



April 2019

ELSO NEWSLETTER



Letter from The President

Mark Ogino, MD- ELSO President

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ELSO Newsletter team:
Omar Alibrahim, MD
Editor
Kennethia Banks-Borden
Co-editor

It's been a busy three months for the organization at all levels; committees, subcommittees, and chapters. There has been considerable activity in each of the "pillars" that I've defined for my two-year term, Clinical Excellence, Education, and Data Resource/Research. Each area continues to expand in multidisciplinary professional involvement and global Chapter engagement.

The Award for Excellence in Life Support remains the cornerstone of ELSO's recognition of clinical excellence. The number of applications continues to increase, and the Center of Excellence awarded centers have received the attention of quality-focused organizations.

I am incredibly grateful to all of the forty plus international members of the ECMOed team who have collaborated to write a unifying document to help guide the future of ECLS education. These guidelines will ensure standard work across all of our chapters concerning education. Other key education projects include a collection of illustrations for members to use in presentations and publications; a free online "ECMO 101" course to introduce the basic concepts of ECMO; and we are also investigating ways to expand the outreach of our publications with translations and hopefully, electronic editions.

The Registry is at the center of our data resource and research foundation. As concerns for privacy increase, ELSO is having multiple conversations regarding the terms of the Data Use Agreement and will continue to monitor the regional regulations, such as GDPR. To facilitate the collaboration between ELSO, industry, and regulatory agencies, a new Technology subcommittee, Device Development Group (DDG), has been created and will work to help bring new products to market while increasing the use of the Registry for this activity.

Sincerely,
Mark Ogino MD

Committee Updates

Registry Committee:

Ryan Barbaro, MD Chair- ELSO Registry

Would ELSO Registry Data inform your research question?

Researchers have increasingly used data collected from member centers of ELSO to inform their clinical investigations. The success of the ELSO Registry has been based on equity of access to the collated data - you can request data through your center director anytime! Clinical requests (not for publication) come directly to Peter Rycus and the Scientific Oversight Committee Chair, and are released as soon as available. The ELSO Registry Committees have formalized policies which facilitate transparent access to ELSO Registry data for the purposes of academic investigation and publication. The Data Request Form details appropriate use of ELSO Registry data, supplemented by policy specific to special populations - Large Datasets and those required for release of anonymized center identifiers (anything requesting center volume information). These policies are now available on the ELSO website <https://www.else.org/Registry.aspx>

Send all completed forms to ELSODataRequest@else.org and we'll be in touch soon.

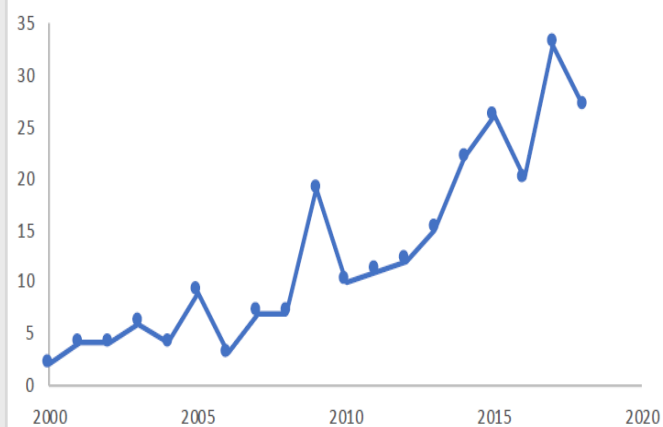
Duties of SOC

- Promote the Scientific Product from the ELSO Registry
- Data Request Review
- Collate Scientific Product from ELSO Registry and identify avenues for as yet under-represented areas of research
- Assist the Registry Chair in coordinating Registry Reports which will be led by experts in the field
- Consider strategies to improve membership survey delivery and completion
- Establish Policies and Procedures around the specified duties to ensure all are carried out with integrity and the highest professional standards

Policies of SOC

- [Summary of SOC Policies](#)
- [Large Dataset Request Policy and Agreement](#)
- [Anonymized Center Identifier Policy](#)

Number of Medline Reference Articles from the ELSO Registry



During the **30th Annual ELSO Conference** located at the Hilton Austin Hotel in Austin, Texas, the **ELSO Registry Committee** will be hosting back to back sessions on the ELSO Registry. Who should come? The Registry Committees invites anyone interested in the Registry to join the meetings and the Registry Committee also invites ELSO members to become involved in the Registry Committee.

The first session, the **Registry Committee Workgroup**, is an informational session held on **Friday September 13th** from **12:00-12:25**. The focus of this session will be to overview the work of the Registry's three subcommittees: (1) the Registry Development Committee, (2) Registry Scientific Oversight Committee, and (3) Registry Quality Committee. The second session, **Registry Data Entry Question and Answer**, is an informational session held on **Friday September 13th** from **12:25-12:50**. The discussion will be focused on recent improvements to registry content, efforts to improve data entry accuracy, and a vision for how ELSO can support member centers in data entry questions and challenges. We will also discuss the recently launched "Registry Competency Examination." This brief one hour tutorial presents case vignettes on data entry in order to improve understanding and accuracy. The training needs to be completed by December 15th, 2019, and the Registry wants to identify any ways we can make it easier for you to accomplish completion. For information on how to attend remotely or for questions regarding the examination or other registry concerns please contact Rob Hyslop (rhylop@else.org) or J.J. Fanning (jfanning0@gmail.com), Registry Development Committee Chairs.

The ELSO Newsletter

Subcommittees of the ELSO Registry Committee

The **Registry Scientific Oversight Committee (SOC)** is a group of ELSO members who volunteer their time on a monthly basis to review and evaluate all research proposals involving ELSO data for scientific merit and feasibility. Commitment is 2 years, with option for renewal. Interested members should send their CV and letter of intent to the Chair, Peta Alexander (Peta.alexander@cardio.chboston.org).

The **Registry Development Committee** is a group of ELSO members who volunteer their time on a monthly basis to ensure ongoing Registry quality and responsiveness to evolving international ECLS support by advancing committee projects and identifying areas for ELSO Registry improvement. Commitment is 2 years, with option for renewal. Interested members should send their CV and letter of intent to the rhysslop@elso.org) or J.J. Fanning (jfanning0@gmail.com).

The **Registry Quality Committee** is a group of ELSO members who volunteer their time with a goal of helping centers improve the quality of ECMO outcomes and care by applying the ELSO Registry Quality Reporting Platform powered by ArborMetrix. To learn more email Ryan Barbaro (barbaror@med.umich.edu).

Logistics & Education Committee:

Bishoy Zakhary, MD Chair- ELSO Logistics & Education

We recently held the inaugural Advanced VV ECMO Workshop in conjunction with SCCM in San Diego. The workshop was a great success and generated great discussion in the lectures and in the simulation sessions. Look for continued offering of this workshop next year with SCCM again. We have just completed another successful 'Adult ECMO Management Course' in Atlanta last week and we are preparing for the 'ECMO Cannulation Workshop' in Atlanta which will be held May 15th, 16th and 17th. In the meantime, we'd like to introduce the members of the ECMOed Taskforce and the seven ECMOed workgroups. Look for international collaborative projects to come from this team soon!

ECMOed the ELSO Education Taskforce

Here we are! let's introduce the faculty of ECMOed, the ELSO ECMO Education Taskforce, an international consortium of health care professionals dedicated to the development and delivery of high-quality education & training in the field extracorporeal support. To start, the creators and pillars:



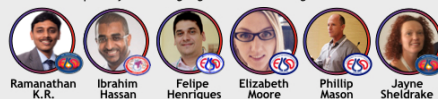
Mark Ogino, Bishoy Zakhary, Rodrigo Diaz

CURRICULUM WG They are focusing on the development of a standard knowledge & hands-on curriculum to standardize ECMO education, aligning quality, and ensuring minimal competency criteria are going to be achieved.



Peter Roeleveld, Guillaume Alinier, Jenelle Badulak, Lindsay Johnston, Ali Ait Hssain, Peter Lai

COURSES WG They are working on the definitions of course standards, on the consistency of lectures format and materials, and on the development of a standard evaluation, in order to ensure a program delivering minimum competency criteria is going to be offered during ECMO courses.



Ramanathan K.R., Ibrahim Hassan, Felipe Henriques, Elizabeth Moore, Phillip Mason, Jayne Sheldrake

WORKSHOPS WG Their main tasks are determining the potential gaps related to ECMO education and proposing standards for ECLS related workshops.

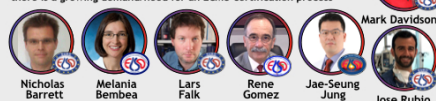


Cara Agerstrand, Vitor Barzilai, Chirine Mossadegh, Wallace Ngai, Leonardo Salazar

ENDORSEMENT WG They are supporting organizations and centers for homegrown learning materials & define ELSO endorsement standards and criteria for ECMO courses, comprehensive simulation-based courses, workshops/symposiums.



CERTIFICATION WG They are outlining a process for assessment and certification, and developing a knowledge/hands-on assessment tool, as there is a growing demand/need for an ECMO certification process.



ONLINE EDUCATION WG They are working on the development of online course components & modules, and integrating into a learning management system, as online education, greatly expanding reach/access to didactic resources, represents a new standard and is going to be a necessary component of an ECLS certification.



RESEARCH WG They are developing tools to assess the efficacy and the impact of ELSO endorsed ECMO educational initiatives on clinicians/HCP performance and patient outcome.



Followed **ECMOed** on Social Media! search for @ECMOed

Upcoming Courses

Extracorporeal Life Support Cannulation Workshop | Emory Conference Center

Location: Atlanta, GA Date: 05/15, 16 & 17/2019- **Full-Registration Closed**

Kennethia Banks-Borden 734-998-6600 Kbanksborden@elso.org

Extracorporeal Life Support in Adult Critical Care | Emory Conference Center

Location: Atlanta, GA Date: 11/06/2019 - 11/09/2019

Kennethia Banks-Borden 734-998-6600 Kbanksborden@elso.org

Registration will open early May 2019

Extracorporeal Life Support Cannulation Workshop | Emory Conference Center

Location: Atlanta, GA Date: TBD

Kennethia Banks-Borden 734-998-6600 Kbanksborden@elso.org

Extracorporeal Life Support in Adult Critical Care | Emory Conference Center

Location: Atlanta, GA Date: 04/04/2020 - 04/04/2020

Kennethia Banks-Borden 734-998-6600 Kbanksborden@elso.org

<https://www.elso.org/Events/ELSOandELSOEndorsedCoursesWorkshops.aspx>

Conference Committee:

Katarzyna (Kasia) Hryniewicz, MD Chair- Conference Committee

ELSO 30TH Annual Conference Austin, Texas

Please join ELSO celebrating our 30th Anniversary Conference in Austin Texas!

Join us for the pre-conference “Deep dive into physiology and program development” beginning Thursday, September 12th, at 1:00 PM, through noon Friday, September 13th.

The pre-conference will focus on all aspects of pulmonary and cardiac physiology, including discussions of illustrative cases. You will hear all you need to know about program development, with talks focusing on the role of program director, coordinator and necessary equipment. This will be followed by a deep dive into simulations, how to design them, and how to use them efficiently. We will finish our pre-conference with a detailed talk on the application for ELSO Center of Excellence.

The main conference “ELSO - 30 years in the making-still going strong!” will begin at 1:00 PM Friday, September 13th ending Sunday, September 15th at noon. As this is a very special 30th Annual Conference, Dr. Robert Bartlett, the father of ECMO and founder of ELSO will be our keynote speaker and will kick off the conference. There will be research updates, debates, a heart lab focusing on cannulation, equipment and complications, neonatal, pediatric and adult breakouts, sessions geared towards RNs, RTs and perfusionists, as well as talks on ECMO reimbursement and finances.

New this year:

- Ask the expert session, please email your clinical questions to Kbanksborden@elso.org
- # contest with prizes for the best tweets, see Conference website for details.
- Electronic abstract submission - deadline July 15, 2019.

The Center of Excellence and FLSO awardees will be honored on Saturday, September 14th at the evening reception that will take place near the venue. Join us for drinks, hors-d'oeuvres, live music, bowling and much more.

Registration is now open! We hope to see you in Austin, Texas! <http://www.cvent.com/d/vbqvsl>

Center of Excellence Committee:

Tracy Morrison, RN Co-Chair for ELSO COE & ELSO Nursing Liaison

The Award for Excellence in Life Support application period just ended March 1st. The COE review committee met in Denver, Colorado (and survived the Bomb Cyclone!) and reviewed 83 submissions! Of those, 69 complete applications were scored. Many centers were awarded the Path to Excellence in Life Support as new programs. The Committee was pleased to see many wonderful processes and projects at the Platinum level. Gold programs continue to demonstrate the wonderful work that is ongoing in ECMO programs.



The first awards were presented in Barcelona, Spain at the 8th Annual EURO ELSO Congress Opening Ceremony on Thursday April 11th at 1345. North American Centers will be notified by July 15th for the award presentations at the 30th Annual ELSO Conference in Austin, Texas in September.

The next phase for the Committee is to complete the Site Visits. Approximately 10% of applications this year will be randomly selected for a validation of their application. Each Center selected two weeks in April, May or June for their visit. Centers that are chosen will be notified two prior to one of the weeks that they chose. If you are an applying Center this year and do not hear from the Committee within those guidelines - your Center will not be visited this year!

Award of Excellence designees may be asked to present their work at an ELSO conference for the poster session! This is a great way to honor both your team and the excellent work you are doing to improve the quality and safety of ECMO patients.

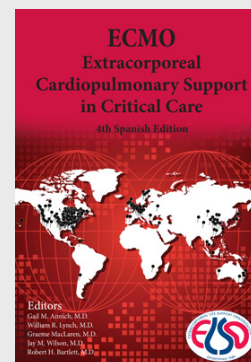
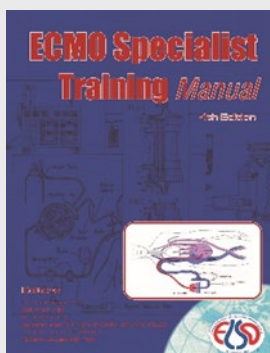
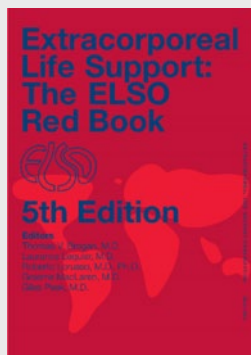
<https://www.else.org/AwardofExcellence.aspx>

Communication Committee:

Thomas Brogan, MD Chair- ELSO Communication Committee

ELSO is working on translating the 4th Edition of the “ECMO Specialist Training Manual” and the 5th Edition of the ECMO Red Book into Spanish. Currently the 4th Edition of the Red Book is available in Spanish.

Velia Antonini, MD and Justyna Swol, MD are leading the Social Media Sub-committee. They are posting on Facebook and Twitter and we are trying to recruit ELSO members to contribute to the subcommittee in reviewing potential posts.



Need a publication? Please visit <https://www.else.org/Publications.aspx>

Technology Committee:

Johnathan Haft, MD Chair- ELSO Technology Committee

ELSO continues to partner with the Society of Thoracic Surgeons (STS) in seeking to reverse or mitigate the Centers for Medicare and Medicaid Services (CMS) re-coding of ECMO Diagnostic Related Groups (DRG) for Fiscal Year 2019. In this reclassification, peripherally cannulated ECMO patients were given lower reimbursing DRG assignments as compared those that were centrally cannulated. CMS has acknowledged receipt of our Comment Letter which states that site of cannulation is not associated with patient acuity nor use of hospital resources.

A face to face meeting is scheduled with CMS administrators in mid-April in which we intend to further elaborate our concerns and describe the financial impact of these DRG changes on ECMO programs and hospitals. Our group also presented a proposal at the ICD-10 PCS Maintenance and Certification Meeting to further characterize cannulation approaches as either surgical or percutaneous. Additionally, we proposed a unique ICD-10 PCS code to identify patients placed on ECMO for procedural support in the absence of profound shock or respiratory failure. Public comment on these proposals is ongoing.

We are currently awaiting CMS publication of the Fiscal Year 2020 Inpatient Prospective Payment System proposed rule which will outline DRG assignments beginning October 1st, 2019. Following this publication, there is a 90-day public comment period for which we will be prepared to respond.

The ELSO/STS collaborative continues to work with other professional medical societies as well as the American Hospital Association as well as industry partners. We remain grateful to our ELSO members that have dutifully entered their clinical data into the ELSO registry, serving as the main pillar in our communications with CMS.

<https://www.else.org/Home.aspx>



Ron Hirschl, Pediatric surgeon, APSA, Stephen Lahey, CT surgeon, STS, Julie Painter, coding specialist, STS
Joseph Cleveland, CT surgeon, STS, Frank Nichols, CT surgeon, STS, Jonathan Haft, CT surgeon, ELSO
Courtney Yohe, Government Affairs, STS

Guidelines & Protocols Committee:

Lakshmi Raman, MD Chair- Guidelines & Protocol Committee

Guidelines committee is working on updating the existing guidelines. Teams with international representation have been identified to help move forward. Guidelines committee is working on updating several of the guidelines. The first ones are expected to be updated by this summer.

<https://www.else.org/Resources/Guidelines.aspx>

Announcements

Dr Bartlett- Lifetime Achievement Award Winner

Dr Robert Bartlett received the Lifetime Achievement Award at the 48th Critical Care Congress at SCCM 2019 in San Diego, CA.

Dr Bartlett, the father of ECMO, is renowned for contributions to the fields of pediatric surgery, neonatal, pediatric and adult critical care medicine, and the development of the ECMO/ECLS technology in the lab, then to the routine bedside clinical practices worldwide.

Tens of thousands of patients around the world benefited from this technology over the past several decades. Awards from multiple societies around the globe have recognized Dr Bartlett's work and achievements. Dr Bartlett is the Professor of Surgery Emeritus at University of Michigan where he continues to do his lab and clinical research.

<https://www.youtube.com/watch?v=4ceeOdQRnal&list=PLsb8sp1zaJWoZAWHK0FIAUPkFE6STk7wx&index=13&t=0s>



Plenary Speaker

Extracorporeal Life Support in Critical Care

Robert H. Bartlett, MD
Lifetime Achievement Award Winner
University of Michigan
Ann Arbor, Michigan, USA



ELSO Login Upcoming Changes

NEW: All center log in accounts are scheduled to change to your email addresses along with two-factor authentication this summer.

Lower Volume ECMO Center Working Group

Andrea Gillespie, MD

The median volume per center of Neonatal and Pediatric ECMO in the ELSO registry is less than 10 patients/year. I work in a lower volume center and believe strongly that the quality of ECMO care does not need to be related to volume and that there are intrinsically different issues between lower and higher volume centers. Given that the majority of ECMO is currently done at lower volume centers, I believe that there exists a need to create a lower volume center working group to assist each other with these challenges. If you are an MD, ECMO specialist, coordinator, RN, RRT, or Perfusionist at a neonatal/pediatric center with less than 50 ECMO cases in the last 5 years and are interested in this project, please contact me. Andrea Gillespie, MD Randall Children's Hospital, Portland, Oregon amazegillespie@gmail.com or agillesp@lhs.org 503-577-9649

Adult ECMO Transport Work Group

Erin August, RN, BSN & Cara Agerstrand, MD

Thank you all for the overwhelming responses to the Adult Transport Workgroup!

Information gathering has begun and as a result, the revisions and updates to the transport guidelines are underway!

The annual conference will include a breakout session dedicated to transport. I look forward to seeing everyone in Austin and to those in the Adult ECMO Transport Workgroup, thank you for all that you have contributed thus far as we continue to do great things for our ECMO transport community!

For those interested in learning more about the workgroup, please feel free to contact Erin August at eaugust@mhs.net or Kennethia Banks-Borden at kbanksborden@elso.org

Research Runway

Grant, Grants and more Grants!!

Lakshmi Raman, MD Chair - ELSO Grant Review Committee

ELSO 2019 Research Grant application recipients:

Johns Hopkins
Boston Children's Hospital
Alberta Children's Hospital
St Vincent's Hospital

University of Rochester
Columbia University
University of Pittsburgh Medical Center



Coordinator's Corner

Guillermo Herrera, MBA, RRT-NPS - ELSO Coordinator's Representative

We would like to invite you to take the short survey below. The information is a start on establishing priorities for your needs with ELSO as Coordinators. The survey is not long and will help us immensely to fully understand which direction we need to go first. Our hope is to build an outlet for every aspect of our jobs whether you need assistance starting or more established issues. This will be our starting point. We will present this information at this year's ELSO conference in Austin, TX. Please take the time to take this survey! Thank you all in advance. The link is below:

<https://www.surveymonkey.com/r/LMVZTJG>

Bedside with Bartlett

Robert Bartlett, MD Founder-ELSO, UM Liaison

CASE 1

A 55 year old man sustained out of hospital cardiac arrest/VF and was managed in the ER with VA-ECMO. In the cath lab, angiography and stenting was done on 3 vessels. Four days later he is extubated, awake, with good lung function, VA flow is 4 L/min. He has minimal LV function with blood pressure 85/75. A large LV infarct has evolved with poor contractility. During echo guided trials off the heart cannot support systemic flow. What are the options? What is the best plan?

After 4 days it is unlikely that his heart function will recover so the decision depends on whether the patient is a transplant candidate or not. If the answer is no, continuing ECMO is futile. After discussion with the patient and family, ECMO should be discontinued.

If the patient is a potential transplant candidate, he should be converted to a left ventricular assist device and the search for a donor begins.



DR. BARTLETT IS CONSIDERED BY MANY TO BE THE “FATHER” OF ECMO. HE HAS A VAST AMOUNT OF EXPERIENCE AND HAS FACED MANY CRITICAL SITUATIONS AND DECISIONS. IN THIS NEWSLETTER SERIES, HE WILL JOIN US ON ECMO ROUNDS AT THE BEDSIDE.

A 40-year-old woman has been on V-V ECMO for 2 weeks for viral pneumonia. The lung is starting to recover and the flow is down to 2 L/min. After an episode of coughing she becomes hypotensive and hypoxic. Venovenous flow is rapidly increased to 5 L/min with no improvement. Ventilator settings are increased to pressure 30/0, FiO₂ 100, rate 20 with no improvement. After 15 minutes SaO₂ is 50% and the blood pressure is 40/20. What is happening? What should you do?

Could this be a major bleed? No. Because high VV flows are possible. Could it be acute myocardial failure? Unlikely because cardiac failure could cause hypotension but not sudden hypoxemia. This is classic tension pneumothorax or pericardial tamponade. Even though the VV flow is high, the drainage blood is as red as the return blood. Since the episode occurred after coughing, a tension pneumothorax is the most likely cause. Venting both sides of the chest with a sizeable needle in the upper anterior chest wall usually identifies the problem. A chest drainage tube will be necessary. Turn the ventilator down to very low settings or off altogether. Work out the details with chest x-ray and CT scan. If venting both sides of the chest does not solve the problem, it could be a loculated pneumothorax in another area of the lung or a pericardial tamponade. If ultrasound is available, look for fluid in the pericardium. If it is not, you can try to drain the pericardium through a subxiphoid long needle, but only if you know how to do it. And you can always just open the chest. Good luck!

Is there a question or clinical situation that you would like to ask Dr. Bartlett? Please Send your question to:
newsletter@elso.org

Survey Alley

Online Survey!
Tell us what you think!!

ECMO Provider Survey

The composition of adult ECMO programs appears to vary between medical centers, and there is a lack of published information about various models of ECMO teams. The purpose of this online survey is to examine the composition and training background of ECMO teams performing adult cannulations at US medical centers. The goal is to specifically characterize the makeup and training background of ECMO teams, with particular interest in the use and role of cannulating physicians with a training background other than cardiothoracic surgery. This survey should be completed by those with a sufficient understanding of your program (program directors, coordinators, or active providers) Please take a moment and follow the link below to complete the short survey.

http://uchicago.co1.qualtrics.com/jfe/form/SV_7NUOd2gGaBNu6Ut

For more information please contact: Ari Robert Tallen, M.D. CA3, PGY4 Email: atallen@dacc.uchicago.edu
University of Chicago Medical Center

Survey of informed consent practices amongst neonatal and pediatric ECMO providers

This is a research recruitment post looking for pediatric and neonatal ECMO program directors who are interested in sharing their experiences regarding the informed consent process as it relates to ECMO. ECMO is an intervention that represents a unique challenge to the informed consent process because it is complex, often emergent, fraught with possible complications, and a potentially lengthy treatment despite what is often a relatively short consent process. Due to these challenges, it is difficult to know whether the consent process that is being employed is consistent with the current established goals of informed consent. This study looks to establish an understanding of the current informed consent practices for ECMO amongst pediatric, neonatal, and pediatric cardiac critical care programs.

The purpose of this survey is for research, and your participation is entirely voluntary. Completion of the survey implies your consent. The survey responses are entirely confidential; investigators do not have access to your email or any identifying information unless it is provided by you. All responses that are collected will be anonymous, confidential, and housed in a secure manner.

To participate, please click the following link to proceed to the survey website.

<https://redcap.choa.org/redcap/surveys/?s=H8LP4CAWW7>

Please feel free to contact Megan Land, at meland@emory.edu, at any time should you have questions or concerns.

“Weaning VV ECMO and invasive mechanical ventilation (IMV)” survey

<https://www.surveymonkey.de/r/euroelso-vv-ecmo>

We would like to invite you to participate in the “Weaning VV ECMO and invasive mechanical ventilation (IMV)” survey. The purpose of this survey is to characterize preferences of clinicians regarding discontinuation from VV ECMO and IMV with patients receiving VV ECMO for respiratory failure.

The survey should take less than 8 minutes of your time to complete. Your participation is voluntary and your responses are anonymous. You may withdraw from participation at any time; if you wish to do so or have any questions about the survey, please contact Justyna Swol at jswol@icloud.com. This survey has been approved by the Steering Committee of EuroELSO. Your response is greatly appreciated. Justyna Swol M.D. Ph.D. On behalf of EuroELSO Steering Committee.

Shop all ELSO!

Benefits for ELSO Individual Memberships:

- ✚ Direct participation in the world's largest ECMO community
- ✚ ELSO Member Newsletters and ELSO Registry Data Reports
- ✚ Discounts on one copy of the ELSO Red Book (\$20 off list price) and one copy of the ECMO Specialist Manual (\$5 off)
- ✚ \$50 discount on the Annual ELSO Conference Registration fee (main conference only)
- ✚ Official Certificate of ELSO Membership
- ✚ Discounted registration rates for global ELSO Chapter Conferences (EuroELSO, Asia-Pacific ELSO, Latin-America ELSO, South & West Asia ELSO)
- ✚ Access to the ELSO Online Discussion Board
- ✚ Access to ELSO Online ECMO Knowledge Assessment Examination (Certificate of Completion included upon successful completion)
- ✚ Eligibility to participate in ELSO Committees and Working groups

BECOME A MEMBER

CLICK HERE!

<https://www.elseo.org/AboutUs/JoinELSO.aspx>

ELSO Center Membership include:

- ✚ Direct participation in the world's largest ECMO community
- ✚ ELSO Member Newsletters and ELSO Registry Data Reports
- ✚ Access to the ELSO Online Discussion Board
- ✚ Access to ELSO Online ECMO Knowledge Assessment Examination (Certificate of Completion included upon successful completion)
- ✚ Eligibility to participate in ELSO Committees and Working groups
- ✚ Access to ELSO website for 5 center members
- ✚ Inclusion in the directory and center maps on the ELSO website

ELSO Corporate Membership include:

- ✚ Direct participation in the world's largest ECMO community
- ✚ ELSO Member Newsletters and ELSO Registry Data Reports
- ✚ Official Certificate of ELSO Membership
- ✚ Access to a the ELSO Online Discussion Board
- ✚ Access to ELSO website for 5 corporate members
- ✚ Recognition on the ELSO website with corporate summary and contact information
- ✚ Ability to share important information in the ELSO Newsletter

Upcoming ELSO & Collaborative Meetings

SEECMO 2019 | Johns Hopkins All Children's Hospital St. Petersburg, Florida
Location: Johns Hopkins All Children's Hospital
05/03/2019 - 05/05/2019
Joy Perkins 727-767-3587 jperki12@jhmi.edu

30th Annual ELSO Conference | Hilton Austin Hotel
Location: Austin, Texas
09/12/2019 - 09/15/2019
Kennethia Banks-Borden or Peter Rycus 734-998-6600 kbanksborden@elso.org
<http://www.cvent.com/d/vbqvsl>

AATS Mechanical Support for the Heart and Lung Symposium | Marriott Marquis Houston, Houston, Texas
09/20/2019 - 09/21/2019
<https://www.aats.org/mechanical>
Location: Marriott Marquis Houston, Houston, Texas
Darlene M. Janis 978-252-2200 djanis@aats.org

APELSO 2019 | Riverside Hotel, Bangkok, Thailand
11/20/2019 - 11/22/2019
<http://APELSO2019.com>
Location: Riverside Hotel, Bangkok, Thailand

31st Annual ELSO Conference | Hilton Waikoloa Village - Big Island of Hawai'i
09/23/2020 - 09/26/2020
<https://www.elso.org/Events/2020Hawaii.aspx>
Location: Hilton Waikoloa Village - Big Island of Hawai'i
Kennethia Banks-Borden or Peter Rycus 734-995-6600 kbanksborden@elso.org

Please check out
our website for
all ELSO & Non-
ELSO Information!

[CLICK HERE!](#)

See What's Trending!!!



Like us on Facebook!!

If you use Facebook, please visit our sites and "like" us! We intend to use Facebook as a way to present information not only ELSO members but also to anyone who is interested in our organization. www.facebook.com/ELSO.org

Euro-ELSO Facebook page:
www.facebook.com/EuroELSO



Twitter

Follow us on twitter!
www.twitter.com/ELSOorg



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