

Session Title:**Applying the “Mobility under Support of ECLS Framework” to Improve Care and Drive Clinical Research****Speakers:** Aaron Thrush, PT, DPT, MPH, CCS, Joseph Tonna, MD, MS, FCCM, FACEP Anna Ciullo, MD

Session Description: CMO is a complex life-saving therapy that is emerging as an important practice area for physical therapists (PTs). However, uncertainty regarding patient selection, safety, interventions, and outcomes remain. Although research addressing these topics is increasing prevalent and methodologically robust, a comprehensive strategy for developing mobility programs within ECMO units is lacking. Physical therapists in Abu Dhabi designed the Mobility under Support of ECLS (“MuSECLS”) Framework in 2024 in collaboration with ECMO national program leadership and physician, nurse, and education stakeholders. The framework provides a broad structure within which collaboration is facilitated toward the common goal of mobility of patients supported on ECMO. It depicts foundational elements, integrating principles, facilitators, and overarching values that guide program development while allowing flexibility and adaptation. This session will illustrate each component of the framework. PTs embedded in any ECMO program, whether new or established, will gain insights that identify areas of improvement in their service. Real world stories, clinical tools, and processes will be shared to demonstrate concepts. The audience will learn from examples of using quality improvement, critical inquiry, clinical research, and application of evidence-based practice. Physician speakers will present concepts in ECMO management related to mobility. The session will include a recorded presentation from the chair of the ELSO global data registry, who will provide an overview of the registry structure and purpose, how to submit data requests, published literature regarding rehabilitation derived from registry data, and opportunities for PTs to utilize the registry to answer novel and meaningful research questions.

Objectives:

- 1) Participants will understand the importance of each component of the MuSECLS Framework in embedding systems for comprehensive and safe mobility within an ECMO program.
- 2) Participants will apply the MuSECLS Framework to evaluate gaps and opportunities within their ECMO-mobility program.
- 3) Participants will describe the clinical implications of findings from recent investigations in mobility and physical therapy on ECMO.
- 4) Participants will be able to submit a data request to the ELSO Registry for data analysis that will answer a meaningful clinical research question.

What will be the clinician/educator takeaways/skills that can be utilized immediately?

A comprehensive and practical framework illustrating the components of an ECMO mobility program will be immediately actionable in the home ECMO units of participants. Participants will be able to assess strengths and weaknesses of their ECMO mobility programs and leverage resources toward areas of opportunity. Findings from the most recent investigations into topics of safety, interventions, and outcomes will be of immediate value. The ability of physical therapists to utilize ELSO global data registry to answer salient research questions will enhance our profession's contribution to the evidence based for this field of clinical practice.

Speakers Bio:

Aaron Thrush, PT, DPT, MPH, is a critical care physical therapist and rehabilitation education specialist at Cleveland Clinic Abu Dhabi. He has lead efforts to establish the physical therapy program at this ELSO-designated Gold Level Center of Excellence. He is a board certified Cardiovascular and Pulmonary Physical Therapy Specialist since 2016, and is currently a Ph.D. student at Arcadia University in the Movement Science program. Aaron has presented on the topic of physical therapy and ECMO multiple times at Combined Sections Meeting and at the ELSO Southwest Asia and Africa Conference in 2024 and 2025.

Joseph Tonna, MD, MS, FCCM, FACEP, is an intensivist, associate professor, and researcher at the University of Utah, where he serves as Vice Chair in the Department of Surgery. He is the Section Head of Cardiothoracic Critical Care, the Associate Director of Extracorporeal Membrane Oxygenation (ECMO) Services, and has previously served as the Medical Director of the Cardiovascular ICU, where he continues to attend clinically. He is funded by the National Heart Lung and Blood Institute (NHLBI) of the National Institutes of Health (NIH). His clinical and research interests include clinical trials of rescue therapies in critically ill patients, with a focus on extracorporeal membrane oxygenation (ECMO) and extracorporeal cardiopulmonary resuscitation (ECPR). He is the Chair of the ELSO global data registry. Research and publication interests include enhancing early mobility in critical care, safety of mobility on ECMO, and rehabilitation outcomes in ECMO.

Anna Ciullo, MD, is an emergency medicine and critical care intensivist and assistance professor at the University of Utah..

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