIONS

The development of ICONIC is critical in understanding best practices related to infant CKRT and improving outcomes in this population.

SITES

<u>Core Sites</u> Mayo Clinic; Rochester, MN Texas Children's; Houston, TX Cincinnati Children's; Cincinnati, OH Seattle Children's; Seattle, WA C.S. Mott Children's; Ann Arbor, MI University of Iowa, Iowa City, IA Golisano Children's; Rochester, NY Collaborative Sites Cohen Children's; New York, NY OHSU; Portland, OR University of New Mexico; Albuquerque, NM Children's Hospital of Colorado; Denver, CO UAMS; Little Rock, AR CHOA; Atlanta, GA

Children's Hospital and Medical Care, Omaha, NE

Lucile Packard Children's, San Francisco, CA

CarpediemTM Cardio-Renal Pediatric Dialysis Emergency Machine is trademarked under Medtronic

UCLA; Los Angeles, CA