



September 2018

ELSO NEWSLETTER



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Letter from The President

Mark Ogino, MD- ELSO President Elect

At the September ELSO meeting, I will assume the presidency of ELSO for the next 2 years. I am excited about the opportunity and look forward to working with all of you. We can all be proud of the leadership ELSO provides to the ECMO community and to critical care medicine.

As you will read in the registry committee updates, the ELSO Quality Reporting Platform was launched last month. This is a great tool that institution can use to monitor their performance and patients' outcome and measure themselves against peer benchmarks.

The adult respiratory failure ECMO simulation course was a great success last month and the upcoming Atlanta Adult ECMO course in November is fully booked. The 29th Annual ELSO conference is upon us starting Thursday September 13th through the 16th with very exciting pre-conference and conference agenda items. Internationally, ELSO is bigger than ever. The LA ELSO conference is taking place in Santiago Chile in November this year and the SWAAC ELSO in Cairo, Egypt in January 2019. The global expansion of ELSO corresponds very well with the message of diversity and inclusion that ELSO endorses and has adopted since its birth.

Of the many important services that ELSO provides, the Registry is unique. The Registry now includes more than 100,000 cases. It documents the history, growth, and outcome of ECMO in a wide variety of clinical applications. The Registry committee is working with industry and regulatory agencies to facilitate the development and approval of devices for ECMO support. Thanks to all of the member centers for providing the data as we enter the next era of advanced life support!

Mark Ogino MD President of ELSO

Committee Updates

Registry Committee:

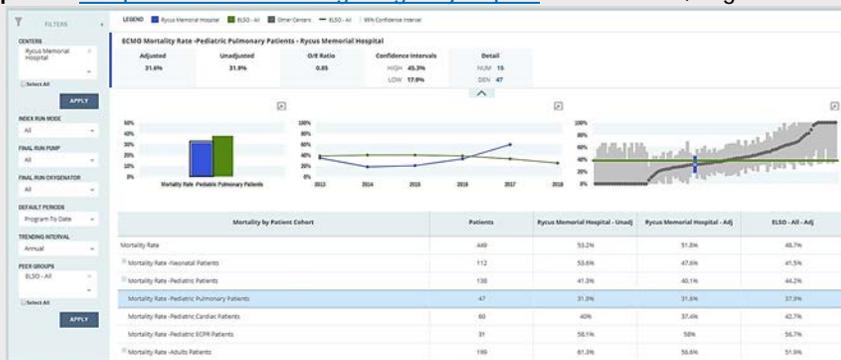
Ryan Barbaro, MD Chair- ELSO Registry

What's new in the Registry? A lot! Most significantly, in collaboration with ArborMetrix, the ELSO Registry launched the **ELSO Quality Reporting Platform** on August 6th 2018. If you have not signed up to use it, sign up and check it out! You can email Support@ELSO.com or ELSOsupport@arbormetrix.com and we will direct you. Note that once you receive the invitation, you will have 48 hours to sign up after that the invitation expires, so sign up as soon as you receive the email. We held three webinars in August to describe how to use the **ELSO Quality Reporting Platform**, and will hold two additional webinars on Thursday September 20th 2 at 7:30 AM and 2:00 PM Eastern Standard Time (EST). In the meantime, the power point and recorded webinar are available to explain how to use the **ELSO Quality Reporting Platform** at <https://www.elseo.org/Registry/QualityReportingPlatform.aspx>.

We want you to know that the anonymity of your center is of primary importance to ELSO and will be preserved. Also, the ELSO Quality Reporting Platform will **not** affect how you enter data. For data entry, continue to use the same application and your ELSO password.

Also new in ELSO Registry is the **ELSO Outcome Reporter** <https://www.elseo.org/Registry.aspx>. To view this, log

in using your ELSO ID and Password. The ELSO Outcome Reporter allows you to query the ELSO Registry to identify how a patient with a specific diagnosis or procedure has performed in the ELSO Registry. For example, if you are considering ECMO in a patient with adenovirus pneumonia and you want to know what proportion of those patients in the ELSO Registry survive, the ELSO Outcome Reporter can answer this question for you.



ELSO Data Entry remains the same but we have added some resources to help you. Most notably, we have the ELSO Database Definitions and ELSO Data Instructions as resources to help guide data entry <https://www.elseo.org/Registry.aspx>.

Conference Committee:

Katarzyna (Kasia) Hryniewicz, MD Chair- Conference Committee

Join us for the pre-conference "ECMO Made Easy!" beginning Thursday, September 13th, at 1:00 PM, through noon Friday, September 14th. The pre-conference will focus on basic and advanced topics related to ECMO indications and management. There will also be a cannulation workshop and a breakout session focusing on patient management that is geared towards RNs, perfusionists and ECMO specialists. You will learn how to start an ECMO program, how to organize your simulations, and how to handle ECMO emergencies.

The main conference will begin at 1:00 PM Friday, September 14th ending Sunday, September 16th at noon.

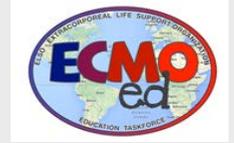
Dr. Jean-Louis Vincent, the world expert on sepsis, will be our keynote speaker and will kick off the Main Conference. Research updates, ECPR, long term lung support, challenging cases and many more exciting topics!

New this year - mentoring sessions for young physicians and ECMO specialists and a heart lab with hands on activity where the participant will be able to explore cow heart in order to get better familiarized with cardiac anatomy, understand the position of Ecmo cannulas and understand placement of durable left ventricular assist device (LVAD) (limited spots available and separate fee will apply)! [Register Now](#)

Logistics & Education Committee:

Bishoy Zakhary, MD Chair- ELSO Logistics & Education

The Education Committee held the Adult ECMO Management Course in Philadelphia 08/22-08/25. The course went very well incorporating hands-on simulation scenarios. The inaugural 1 day ECMO Cannulation Workshop is being held 09/06, 09/07, and 09/08 in Atlanta, GA. We have several cannulation models to teach VV and VA cannulations including a station focusing on dual lumen cannulations using ultrasound and fluoroscopy. Finally, the ECMOed Taskforce, an international collaboration of 32 ECMO education experts will be meeting in Qatar in December with the goal of standardizing ECMO education worldwide.



ELSO is also pleased to announce the development of a new workshop focusing on VV ECMO. This 2-day Advanced Respiratory Failure workshop covers all elements of managing severe hypoxemic and hypercapnic respiratory failure while discussing the growing role of VV ECMO. Topics covered include ventilator management on VV ECMO, awake ambulatory ECMO, ECMO as a bridge to transplant, and the growing role of ECCO2R. Novel and challenging simulation sessions will complement these lectures to provide an immersive and educational experience. The workshop will take place at the Wyndham San Diego Bayside Hotel in San Diego CA on February 15-16, 2019. Registration will be opening soon! Stay tuned for updates!

Technology Committee:

John Toomasian, CCP Chair- ELSO Technology Committee



The focus of the Technology Committee has related primarily to two fronts: the first being continued support of the Registry in the updating, reclassification and addition of new devices used clinically and the second related to government device clearance.

Many international devices that are not available for use in the USA are being added to the registry each month. The trend is expected to continue. Often data is misreported and referred to the Technology Committee for clarification.

One significant example of this is the reporting of the heat exchanger. In modern devices the heat exchanger is integrated into the oxygenator, however some centers are confused and report the water circulation device as the actual heat exchanger. It is hopeful, that over time this understanding/misunderstanding will rectify itself, but until then the Technology Committee will be asked to clarify the data to improve its accuracy.

The second focus of the Technology Committee this past year has related to interfacing with the government and industry to be involved with development guidelines and processes for new long-term devices that will come to market in the future. Nearly every device used for clinical ECMO is used off label and industry as well as government would like to develop pathways to get new devices cleared for use. Industry has questions that ELSO is uniquely able to respond with through its registry. ELSO will be looking to its membership for expertise and volunteers who wish to get involved with this process as an informal subcommittee is expected to be formed. The first step in this effort is a session at the Scottsdale meeting dedicated to government and industry.

The Technology Committee is always looking for new ideas for project and would welcome input from its members. The Technology Committee will have a new Chair in the fall, Dr. Jonathan Haft, who would entertain these new ideas. Please contact the ELSO office if you wish to contribute to this Committee or others that rely on the expertise of our membership.

Technology committee updates continue....

Lastly, the outgoing Technology chair would like to acknowledge the support of the national office, outgoing chairman Mike McMullan, Registry chair Ryan Barbaro and members of the Technology Committee, particularly Alison Weinberg who contributed so significantly to the ongoing efforts of the Committee.

Center of Excellence:

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

The ELSO Award for Excellence in Life Support scoring committee met at the end of March in Dayton, Ohio to review 29 applications for the Award of Excellence and 6 applications for the Path to Excellence. COE recipients will be announced at the 2018 29th Annual ELSO Conference Reception.

Communication Committee:

Thomas Brogan, MD Chair- ELSO Communication Committee

The new 4th Edition of the ECMO Training Manual is scheduled to be released in early fall of 2018. Please check our website for release date. Stay tuned!!

Announcements:

Newly Elected ELSO Steering Committee Members

We want to congratulate the newest members of the ELSO Steering Committee! Terms of service will begin September 2018 at the 29th Annual ELSO Conference in Scottsdale, AZ.

Chair- Mark Ogino, MD
Chair-Elect - Matt Paden, MD
Education Chair - Bishoy Zakhary, MD
Protocols Chair - Lakshmi Ramen, MD
Technology Chair - Jonathan Haft, MD
Coordinator Representative - Guillermo Herrera, MBA, RRT-NPS
Member-at-Large - Darryl Abrams, MD

Thank you Dr. Fortenberry, Dr. Conrad, Dr. Annich, Dr. Agerstrand, Mr. Oldenberg, Mr. Toomasian and Mr. Charette for your dedication and commitment serving on the ELSO steering committee.

Center Memberships

ELSO Center Renewal Information. All center registration is now online through our website. For our existing centers up to January 2018 all memberships were on calendar year and will expire December 31, 2018. Normally dues will be required prior to your center membership expiration. This year only the payments were extended past the expiration of your memberships which was December 31, 2017 because of the new renewal system. Several emails were sent out and many of you have renewed for 2018. On May 15th, 2018 if you have not paid your 2018 membership dues your center will become inactive and you will only be allowed to renew after logging into our website. You will not be able to access the data entry system, discussion board, etc. At this point there will be a late fee associated with the renewal as well.

Later this year as your 2018 membership nears renewal you will get multiple emails reminding you to renew prior to December 31, 2018.

Announcements continued.....

If you have recently joined ELSO your membership will expire one year after you joined and emails will be timed appropriate.

Help Wanted!!

ECMOed is looking for people with a computer science or web-design background to help with online content development. Inquiries please e-mail Dr. Bishoy Zakhary at bzakhary@elso.org



Events

Upcoming ELSO Conferences:

29th Annual ELSO Conference | The Westin Kierland Resort and Spa

Location: Scottsdale, Arizona

09/13/2018 - 09/16/2018

<http://www.cvent.com/d/dtgvlh>

Kennethia Banks-Borden or Peter Rycus 734-998-6600

kbanksborden@elso.org

ELSO LA CONFERENCE | Sheraton Santiago

Santiago Chile

11/08/2018 - 11/10/2018

Andrea Fernandez Andrea@ecls.cl

SWAAC ELSO 2019 | Grand Nile Tower Hotel, Cairo, Egypt

Location: Grand Nile Tower Hotel, Cairo, Egypt

01/15/2019 - 01/19/2019

<http://www.swaaceiso2019.com>

Dr. Akram bdelbary +20-12-211625 52 info@swaaceiso2019.com

EuroELSO 2019 | SAVE THE DATE

Location: Barcelona, Spain

04/10/2019 - 04/13/2019

Euroelso2019@interplan.de +49-40-325092 51

SEECMO 2019 | Johns Hopkins All Children's Hospital St. Petersburg, FL

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

Bedside with Bartlett

Robert Bartlett, MD Founder-ELSO, UM Liaison

A 30-year-old woman is on venovenous support for aspiration pneumonia. There is minimal lung function (tidal volume 60cc). Her arterial saturation has been running 85% but has now dropped to 79% during what appears to be an episode of new infection. The arterial PO₂ is 43. ECMO flow is at maximum for the size of the drainage cannula. We have tried to increase her arterial PO₂ by transfusing to a hematocrit over 40 and increasing the sweep gas oxygen flow to 10 L/min.



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.

She is hyperdynamic with a blood pressure of 130/70 and a heart rate of 120. Someone suggested we should give her a beta blocker to decrease her cardiac output (venous return) and thereby increase her systemic arterial PO₂. Is that a good idea?

The arterial oxygenation in a VV patient is a result of mixing of fully oxygenated ECMO blood with deoxygenated native venous return blood in the right atrium. Decreasing the systemic cardiac output with a B blocker decreases the amount of native venous return relative to the ECMO flow and the resultant mixture will have a higher PO₂. However, the important parameter is systemic oxygen delivery, not arterial PO₂. Decreasing the cardiac output will decrease systemic oxygen delivery even though the arterial PO₂ is higher. As long as systemic oxygen delivery is adequate (more than 3 times consumption) higher cardiac output is better than higher PaO₂. By the way, increasing the sweep flow has no effect on improving oxygenation

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



Neuromonitoring Protocols of Pediatric ECMO

Although over 26,000 newborns have been treated with ECMO since 1975 and survival rates have improved, intracranial injuries remain a major complication. Despite a high frequency of abnormalities identified on neuroimaging, there appears to be little standardization of neuromonitoring protocols during or after treatment (Van Heijst 2014).

We are surveying all ELSO pediatric programs to determine the landscape of clinical practice utilizing neurological testing in this patient population. The following anonymous survey will take **no more than 5 minutes to complete** and we greatly appreciate your participation in this research project. Survey Link: https://cumc.co1.qualtrics.com/jfe/form/SV_6P6VqJWz8cBwAnj

This survey has been approved by our institutions IRB and does not include identifiers for your institution. For further info, please contact the primary investigator of this study:

Jennifer Bain, MD PhD, Assistant Professor, Child Neurology, Neurological Institute of New York

Hot Topics/Discussions

Timothy Maul, PhD, CCP



Fall into A Good Topic

Fall is just around the corner. Leaves will be changing, football is kicking off (pun intended) and your friends on the Discussion Board are waiting to hear from you! It's been a fun Summer on the Board with lots of great questions; but we need your input! Stop by, have a look around, and share your experiences.

Discussion Board Topics of the Month

These are the Summer Sizzlers. Will your question be one of the Fall's Fantastic Four?

- ✚ [CardioHelp Electrical Failure](#): A center experienced a series of electrical issues with CardioHelp and is looking for others' experience.
- ✚ [ECMO Orders](#): What types of order sets are centers using? How detailed are they?
- ✚ [Argatroban Trial](#): A strange and challenging case of a neonatal ECMO patient that was burning through ECMO circuits until the AT3 level was kept over 100%. Share your thoughts and experiences on your anticoagulation challenges.

Discussion Board Contributor of the Month

Congratulations **Charlie Nix** from Northeast Georgia Medial Center for being our Discussion Board Contributor of the Month! Keep sharing your experience!

Coordinator's Corner

Erin August, RN, BSN & Cara Agerstrand, MD

Adult ECMO Transport Work Group

Hello ELSO Member's! The Adult Transport Work Group was a subject during our breakout sessions this past annual conference. We will again be looking to communicate with those who are interested in this work group. This work group will be a collaborative effort on a global basis as we continue to move forward with finding the most innovate and effective ways to reach those in need of ECMO therapy and care within an ECMO center.

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

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)
- ✦ 10% discount on the Annual ELSO Conference Registration fee (main conference only)
- ✦ Official Certificate of ELSO Membership
- ✦ Admission to the Members-Only Business Meeting at the Annual ELSO Conference
- ✦ 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.elso.org/AboutUs/JoinELSO.aspx>

ELSO Center Membership include:

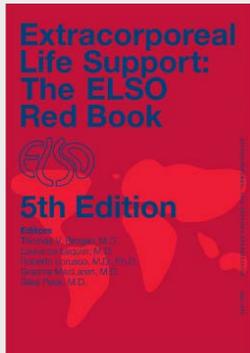
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- ✦ Eligibility to participate in ELSO Committees and Working groups
- ✦ Access to ELSO website for 5 center members
- ✦ Inclusion in the directory and center maps on the ELSO website

ELSO Corporate Membership include:

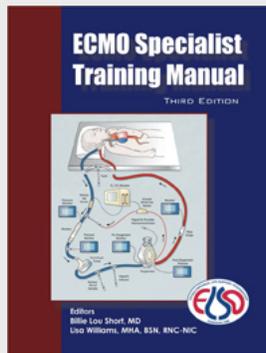
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- ✦ Official Certificate of ELSO Membership
- ✦ Admission to the Members-Only Business Meeting at the Annual ELSO Conference
- ✦ Access to a the ELSO Online Discussion Board
- ✦ Access to ELSO website for 5 corporate members
- ✦ Recognition on the ELSO website with corporate summary and contact information
- Ability to share important information in the ELSO Newsletter

Publications

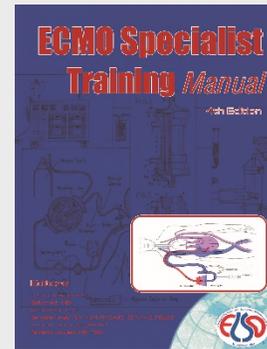
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www.facebook.com/EuroELSO



Twitter

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