



**Spring 2026 PediECMO @ PALISI Meeting Minutes**  
Wednesday, March 4, 9:00-12:00 MST

If you attended the meeting, please complete the evaluation:



**9:00-9:30: Welcome & Subcommittee Reports**

**1) Chairs' Update: Jamie Furlong-Dillard & Oliver Karam**

- Goals:
  1. Collaborate with other PALISI subgroups
  2. Work to formalize relationship & collaboration with ELSO
  3. Expand international collaboration
  4. Improve PediECMO Governance Structure:
    - a) Call for Conference Deputy Chair, Scholarly Oversight Committee Deputy Chair, and Education Committee Deputy Chair applicants to be issued soon
- Please complete our Member Needs Assessment Survey:



**2) Scientific Oversight Committee: Arun Saini**

- Goal: Deliver reviews of manuscripts, surveys, and grant applications submitted for PediECMO endorsement
- 13 projects previously reviewed
- Review process:
  1. Submit project for review to [pediecmo.soc@gmail.com](mailto:pediecmo.soc@gmail.com)
  2. 2 members of SOC will review the project
  3. PediECMO will be co-author
  4. Manuscripts must also be submitted to PALISI

5. 2-3 weeks turnaround time

- Email [arun.saini@bcm.edu](mailto:arun.saini@bcm.edu) if interested in joining SOC Committee

### 3) Education Committee: Elise Zivick

- Goal: support lifelong learning among members with focus on pediatric and neonatal ECMO
- Quarterly educational webinar series (CME-approved) with international presence
  1. 13 webinars since 2022
  2. Next webinar: “ECMO in the Immunocompromised Child” collaboration with EuroELSO and ESPNIC March 9 at 11 AM EDT
- Follow PediECMO on Youtube:



- View ECMO articles database:



- View ECMO Fellowship database:



- Future projects: Neo/Peds ECMO podcast, ECMO Cheat Sheet for fellows, ECMO Simulation How-to videos
- Monthly meetings for 30 committee members; Email [pediecmoed@gmail.com](mailto:pediecmoed@gmail.com) if interested in joining committee

### 4) Membership and Diversity Committee: Sharada Gowda

- Goals
  1. To expand and engage a diverse, global PediECMO membership with 10% annual growth in membership
  2. Achieve active membership from 70% of regions with pediatric ECMO centers within 3 years

3. Increase non-physician membership >30%
4. Ensure >50% of membership participate in at least one committee, workgroup, or educational activity
5. Deliver 4 globally accessible educational programs annually with >20% membership participation

**5) Social Media and Communications Committee: Mark Russell**

- Follow us on Twitter/X:



- View our website: <https://pedi-ecmo.com>
- Reach out to Mark Russell if interested in helping: [markrussell2@nhs.net](mailto:markrussell2@nhs.net)

**9:30-10:15: Ongoing Study Updates**

**1) PELICAN (Predicting ECMO Neurologic Injuries Using Machine Learning) – Lakshmi Raman ([Lakshmi.raman@utsouthwestern.edu](mailto:Lakshmi.raman@utsouthwestern.edu))**

- 10-center study with 5-year NIH funding
- Objective: develop advanced machine learning model using bedside physiological and lab variables to predict the risk of neurologic injury
- Aims:
  1. Develop machine learning model to predict significant neurological injury in children on ECMO
  2. Validate and refine the model from Aim 1 using neuroimaging
  3. Deliver a personalized anytime query algorithm that predicts the timing and type of Significant neurological injury.
- Currently collecting data: 390 patients enrolled

**2) PEPSI (Post ECMO Parental Stress Investigation) – Oliver Karam ([oliver.karam@yale.edu](mailto:oliver.karam@yale.edu))**

- Goals:
  1. To estimate the parental prevalence of PTSD, anxiety, and depression after ECMO.
  2. To identify factors associated with these outcomes at the initial assessment.
  3. To examine changes in symptom burden over the subsequent three months.
- Design: Multicenter, cross-sectional, point-prevalence survey study with a prospective 3-month follow-up; 177 patients enrolled
- Preliminary data presented

**3) PT3-ECMO (Platelet Transfusion Threshold Trial on ECMO)– Oliver Karam ([oliver.karam@yale.edu](mailto:oliver.karam@yale.edu))/Marianne Nellis ([man9026@med.cornell.edu](mailto:man9026@med.cornell.edu))**

- Aims:
  1. To demonstrate the non-inferiority of a lower platelet threshold ( $< 50 \times 10^9$  cells/L) prophylactic transfusion strategy, as compared to a higher platelet threshold ( $< 90 \times 10^9$  cells/L) transfusion strategy, in non-bleeding children on ECMO.
  2. To determine whether children on ECMO who are transfused at a lower platelet transfusion threshold as compared to a higher threshold have lower overall exposure to blood components.
  3. To define the association between a bedside marker of platelet function and severe bleeding in children on ECMO
- Grant submitted, awaiting review

**4) ASCEND (ARDS in Children and ECMO Initiation Strategies Impact on Neurodevelopment) – Ryan Barbaro ([barbaror@med.umich.edu](mailto:barbaror@med.umich.edu))**

- Aims:
  1. Among usual care ECMO for PARDS, characterize one-year functional status and health-related quality of life as well as required respiratory support.
  2. Compare the 90-day mortality, one-year functional status, and one-year health-related quality of life are not equivalent for children with usual care ECMO and *PROSpect* protocolized therapies.
- 90 sites, 509 patients enrolled, completing enrollment June 2026
- Bioethics Supplement awarded to Erica Andrist

**5) TITRE (Trial of Indication-Based Transfusion of Red Blood Cells in ECMO) – Ravi Thiagarajan ([ravi.thiagarajan@cardio.chboston.org](mailto:ravi.thiagarajan@cardio.chboston.org)) /Peta Alexander ([peta.alexander@cardio.chboston.org](mailto:peta.alexander@cardio.chboston.org))**

- DoD Grant funded
- 22 sites, 240 patients, enrollment completed July 2025
- Aim to have 12-month neurodevelopmental follow-up visits completed July 2026
- Demographic data presented

**6) Data Elements Utilized in Pediatric and Neonatal Studies – Elise Zivick ([emrath@musc.edu](mailto:emrath@musc.edu))**

- What are CDE? Standardized, precisely defined question that is paired with a set of specific allowable responses
- Benefits:
  1. CDE help data align with FAIR data principles: Findable, Accessible, Interoperable, Reusable
  2. Allow data to be interoperable, which can increase statistical power and allow comparison to existing data.

3. Increase research efficiency – reusable forms/tools
  4. Reduce the burden on data coordinating centers
  5. Encouraged by the NIH when funding researchers
- Systematic Review in final phase
  - Next step: Recruitment and formation of consensus panel to finalize the CDE using a modified Delphi method

### **10:15-10:55: New Study Presentations**

#### **1) “Pediatric Massive Transfusion in ECMO: Resource Utilization and Outcomes (P-MATER)”- Emily Hargrave ([Emily.Hargrave@vumc.org](mailto:Emily.Hargrave@vumc.org)) , Monroe Carell Jr. Children’s Hospital at Vanderbilt; Mentors: Jennifer Andrews MD, Jennifer Muszynski MD**

- Aims:
  1. Identify and describe patient characteristics, resource utilization, and outcomes in pediatric patients on ECMO who receive massive transfusion for life threatening hemorrhage.
  2. Compare morbidity and mortality between pediatric ECMO patients who received massive transfusion and those who did not.
- Methods: Single-center retrospective cohort study including all pediatric patients 0-21 years who received ECMO support at Monroe Carell Jr Children’s Hospital at Vanderbilt from November 1, 2017 to December 31, 2024
- Massive transfusion (MT) definition: Activation of MTP OR >40ml/kg total blood product in a 6-hour time frame (excluding blood prime volume)
- Preliminary data presented
- Questions for audience:
  1. Do I need to adjust my definition of Massive Transfusion? Or do I use this information to identify an MT threshold in this population?
  2. For analysis once data is verified: Focus solely on late MT vs dividing into no MT, early MT, and late MT groups?
  3. How to define end of massive transfusion?

#### **2) “Implementing Early Enteral Nutrition: A Mixed Methods Approach to Address Contextual Barriers to Enteral Feeding in Critically Ill Patients on ECMO”- Marwa Mansour ([marwa.mansour@bcm.edu](mailto:marwa.mansour@bcm.edu)) , Texas Children’s Hospital**

- Goals:
  1. Identify the contextual barriers and facilitators of early nutrition provision in ECMO patients
  2. Develop an implementation strategy
- Aims:
  1. Identify multi-level contextual determinants of EEN initiation in the PICU
  2. Design a tailored implementation strategy
  3. Conduct a pilot evaluation

- Methods: Implementation frameworks where we can conduct interviews and surveys to characterize setting factors (team culture, communication, interdisciplinary dynamics) and individual factors (beliefs about nutrition support, perceived risks/benefits of EEN vs. PN).
- Submit Feedback to Dr. Mansour:



## 11:00-12:00: Hot Topic Panel Discussions

### 1) Anticoagulation-Free Pediatric ECMO

- Panelists:
  1. Ahmed Said, MD, PhD ([said\\_a@wustl.edu](mailto:said_a@wustl.edu)) - Medical Co-Director of ECMO; Washington University in St. Louis
  2. Desiree Bonadonna, MPS, FPP, CCP, LP ([desiree.bonadonna@duke.edu](mailto:desiree.bonadonna@duke.edu)) - ECLS Director, Duke University
  3. Eddy Fan, MD, PhD, FRCPC ([eddy.fan@uhn.ca](mailto:eddy.fan@uhn.ca)) - ECLS Medical Director, Toronto General Hospital
  4. Jamie Furlong-Dillard, DO ([jamie.furlong-dillard@louisville.edu](mailto:jamie.furlong-dillard@louisville.edu)) - ECMO Medical Director, University of Louisville
- Discuss on-going A-FREE ECMO Trial
- Publications discussed:
  1. Martucci, et al. "Anticoagulation and Bleeding during Venovenous Extracorporeal Membrane Oxygenation: Insights from the PROTECMO Study," *Am J Respir Crit Care Med* 2024; 209: 417-426.
  2. Wendel-Garcia, et al. "Low-Dose Anticoagulation to Prevent Intracranial Hemorrhage in COVID-19 Patients under Extracorporeal Membrane Oxygenation Support." *Am J Respir Crit Care Med* 2024; 209: 864-895.
  3. Gannon WD, et al. "Low Intensity vs. Moderate Intensity Anticoagulation for Venovenous Extracorporeal Membrane Oxygenation: The Strategies for Anticoagulation During Venovenous Extracorporeal Membrane Oxygenation Pilot Trial." *Chest* 2025; 168: 639-649.
  4. Kurihara C et al. "Feasibility of Venovenous Extracorporeal Membrane Oxygenation Without Systemic Anticoagulation." *Ann Thorac Surg* 2020; 110: 1209-1215.
  5. Rabinowitz, E et al. "Anticoagulation-Free Pediatric Extracorporeal Membrane Oxygenation: Single-Center Retrospective Study." *Pediatric Critical Care Medicine* 2023; 24 (6): 499-509.

6. Cummings, A et al. “Anticoagulation-free VV ECMO for a child with intractable pulmonary hemorrhage: A Case Report.” *Perfusion* 2025; 11.
7. Von Stumm, M et al. “Impact of Delayed Systemic Heparinization on Postoperative Bleeding and Thromboembolism during Post-cardiotomy Extracorporeal Membrane Oxygenation in Neonates.” *Perfusion* 2020; 35(7): 626-632.

## 2) Pediatric ECPR Potpourri

- Panelists:
  1. Morgann Loaec, MD ([loaecm@chop.edu](mailto:loaecm@chop.edu))- Pediatric Intensivist, Children’s Hospital of Philadelphia
  2. Raysa Demori-Morales, MD ([Raysa.MoralesDemori@bcm.edu](mailto:Raysa.MoralesDemori@bcm.edu)) - Pediatric Cardiac Intensivist, Texas Children’s Hospital
  3. Anne-Marie Guerguerian, MD, PhD, FAAP, FRCPC ([anne-marie.guerguerian@sickkids.ca](mailto:anne-marie.guerguerian@sickkids.ca)) - ECLS Medical Director, Hospital for Sick Kids
- Discussed Dr. Loaec’s manuscript in submission, “Outcomes After In-hospital Cardiac Arrest: Development and Validation of a Survival Model for Risk-Standardized Survival Rates”
- Publications discussed:
  1. Moynihan, K et al. “Extracorporeal Membrane Oxygenation Candidacy Decisions: An Argument for a Process-Based Longitudinal Approach.” *Pediatr Crit Care Med.* 2022;23(9):e434–e9.
  2. Guerguerian, AM et al. “Pediatric Extracorporeal Cardiopulmonary Resuscitation ELSO Guidelines.” *ASAIO Journal* 2021; 67(3): 229-237.
  3. Marino, B et al. “Cardiopulmonary Resuscitation in Infants and Children with Cardiac Disease: A Scientific Statement from the American Heart Association.” *American Heart Association Congenital Cardiac Defects Committee of the Council on Cardiovascular Disease in the Y, Council on Clinical C, Council on C, Stroke N, Council on Cardiovascular S, Anesthesia, Emergency Cardiovascular Care C. Circulation.* 2018;137(22):e691–e782.
  4. Olson, T et al. “Extracorporeal Cardiopulmonary Resuscitation for Pediatric Out-of-hospital Cardiac Arrest: A review of the Extracorporeal Life Support Organization Registry.” *Resuscitation* 2024; 203: 110380.
  5. Loaec, M et al. “Outcomes of Extracorporeal Cardiopulmonary Resuscitation for In-Hospital Cardiac Arrest Among Children with Noncardiac Illness Categories.” *Crit Care Med* 2024; 52 (4): 551-562.
  6. Morales-Demori R, et al. “Outcomes in pediatric ECPR for in-hospital cardiac arrest: an ELSO registry analysis.” *Resuscitation* 2025; 216: 110794.