**When Bad Things Happen to Good Anesthesiologists**

# Navigating the Aftermath of an Unexpected Intraoperative Death

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As the patient's blood pressure and heart rate precipitously drop, you, the anesthesiologist, are becoming tachycardic. You take a deep breath and spring into action. Years of education, training, and complex cases have prepared you to intervene. You call for help, start fluids, and administer life-saving medications. Nothing seems to be helping. Before you know it, you're asking the surgeon to start chest compressions. You perform countless rounds of ACLS, explore every single "H and T," and despite your best efforts, your patient dies. You speak the words you never thought you would have to say: "Time of death: 19:42." But what happens next? How are you supposed to feel or act or do your job? When should you talk with the patient's family? When should you debrief with your team? How do you move forward?

Anesthesiologists function at the intersection of life and death. Medical school, residency, and years of practice prepare you to prevent the worst – to intervene and save the day. But what happens when it's not enough? We are rarely taught how to process the aftermath of losing a patient in the OR. We are in a profession founded on safety, control, and precision; however, the shock of an intraoperative death, especially when it is unexpected, can shatter the illusion of invincibility, leaving behind immense feelings of guilt, doubt, and isolation.

While intraoperative death (IOD) is never an expectation, it is the ultimate outcome that a well-prepared anesthesiologist seeks to avoid. IOD, while rare, is an event that will happen in the careers of most anesthesiologists, yet training rarely focuses on the management of the aftermath (*Anaesthesia* 1997;52:477-82). One study indicates that intraoperative CPR in noncardiac surgeries occurs in 0.03% of cases (*PLoS One* 2020;15:e0225939). Few anesthesiologists discuss these outcomes, but an intraoperative death can have significant psychological impact on the anesthesiologist involved. It has been suggested that inadequate support following an IOD could lead to constant internal repetition of events, dysfunctional behavior, insomnia, substance abuse, early retirement, and even suicide (When Things Go Wrong. 1990). Furthermore, anesthesiology trainees, like trainees in other specialties, do not have the same breadth of experience as their attendings and may be unequipped or unsupported following a death, and every person may cope with the adverse event in different ways.

## The unexpected death of a patient

IOD is always difficult. It is particularly difficult in patient populations such as obstetrics and pediatrics, where death is very rarely a probable outcome. Many pediatric anesthesiologists are involved in the care of patients when they are in their most clinically tenuous state. As Soto argues, an anesthesiologist's brief and seemingly superficial encounter with a patient prior to surgery "leads to situations in which we potentially internalize the impact of death…[and] we find ourselves ill-equipped to deal with the grieving process" (*J Clin Anesth* 2003;15:275-7). Many anesthesiologists thus experience overwhelming feelings of guilt and anxiety, often attributable to "disenfranchised grief," or overlooked pain, while other physicians involved in these tragic events are permitted to and trained to grieve among their colleagues (*Anesthesiology* 2017;126:1200-1). However, resources from the pediatric critical care field, where these outcomes are infrequent but not uncommon, do exist. Pediatric anesthesiologists can look to emotional training and grief counseling techniques employed by pediatric and neonatal intensivists (*J Clin Anesth* 2003;15:275-7).

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By contrast, in the obstetric population, anesthesiologists may find limited resources for support. A study found that, following a maternal death, there is a professional culture of silence, likely driven by fear of individual accountability (*Acta Obstet Gynecol Scand* 2015;94:1346-53). However, this study – one of the first and only to provide direct insight into how the multidisciplinary teams are affected by maternal death – fails to include a survey of anesthesiologists involved in the IOD. These feelings can be further exacerbated in resource-limited settings, often where maternal mortality remains elevated (*BMC Pregnancy Childbirth* 2022;22:206).

## The "second victim effect" and strategies for support

While anesthesiologists are rarely the sole players in the management of a patient on the verge of IOD, they may be questioned or blamed for ineffective resuscitation, which amplifies feelings of guilt and responsibility in the death of a patient. Specialties with higher burdens of unexpected and sometimes catastrophic patient events – emergency medicine, surgery, and anesthesiology – have higher rates of provider "second victim syndrome." Described by Dr. Albert Wu, the "second victim syndrome" is a framework expanded to include any emotional burden experienced by a health care worker after a traumatic event. Symptoms include troubling memories, fear of repeating errors in the future, embarrassment, and guilt (Second Victim Syndrome. 2024). A survey study found that in anesthesiologists who had experienced IOD, over 70% exhibited these symptoms and 19% of respondents never fully recovered. Over 12% of anesthesiologists considered a career change. More worrisome is that two-thirds of respondents felt most compromised in their ability to provide care for the immediate four hours, but only 7% were permitted time off (*Anesth Analg* 2012;114:596-03).

Because of the rarity of an IOD, anesthesiologists may not know how to cope nor where to look for guidance. Surveys have shown that anesthesiologists faced difficulty with disclosing an IOD, and many felt they had inadequate support (*Can J Anaesth* 2010;57:361-7). Anesthesiologists, like other physicians, may feel they are a part of a culture of infallibility; however, it is crucial that anesthesiologists have support from their institution regarding reporting of an IOD as well as support of their emotional needs (*Acta Anaesthesiol Scand* 2005;49:728-34). Having a system in place for debriefing and analysis of the events leading up to the IOD is critical in managing emotional outcomes in physicians and for quality improvement. Particularly with maternal death, team members point to the lack of organized support in navigating the aftermath (Second Victim Syndrome. 2024).

## Supporting our trainees

Organized support is even more crucial when considering that medical trainees are often involved in the care of patients prior to IOD. Trainees frequently witness poor outcomes for the first time in the observer role and do not always have resources to debrief and process the event. For instance, a cross-sectional study of 188 doctors managing care across a population that experienced a high rate of patient death found that junior residents reported needing

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### From Surviving to Thriving

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My mind craved unstructured time – also called "self-care" these days. I have always been an artistic person, so I revisited creative outlets from the past I had let go. I began sketching, journaling, and playing piano again. However, a newfound hobby unexpectedly changed my life – learning to knit and crochet. Here was something creative, technical, hands-on, yet quite meditative in nature. It struck a chord with me by providing a way to tune out the bad and turn up the good. Completely self-YouTube-taught, wonky-shaped scarves soon turned into blankets, hats, and mittens.

Before I knew it, I found myself in a whole new space. I was now happy to take on each new day. My anxiety, stress, and pain levels had decreased considerably to a manageable level with the new tools I was acquiring. I had found new joy in my life with a whole lot of self-care. I had restored some balance to my life and began to thrive.

About six months after leaving my institution, I realized I missed more than just the people – I missed being an anesthesiologist. I missed teaching residents, helping anxious patients through surgery, and even performing procedures like I.V.s and epidurals. At the department's holiday party, our chairman suggested I work part-time. As a 0.5 FTE, I could keep most benefits with adjusted pay. It turned out to be one of the best decisions I've ever made! Now, I enjoy a more balanced life, continuing in a profession I love while maintaining self-care, guided by equanimity and gratitude. ■

### Navigating the Aftermath

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significantly more emotional support than attending physicians after the death of their patients (*BMJ* 2003;327:185). Debriefing and creating spaces for trainees to reflect on their emotional experiences have proven to be beneficial in helping them recover (*Cureus* 2023;15:e39715).

The growing role of simulation of patient death among trainees offers a potential for enhancing existing curricula that prepare trainees to navigate these outcomes. While few studies point to greater levels of stress and anxiety in medical students in simulated patient death, this research is primarily focused on small cohort studies that do not follow long-term educational outcomes (*Cureus* 2023;15:e39715). We argue for further research in this growing field as high-fidelity simulation becomes a more standard practice in anesthesiology training.

#### What happens next?

The assumption that most anesthesiologists may remain insulated from intraoperative death is a fallacy and may further lead to poor support systems for navigating the aftermath. We strongly advocate for the incorporation of routine discussions of intraoperative death at the anesthesiology trainee level through lectures and simulations. Additionally, we call for systemic changes to ensure that all anesthesiology trainees have immediate access to robust emotional and psychological support resources in the event of an intraoperative patient death. Our training should prepare us to handle every outcome, especially the most unimaginable.

At a minimum, these unexpected outcomes force us to shine a light inward to answer the questions: What makes a good anesthesiologist? What makes a good career? It is hard to say. But perhaps "being good" comes from knowing that taking care of a patient can mean both comforting a patient as they fall asleep, and rapidly resuscitating them in the face of a crisis. It comes from also knowing that our patients can be both extremely resilient and exquisitely tenuous at the same time – that our cases can be simple and complex, routine and emergent. And finally, it comes from knowing that we, as anesthesiologists, can be both strong and vulnerable, sensitive and brave, as we handle the good outcomes and the bad. ■


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