

Looking Out for Your Colleagues: Real-Time Debriefing After Critical Events

Alexander F. Arriaga, MD, MPH, ScD

Peroperative crisis events (e.g., cardiac arrest, anaphylaxis) can have a lasting impact on anesthesia professionals. Available literature suggests that anesthesiologists may experience at least one unanticipated perioperative death or serious injury over the course of their career, and millions of other perioperative crises may occur annually (*Anesth Analg* 2012;114:596-603; *Anesthesiol Clin* 2020;38:801-20). This phenomenon of being a frequent event in aggregate yet relatively infrequent at the individual level is a recipe for potential stress, burn-out, and longer-term effects for perioperative professionals who can become the second victims of the event (*Anesthesiol Clin* 2020;38:801-20).

In this *ASA Monitor* article on the theme of “Discovering Alignment,” it is helpful to consider proximal critical event debriefing, a practice with great potential to positively alter the trajectory of how a perioperative crisis impacts a health care professional. Anesthesiologists have a long history of being pioneers in patient safety and crisis resource management, for which critical event debriefing can be seen as a component (*Anesthesiology* 1978;49:399-406; Crisis management in anesthesiology. Second edition, 2015; To Err Is Human: Building a Safer Health System. 2000; Still not safe: patient safety and the middle -managing of American medicine. 2020; *N Engl J Med* 2013;368:246-53). I am honored to be the inaugural recipient of the co-sponsored APSF-FAER Mentored Research Training Grant (MRTG) from the Anesthesia Patient Safety Foundation (APSF) and the Foundation for Anesthesia Education and Research (FAER), specifically on the topic of proximal critical event debriefing. This involves work on methods to improve the quality/frequency of critical event debriefing, when indicated, utilizing multidisciplinary expertise across domains such as medical education, patient safety, medical anthropology, and simulation-based training, and the implementation sciences.

A point-of-care intervention as simple as a drop of water (Figure), when delivered at a key moment, has the potential for broad impact. While a drop of water may seem small in time and space, it can have



Real-time debriefing after perioperative critical events can have beneficial effects at the individual, team, and system level.

a substantial ripple effect (*BMJ Qual Saf* 2021;30:689-93). To quote patient safety leaders Drs. May Pian-Smith and Jeffrey Cooper: “We strongly believe that routine debriefing after all critical events is the right thing to do [...] questions [for how to best do it] can be best answered with research on this topic” (*Anesthesiology* 2019;130:867-9). This article mentions some of the evidence and literature behind proximal critical event debriefing for those considering implementing or improving this practice at their institution.

Before discussing the benefits of proximal critical event debriefing, it is worth briefly mentioning terminology, acknowledging there may be institution-specific/local variation. Post-Event Debriefing is “a discussion of actions and thought processes after an event to promote reflective learning and improved clinical performance” (*JAMA* 2014;312:2333-4). Proximal Critical Event Debriefing (also referred to as “hot” debriefing or “real-time” debriefing) refers to debriefing about a critical event shortly after the event or care associated with it

(*Anesthesiology* 2019;130:1039-48; *Curr Opin Crit Care* 2013;19:188-94). There is not a universal time mark that differentiates “proximal” versus “distal” (also known as “cold”) debriefing (where clinicians have had more time to process the event), although some original research on proximal debriefing focused on debriefs that occurred immediately after the event/case/shift or within about 48 hours (*Anesthesiol Clin* 2020;38:801-20). Critical Incident Stress Debriefing refers to debriefing targeted at alleviating the acute stress response from the event (*JEMS* 1983;8:36-9; *Cochrane Database Syst Rev* 2002:CD000560). These specialized terms may help distinguish the nuances of what goes beyond routine debriefing after every single case, such as what is part of the World Health Organization’s Surgical Safety Checklist (*N Engl J Med* 2009;360:491-9). To avoid potential iatrogenic emotional effects from the debriefing itself (particularly in regard to critical incident stress debriefing), debriefing practices should be adopted and customized to available local resources and provider training



Alexander F. Arriaga, MD, MPH, ScD
 Assistant Professor, Harvard Medical School, Brigham and Women’s Hospital, Boston.
 @AlexArriagaMD

(*Anesthesiol Clin* 2020;38:801-20; *Cochrane Database Syst Rev* 2002:CD000560; *Crit Care* 2002;6:88).

In the setting of a proper implementation strategy, adaptation of proximal critical event debriefing practices can have benefits at the individual, team, and system level (*Anesthesiol Clin* 2020;38:801-20). It offers opportunities for 360-degree feedback and addressing elements from the Accreditation Council for Graduate Medical Education (ACGME) core competencies (i.e., medical knowledge, patient care, practice-based learning, interpersonal skills and communication, professionalism, and systems-based practice) (*JAMA* 2014;312:2333-4). It can facilitate mastery learning as well as the identification of systems gaps that can improve overall quality and safety (*Acad Med* 2015;90:1501-8; *Simul Healthc* 2019;14:333-42). In addition, debriefing may help clinician well-being. In a national survey study of the emotional impact of perioperative catastrophes on anesthesiologists, almost 90% of respondents felt that debriefing with the entire OR team would be helpful for future events, with close to 70% feeling this should be a standard operating procedure (*Anesth Analg* 2012;114:596-603). In an Australian study



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Figure

Potential elements for debriefing after a perioperative event include (but are not limited to):

1. **Welfare check:**
 - Assessing if team members are OK to continue providing care
2. **Acute/Short-term corrections:**
 - Matters to be addressed before next case?
 - Clinical patient care needs?
3. **Team reactions and reflection:**
 - Summarize case and listen to team member reactions
 - Plus/Delta: Matters that went well and matters that could be improved
4. **Education:**
 - Lessons learned from the event and the debriefing
5. **Resource awareness and longer-term needs:**
 - Improve awareness of local peer-support and employee assistance resources
 - Assess if any follow-up needed (e.g., safety/QI report)



While a drop of water may seem small in time and space, it can have a substantial ripple effect.

Elements to consider for debriefing just after a perioperative critical event. From Chen YK, Arriaga A. Crisis checklists in emergency medicine: another step forward for cognitive aids. *BMJ Qual Saf Epub ahead of print.* doi:10.1136/bmjqs-2021-013203; with permission. Embedded image of water drop: Restivo D. Water Drop impact on water surface. Available at commons.wikimedia.org/wiki/File:Water_drop_impact_on_a_water-surface_-__(5).jpg. Accessed 13 Feb 2021. With permission via Creative Commons CC BY-SA 2.0 License (creativecommons.org/licenses/by-sa/2.0/legalcode). QI: quality improvement.

of consultant anesthesiologists surrounding hypothetical crisis scenarios, over 80% agreed that “debriefing the OR team immediately after a perioperative death is advisable” (*Anesth Analg* 2016;122:1614-24). When indicated, the time shortly after a critical event provides an opportunity to look out for our colleagues and consider the benefits that a short debriefing can provide.

One should not assume that proximal critical event debriefing is already taking place, even after the most serious perioperative crises. In a mixed-methods study of perioperative crisis events at an academic medical center, the debriefing rate was less than 50% (*Anesthesiology* 2019;130:1039-48). In a survey of anesthesiologists in Canada, less than 15% of those reporting an unanticipated perioperative death reported participating in an OR debriefing or similar process (*Can J Anaesth* 2010;57:361-7). The reasons for this are poorly understood but go well beyond production pressure (*Anesthesiol Clin* 2020;38:801-20). Perioperative crises containing a critical communication breakdown have been associated with lower debriefing rates (*Anesthesiology* 2019;130:1039-48). Catastrophic perioperative events resulting from a medical error are associated with a much larger impact on the clinician, yet there is no evidence that these events are more likely to be debriefed (*Anesth Analg* 2016;122:1614-24).

Anesthesia professionals have an opportunity to markedly change culture regarding the practice of proximal critical event debriefing. When it comes to medical crises, anesthesiology experts have a ubiquitous nature across a health system. It is not uncommon for an anesthesia pro-

fessional to manage code blue scenarios, in the absence of the institution’s dedicated code blue team, while also being a member of these code blue teams for hospitalized patients across the rest of the institution. A policy-based debriefing intervention involving the institution’s anesthesia team has potential for wide and rapid spread. There has also been a growing acknowledgement that an anesthesiologist’s management of a medical crisis can be much more advanced than standard advanced cardiovascular life support (ACLS) (*Can J Anaesth* 2012;59:586-603; *Anesth Analg* 2018;126:876-88; *Anesth Analg* 2018;126:889-903). In addition to advanced airway, vasopressor, ultrasound-based, and other intra-event management techniques, anesthesia professionals can also be the advanced experts in some of the immediate post-event aftermath. During this critical moment that involves internal dialogue, consideration of lessons learned, event documentation, and the initial processing of the event into a packaged memory, debriefing can alter the trajectory the event has on the clinician (*Acad Med* 2020;95:1089-97). The APSF and FAER have altered the trajectory of my own career as a leader within the patient safety community, and I look forward to utilizing this opportunity to help alter the trajectory of others. ■

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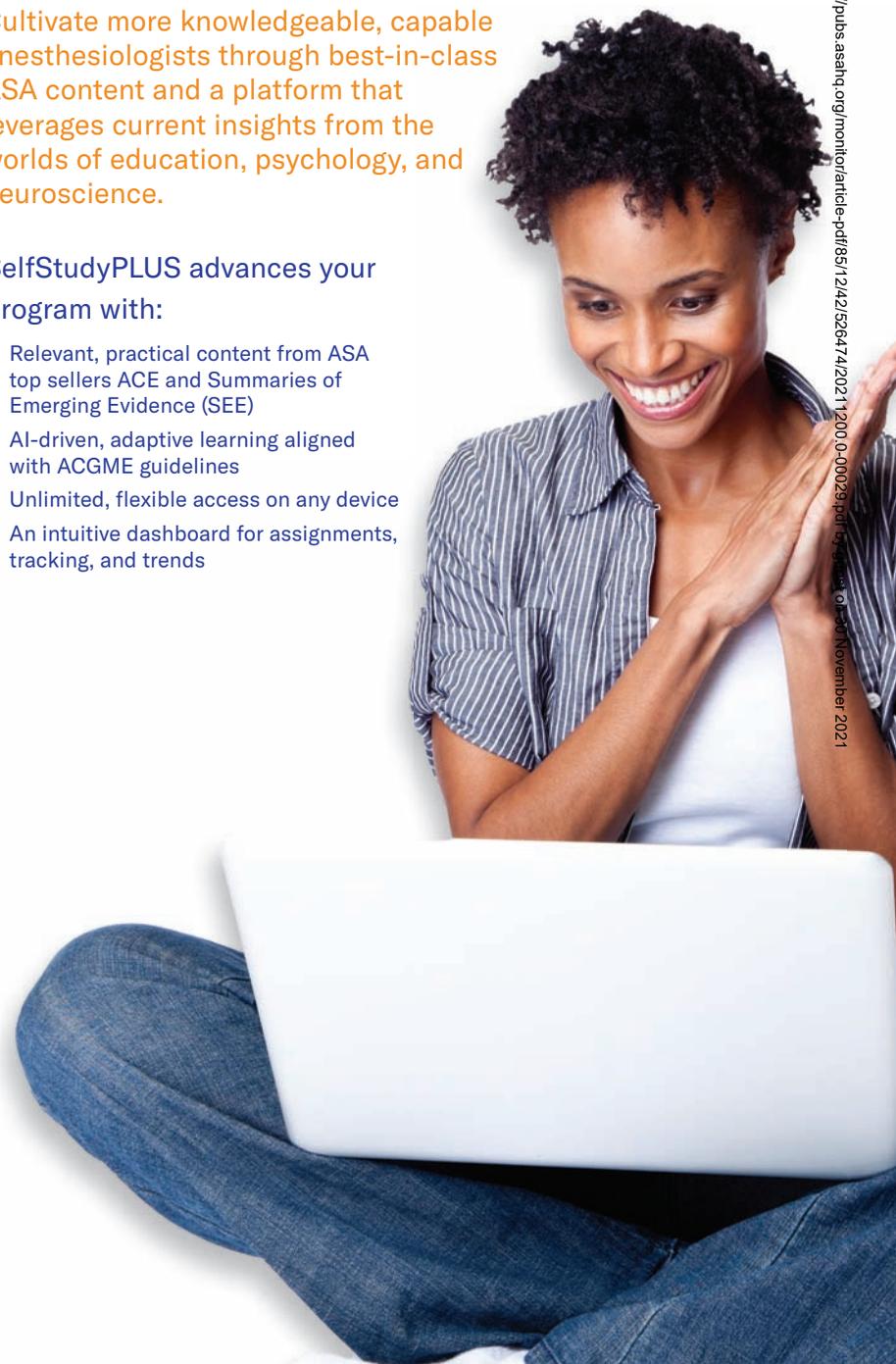
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