**Stay Ahead of Hypotension**
with the Acumen Software Suite for Predictive Decision Support

**Smart. Innovation.**

Learn more at Edwards.com/Acumen

*A hypotensive event is defined as MAP <65 mmHg for a duration of at least one minute.

CAUTION: Federal (United States) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information, including indications, contraindications, warnings, precautions, and adverse events.

Edwards, Edwards Lifesciences, the stylized E logo, Acumen, Acumen Analytics, Acumen HPI, Acumen IQ, HemoSphere, HPI, and Hypotension Prediction Index are trademarks of Edwards Lifesciences Corporation or its affiliates. All other trademarks are the property of their respective owners.

© 2019 Edwards Lifesciences Corporation. All rights reserved. PP-US-4190 v1.0

Edwards Lifesciences • One Edwards Way, Irvine CA 92614 USA • edwards.com
President’s Message
By Timothy Miller, MD, ChB, FRCA, President

ASER has undergone tremendous growth since it was formed in 2014. As such, our five-year anniversary seems like a good time to pause for a moment to assess the direction and priorities of the Society.

With this goal in mind, we recently surveyed the ASER membership to try and understand the wishes of our members. The results pleasingly align with the wishes of myself and the Board in that the key messages were that members value the multidisciplinary nature of the Society and the opportunities for networking and learning from each other. Other benefits that ranked as most valuable were attending the annual congress, and access to implementation resources and guidance.

This information will be used to guide the future growth of the Society, as well as future meetings. The 2020 Annual Congress program is in the final stages of planning, and we have added practical sessions on implementation with an entire track on Day 1 of the Congress devoted to “getting started with ERAS at your facility”. For members with established programs, an alternative track organized by TJ Gan will focus on new and future perioperative technology that can potentially improve perioperative outcomes.

We have also increased opportunities during the congress for networking and discussion between members and the faculty with “meet the experts” roundtable discussions, and an additional welcome reception. As always, we welcome any feedback as we try and continue to improve the congress and the benefits of the Society to members. The final program will be published on the website soon. We hope to see as many members as possible in Baltimore April 15th-17th 2020.

The recent Fall meeting in Orlando on Friday before the ASA was a great success (see article later in this newsletter). As with all ASER meetings the quality of the speakers was high, as was the engagement by the attendees. The highlight for me was the session I was privileged to chair with PJ Devereaux, Lee Fleisher and Mike Grocott debating postoperative troponin monitoring. Truly world-class and engaging. We plan to repeat the meeting next year on Friday October 2nd in Washington DC so please save the date!

Please contact me if you have any questions about the Society. Best wishes, and enjoy reading this edition of ASER Alert.

Tim Miller, MB ChB, FRCA
ASER President
JOIN US!
2020 Annual Congress of Enhanced Recovery and Perioperative Medicine
Hyatt Regency Baltimore
April 15 -17, 2020
For the full conference program, and to register visit: www.aserhq.org/2020
A **new podcast** that explores how the surge in drug shortages—including important anesthetics & analgesics—has disrupted practices across the country.

"The most frustrating part about shortages is that they are always an emergency."

—Erin Fox, PharmD, BCPS, FASHP,

**Episode 1 features:**

Ed Mariano, MD, Chief of Anesthesiology and the Perioperative Care Service at the VA Palo Alto Health Care System

Ruth Landau, MD, Associate Director of the Division of Obstetric Anesthesia at Columbia University

Erin Fox, PharmD, BCPS, FASHP, Senior Director of Drug Information and Support Services at University of Utah Health

Subscribe and listen in the Apple Podcast app or wherever you listen to podcasts.

Search “Anesthesiology News” in your podcast app.
Update on POQI 4: International Consensus on Perioperative Opioid Use

By Dr. Matt McEvoy and Dr. Tim Miller

On January 4–6, 2018, the 4th PeriOperative Quality Initiative (POQI-4) Consensus Conference in collaboration with ASER was held in Nashville, TN. The core topic being considered was appropriate perioperative opioid use, with small groups focusing on: 1) opioid minimization in the opioid-naïve patient, 2) risks of persistent postoperative opioid use, and 3) risk assessment and management of chronic opioid users in the perioperative period. The conference produced three manuscripts containing consensus statements on these topics, all of which were published in the August 2019 edition of Anesthesia & Analgesia along with an accompanying editorial, infographic, and cover art.

The first paper, co-authored by Dr. Chris Wu et al, discussed perioperative opioid minimization in the opioid-naïve patients. (1) The authors note the clear benefits of opioid minimization (less PONV and ileus). Furthermore, after a review of the most up-to-date literature, one very important statement that came from this paper is that opioid-free anesthesia and analgesia is feasible and safe. The authors acknowledged that ongoing research will determine whether this approach has demonstrable benefits to patients such that it can be viewed as superior to opioid minimization. In fact, they proposed a robust research agenda, including questions such as: (1) Are opioids necessary for routine anesthesia and analgesia? (2) Are there risks associated with opioid-free anesthesia and analgesia? (3) What are the effective strategies for prevention of persistent postoperative opioid use? (4) Does modifying current opioid prescription practices prevent persistent postoperative opioid use? (5) What is the optimal comprehensive multimodal analgesia plan? and (6) Can opioid-free or opioid minimization principles extend to the post-discharge period?


The second paper, co-authored by Dr. Mike Kent et al, discussed the topic of persistent postoperative opioid use, or PPOU. (2) This group extensively reviewed the literature on this topic and presented a summary of the best definition of PPOU, along with a description of the incidence and risk factors associated with developing PPOU and also health system initiatives that could be undertaken to address this phenomenon. The authors took a unique approach to defining PPOU by taking into consideration the opioid use status of the patient prior to surgery. Their definitions for PPOU are: Opioid-naïve patients*: having used opioids for 60d during postoperative days 90–365; Opioid users before surgery: any increase in opioid use during postoperative days 90–365, relative to opioid use in the 90d before surgery. The infographic above (Figure 1) shows the incidence of PPOU and defined risk factors for developing this problem.

Manuscript: https://www.ncbi.nlm.nih.gov/pubmed/30897590
The final paper, co-authored by Dr. David Edwards et al., discussed how to best assess and manage chronic opioid users in the perioperative period. The group did an excellent job creating a new risk scoring system for the perioperative period, the O-NET+ system, which stands for opioid-naïve, exposed, or tolerant, with definitions for each according to the average opioid MMEs consumed by a patient in the 90 days before surgery (see Figure 2). In addition to the O-NET ratings, the group produced an easy to understand set of risk modifiers that would increase the likelihood of opioid-related adverse events in the perioperative period. The challenge can be what to do with the complex pain patient in the perioperative period.

References


On October 18, 2019, The Perioperative Medicine and Enhanced Recovery meeting was held in Orlando, Florida in collaboration with the American Society of Anesthesiologists Perioperative Surgical Home. The annual fall meeting, chaired by Dr. Tong J (TJ) Gan and Dr. Timothy Miller, showcased the latest advances in Enhanced Recovery. The full day event featured 4 sessions, with 16 national and international speakers. This 1-day symposium was integral to informing and fostering dialogue among anesthesiologists, surgeons, nurses, and other relevant stakeholders regarding current practice and future trends. The conference opened with hot topics in Enhanced Recovery After Surgery (ERAS) pathways, followed by sessions addressing perioperative myocardial injury, improving quality and creating successful ERAS pathways.

**Session 1: Hot Topics in ERAS Pathways**

The opening session, Current Practice in ERAS Pathways, presented hot topics in ERAS. Dr. Denny Levett began with “Prehabilitation,” followed by Dr. Andrew Shaw’s presentation of updated information on acute kidney injury, Dr. Timothy Miller’s discussion on the current evidence surrounding perioperative fluid and hemodynamic management, and Dr. Eugene Viscusi’s examination of the options for opioid free anesthesia.

Research and development into individual elements of ERAS pathways is crucial to progress. Intuitively, it makes sense that patients need to be “prepped” to equip themselves with the stress related to surgery. Yet, given the frequency in which patients often have little time to prepare, uncertainty remains regarding which avenues to pursue for the biggest impact. Dr. Levett showed that in as little as 2 weeks, even a small amount of physical activity can have positive effects on the sedentary patient. Also highlighted were trials related to fluid variability, the confusion surrounding fluid management, the American Society for Enhanced Recovery (ASER) and Perioperative Quality Initiative (POQI) joint consensus recommendations, and a matrix for matching patient needs to hemodynamic monitoring. In Dr. Miller’s words, “aim for 1-2 liter positive balance in low risk patients, fill the tank then squeeze, and maintain MAP > 65 mmHg.” The session closed with Dr. Viscusi’s presentation on opioid free anesthesia, a topic of significant interest in the current opioid epidemic crisis we are facing.

**Session 2: Perioperative Myocardial Injury**

Drs. PJ Devereaux, Lee Fleisher, and Michael Grocott discussed myocardial injury in non-cardiac surgery (MINS), including the implications of test results. The Vascular Events in Noncardiac Surgery Patients Cohort Evaluation (VISION) Study was presented, which showed that among non-cardiac surgical patients, an elevated high-sensitivity troponin level without overt ischemia was associated with 30-day mortality. This could potentially be minimized with statins, aspirin and Dabigatran. Also discussed was the PeriOperative ISchemic Evaluation-3 Trial (POISE-3) which is investigating the use of tranexamic acid versus placebo on multiple outcomes, one of which is MINS.

**Session 3: How to Improve Quality within ERAS Pathways**

The surgeon and anesthesiologist perspectives on improving quality were presented by Drs. Clifford Ko and Christopher Steel, respectively. As Dr. Ko summarized, there are 3 key steps to improving patient care and efficiency. These are 1) standardization, 2) use of data, and 3) ensuring adequate resources, infrastructure and organization to succeed. Dr. Ko emphasized the American College of Surgeons (ACS) “Redbook” standards, a publication by the ACS on developing effective quality programs. Dr. Steel described experience at his institution employing a coordinated effort in perioperative care for total joint replacements. He stressed the most important goal in creating effective teams is to understand each members goals and work to align these with the overall objectives. Determining, understanding, and focusing on information that is important to each team member fosters involvement and avoid “blind spots” in care optimization.

Dr. Anthony Senagore described stress-induced postoperative hyperglycemia, causes and mitigating factors, and the rationale behind pre-operative carbohydrate loading. Of note, were references to the Preoperative Oral Carbohydrate Load Versus Placebo in Major Elective Abdominal Surgery (PROCY) study.
and a recently presented abstract at the 2019 annual ASER conference describing low-dose (25 mg) preoperative carb loading in colorectal surgical patients.6

Also presented was “ERAS in Cancer Patients,” by Dr. Vijaya Gottumukkala and “Postop Bowel Recovery and Management of PONV,” by Dr. Garry Brydges. Dr. Gottumukkala discussed the global epidemiology and perioperative implications of cancer. He illustrated perioperative strategies that might impact oncological outcomes and re-iterated the role of ERAS in this patient population. While there is currently no evidence favoring a single anesthetic or analgesic technique to improve cancer outcomes, we continue to learn more about the known factors and those which are ill-defined. As ERAS pathways advance with evidence-based research, next directions should delve into the impact on cancer-specific survival rates.

**Session 4: Recipes for Success with ERAS Pathways**

The last session rounded out the day with talks on implementing and improving ERAS pathways. Drawing on her own experience, Dr. Traci Hedrick shared barriers to implementation of ERAS at her hospital and offered pearls to engage leadership and teams. She reminded attendees that execution takes time and there is no one size fits all ERAS pathway. ERAS pathways must be individualized to local needs. Keeping things simple, regular feedback and education and celebrating victories (no matter how small), are essential to promoting and sustaining change.

Dr. Julie Thacker shared insight on preventable complications and readmissions. A key aspect to preventing complications means understanding how different groups define a complication and knowing the etiology. Dr. Christopher Hughes discussed the role of neuromonitoring in reducing postoperative delirium. No simple objective tests exist for measuring delirium. Drawing on the ENGAGES randomized trial7 and the POQI-6 statement, Dr. Hughes described a pathway for improving postoperative delirium by assessing for risk preoperatively, the use of electroencephalography monitoring during anesthesia, and postoperative assessment.

The session ended with Dr. Matthew McEvoy's presentation on optimizing high-risk surgical patients for surgery. Though many centers are optimizing patients, there remain challenges in integrating all components. In an engaging presentation, Dr. McEvoy described the Hi-RiSE (high-risk surgical encounter) Preop Clinic at his institution. He highlighted key components, such as anemia assessment, smoking cessation to reduce post-operative pulmonary complications, nutrition, and diabetes management to reduce insulin resistance and hyperglycemia. He laid out detailed algorithms for these elements.

The 2019 Perioperative and Enhanced Recovery meeting was engaging and thought provoking. Attendees were presented with emerging topics in ERAS. Though the evidence-base for ERAS pathways is growing, individual institutions still face challenges in implementation and compliance. As ERAS pathways evolve, future directions should focus on high-quality implementation; addressing individual institutional challenges; leveraging information technology to support data collection and audit of current pathways, and strengthening the evidence-base for individual ERAS elements. The 2020 Annual Congress of Enhanced Recovery and Perioperative Medicine will be held in Baltimore, MD, April 15 -17, 2020.

**References**


ASER BENEFITS

- Network with Experts in Enhanced Recovery and Peri-operative Medicine
  Meet and stay connected with experts in the field.

- Implementation Consultation and Guidance
  Participate in the ASER Leadership Forum where a team of implementation experts will give advice and guidance so as to ensure your hospital's transition goes as smooth as possible.

- Implementation Resource
  Get access to implementation resources such as the ASER Enhanced Recovery Implementation Guide, patient education materials, enhance recovery pathway protocols and more.

- Access to Enhanced Recovery Publications and Ongoing Research
  Check out Perioperative Medicine, the official journal of ASER. Keep up to date with enhanced recovery news. Read our newsletter ASER Alert.

- Professional Development
  Join us at our ASER Annual Congress Meeting and receive CME. At this congress, health professionals from all over the world share best practices, new research and developments, and implementation experiences. Members will receive annual meeting discounts.

- Get involved
  Join the many committees that ASER has to offer.

ABOUT ASER

The American Society for Enhanced Recovery is a nonprofit organization with international membership dedicated to the practice of enhanced recovery in the perioperative patient and committed to research and education in perioperative medicine and enhanced recovery.

THE ASER MISSION

To advance the practice of perioperative enhanced recovery by contributing to its growth, encouraging research, and promoting education, public policies, programs, and scientific progress.

ASER HISTORY

The medical field is always looking for ways to provide increased access to care for an ever growing patient population with a broad range of complex pathologies. However, with increasing patient comorbidities and complex surgeries came prolonged hospital stays, issues with pain management, and difficult recoveries that delayed patient discharges with subsequent patient dissatisfaction. This led to the concept of enhanced recovery, or fast-tracking patients through the perioperative process. By focusing on patient nutrition, perioperative fluid status, early postoperative mobilization, and appropriate pain control through the use of multi-modal analgesia, patients are experiencing faster recovery times and shortened hospital stays. Starting solely in colorectal surgery, enhanced recovery has broadened throughout the surgical spectrum, now including many other surgical subspecialties. The American Society for Enhanced Recovery was founded to become a worldwide leader in furthering education and research with the common vision to find the best way of shepherding patients through the perioperative arena while achieving the goal of faster patient recovery and improved patient satisfaction.

ASER MEMBERSHIP

BECOME AN ASER MEMBER TODAY

☎️ 847-495-9119
✉️ info@aserhq.org

2111 Chestnut Avenue, Suite 145
Glenview, IL 60025