

## International Experience and Outcomes of OR Emergency Manual Implementation

Dylan S. Irvine, BS    Jeffrey Huang, MD, FASA

The implementation of the emergency manual (EM) as a perioperative medicine tool has been critical in improving patient safety during anesthesia administration. An EM indexes many resources to provide an anesthesia delivery plan that is synchronous between both the individuals of the anesthesia care team and other OR personnel (*Cureus* 2019;11:e4888; *APSF Newsletter* 2016;31:43-5; *Anesth Analg* 2013;117:1149-61; *Anesth Analg* 2016;123:641-9). The EM does not eliminate the importance of continuous knowledge acquisition, but rather serves as a memory aid during nonroutine critical events in patient care in order to minimize errors and optimize outcomes (*Cureus* 2019;11:e4888; *Anesth Analg* 2013;117:1149-61; *Anesth Analg* 2016;123:641-9).

The reliability of the EM as a patient safety tool has been extensively studied. Simulation-based studies from Harvard University have demonstrated that lifesaving processes of care were four to six times more likely to be implemented when EMs were utilized (*N Engl J Med* 2013;368:246-53). In the United States, most institutions have gradually achieved significant cultural acceptance to integrate EMs into their practice and training.

### Introduction of EMs to China

Although there is increasing international awareness of the advantages of EM utilization, the implementation of EMs in the clinical setting is challenging. Access to EMs within ORs has been implemented



The 2018 Chinese Association of Anesthesiologists Annual Meeting Operating Room Emergency Manuals simulation instructor training workshop.

in China through free EM distribution and the introduction of protocols for EM placement (*APSF Newsletter* 2016;31:43-5; *APSF Newsletter* 2020;35:62-3). Anesthesia EMs that have been translated into Chinese and effectively adopted in anesthesia practice in China include the Stanford Emergency Manual, Harvard Ariadne Lab Operating Room Crisis Checklists, Society for Pediatric Anesthesia PediCrisis Critical Event Checklists, and Stanford Obstetric Emergency Manuals (*APSF Newsletter* 2016;31:43-5; *APSF Newsletter* 2017;32:53-4). All these manuals were published in the New Youth Anesthesia Forum, and new versions are translated and updated immediately.

This method of free downloads and access to anesthesia providers was an ef-

fective strategy to eliminate the barriers of cost and language in distributing EMs to a large audience (*APSF Newsletter* 2016;31:43-5). Over 125,000 copies were downloaded within the first six months of the first Chinese version of the Stanford EM publication. Thirty-eight thousand copies of the third Chinese version of EM were downloaded. These numbers do not include the large number of individuals who received their copies through email distribution lists and social networking (*APSF Newsletter* 2016;31:43-5).

Media platform promotion and education are other keys to successful implementation of EMs. Operating room EM education series were organized and broadcasted from 2017 to 2019 by the New Youth Anesthesia Forum, covering



**Dylan S. Irvine, BS**

Doctor of Osteopathic Medicine (DO) Candidate, OMS-3, Nova Southeastern University, Dr. Kiran C. Patel College of Osteopathic Medicine, Davie, Florida.



**Jeffrey Huang, MD, FASA**

APSF Committee on Education and Training, Senior Member of Anesthesiology, and Professor of Oncological Science, Moffitt Cancer Center, University of South Florida, Morsani College of Medicine, Tampa, Florida.

22 critical events and attracting 130,000 views. A series of OB emergency management online lectures featuring 15 speakers was organized by the Chinese American Society of Anesthesiology and the New Youth Anesthesia Forum. To date, these lectures have attracted 2.51 million views ([asamonitor.pub/3kBmQkQ](http://asamonitor.pub/3kBmQkQ)).

One of the largest reported barriers to EM use during a critical event is a lack of sufficient simulation training programs ([asamonitor.pub/3IEWA0T](http://asamonitor.pub/3IEWA0T)). In China, a simulation training competition was founded by the Zhongshan City Society of Anesthesiology (*APSF Newsletter* 2017;32:53-4). Finalists from seven hospitals competed in a half-day event that focused on crisis resource management skills using EMs (*APSF Newsletter* 2017;32:53-4). The event served as a catalyst to encourage facilities to organize simulation training for OR EM implementation. A

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### Trauma Anesthesiology Society

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- Enhance efforts to obtain unrestricted grants, funding, and donations to provide research seed grants
- Increase research component of annual meeting
  - Added poster presentations and awards at TASCAN 2023 in New Orleans, Louisiana
- Notify membership when TAS member has trauma-related publications

- Develop TAS Trauma Adjusted ASA Physical Status Classification System
- Guide development and consensus agreement of standards for Trauma Anesthesiology Fellowship
- Enhance external relationships
  - Partner with ACS to provide TAS credentialed anesthesiology site reviewers for trauma accreditation
- Formalize partnerships with ASA affiliate member societies with significant involvement in trauma care such as SNACC, SOCCA, ASRA, SPA, and Uniformed Services

- Enhance membership value for international members and build relationships with international trauma-related societies
- Thank you for your interest and engagement. While we have accomplished much in a relatively short time, TAS must continue to strive to add value for our members. TAS is committed to developing and supporting a robustly diverse, equitable, and inclusive community, where all members feel a sense of belonging and have an opportunity to participate. I very much look forward to working with you all as we continue this journey to build

and define TAS, the ASA's newest subspecialty component society. When at the ASA annual meeting, make certain to include our annual meeting (TASCAN) in your plans, this year on October 13 in San Francisco, California, with a focus upon neurologic considerations. Come for the educational and research opportunities and leave with a host of new friends! Please visit us at [TASHQ.org](http://TASHQ.org) for further information and membership. Additionally, should you desire, you may reach out to me directly at [james.cain.tas@gmail.com](mailto:james.cain.tas@gmail.com). ■

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study completed one year later found that among those who participated in the competition, 85% reported using EMs in at least one OR critical event, a statistically significant increase (*Cureus* 2018;10:e3188).

An Anesthesia Crisis Resource Management Workshop was organized by the Department of Anesthesiology, Peking University People's Hospital in Beijing, China, in 2017 to demonstrate the utility of EMs as a resource for education and clinical care (*APSF Newsletter* 2017;32:53-4). The participants could become qualified teachers to organize and

**“The Chinese Association of Anesthesiologists and the Chinese Society of Anesthesiology, two of the top anesthesia societies in China, have encouraged anesthesiologists and OR personnel to incorporate the use of EMs while managing critical events and have supported the development of multidisciplinary training to facilitate successful EM utilization.”**

teach simulations at their own institutions (*APSF Newsletter* 2017;32:53-4).

Proponents of EM implementation in China realized that further awareness regarding EM use could be promoted by demonstration-based methods at anesthesiology



Emergency manuals simulation training competition participants and judges in Zhongshan City, Guangdong, China.

conferences (*APSF Newsletter* 2017;32:53-4). An EM simulation demonstration was included in a regional anesthesia meeting by the Department of Anesthesia, Xiangyang Central Hospital (*APSF Newsletter* 2017;32:53-4). Participants found that expert demonstration appears to be similar to simulation participation and was superior to didactics for teaching tenets involving the application of teamwork skills (*APSF Newsletter* 2017;32:53-4).

“Training a trainer” is an efficient way to spread new medical practices, and having trained individuals at every hospital can eliminate the fees, travel costs, and time-

consuming nature of simulation training workshops, which are often multiday events (*APSF Newsletter* 2018;33:60-1). During a Chinese Association of Anesthesiologists annual meeting, attendees were able to participate in a two-hour EM simulation instructor training course, where they became qualified teachers (*APSF Newsletter* 2018;33:60-1). Participants engaged in a series of three standardized simulation scenarios (*APSF Newsletter* 2018;33:60-1). A post-course evaluation survey found that 80% of participants felt that they obtained the basic skills of EM simulation training, and 97% of participants agreed that



Emergency manuals simulation training in Boai Hospital, Zhongshan City, Guangdong, China.

they would organize EM simulation training at their hospitals (*APSF Newsletter* 2018;33:60-1). This technique could be applied at various regional or national meetings to train more trainers.

The support of official organizations is imperative to successfully implement EMs. The Chinese Association of Anesthesiologists and the Chinese Society of Anesthesiology, two of the top anesthesia societies in China, have encouraged anesthesiologists and OR personnel to incorporate the use of EMs while managing critical events and have supported the development of multidisciplinary training to facilitate successful EM utilization.

## Results

Following the introduction of Chinese-translated EMs, a multi-institute study was conducted to assess the utilization of EMs during critical events in ORs (*Simul Healthc* 2018;13:253-60). The results of this study were consistent with data from EM utilization in the U.S. (*Anesth Analg* 2016;123:641-9). Results of the study demonstrated that more than 70% of respondents reported using EMs during at least one critical event within the past six months in China (*Simul Healthc* 2018;13:253-60); 88% of respondents reported participating in self-review or group study of EMs at least once within the past six months (*Simul Healthc* 2018;13:253-60). Nearly 70% reported participating in multidisciplinary simulation training (*Simul Healthc* 2018;13:253-60). EM has become an efficient and highly utilized tool for anesthesia providers to study and train and to use in the OR.

In summary, EMs have been well received by anesthesia professionals in China. Many of these professionals have access to an EM at each anesthesia station, and through multidisciplinary training, a great number of clinicians became proficient in the utilization of EMs. It is our hope that other countries will utilize similar methods to help encourage appropriate training to adopt the use of OR EMs. This training will allow anesthesiologists to optimize crisis management skills and further improve patient safety. ■

## Anesthesiology in the News

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### Media covers latest research presented at ASA® ADVANCE 2023

In January, ASA promoted research presented during ASA® ADVANCE 2023: The Anesthesiology Business Event, securing 411 media placements with the potential to reach an estimated audience of more than 162.2 million. The research, which was picked up by national and local consumer outlets as

well as top trade outlets, covered topics such as the financial impact of inaccurate anesthesia start times and how anesthesiology residency positions can reduce workforce shortages and staffing costs.

The coverage included an article on the news site HealthDay on the inaccurate anesthesia start times study that was picked up by 308 outlets, including Physician's Weekly, Buffalo News (Buffalo, New York), the St. Louis Post-Dispatch, the Arizona Daily Star (Tucson, Arizona), Modern Clinician, Pulmonology Advisor, and the

Douglas County Sentinel (Douglasville, Georgia), among other outlets.

### Physician Anesthesiologists Week promotes physician-led care for Veterans

During Physician Anesthesiologists Week, January 29-February 4, ASA distributed a mat release (a feature article appearing in newspapers or online to complement staff-written material) urging Americans to contact federal lawmakers on the importance of maintaining physician-led anesthesia care for our nation's Veterans.

The release garnered 1,096 online placements, including the Chicago Tribune, Houston Chronicle, LA Times, San Francisco Chronicle, SF Gate, and Florida Daily Herald, reaching an audience of 164 million. The coverage featured a quote from ASA President Michael W. Champeau, MD, FAAP, FASA, who noted: “VA’s proposal unfairly lowers the standard of care for our Veterans and it’s clear that no science or necessity supports a change. Our Veterans deserve nothing but the best health care. That’s why we’re telling VA to stop this risky plan.” ■