

Learning From Others: A Case Report from the Anesthesia Incident Reporting System

Case 2021-08: Resilience

We are in the middle of a gang war. Four patients with gunshot wounds showed up to the OR at once. We were equipped to run two ORs and I had two CRNAs and a resident with me. Fortunately, the OB floor was quiet so they came over to help while the anesthesia attending started to go through the call-in list. Everybody was taken care of but the entire team had the feeling that we were one emergency away from having to ration care.

We've all been there. No matter how efficient the staffing plan, there will come a day when the demand for anesthesia services exceeds the supply. This happens in trauma centers and big hospitals when emergency cases appear from outside, and it happens in elective ASCs when one case goes sideways in the OR, one clinician calls in sick, and another patient has an issue in the PACU. The 1% "perfect storm" of conflicting events will happen three days a year in even the best-run OR suites, often without any warning at all. For example, the closest hospital to the Las Vegas shooting incident in 2017 performed 58 unexpected surgeries in 24 hours, with anesthesiologists pulled in – or self-responding – from all over the city (*J Trauma Acute Care Surg* 2019;86:128-33). Crisis management is at the core of anesthesiology, both one patient at a time and when multiple crises happen at once. Vigilance is our motto, but resilience is our essential culture. How do we build more?

On the individual level, resilience arises from mindfulness, or situational awareness, as discussed in this column in the past. The experienced anesthesiologist is constantly asking "what's the worst thing that can happen right now?" and then thinking about how to respond if it does. The ASA Difficult Airway Algorithm emphasizes the importance of having a Plan A, a Plan B, and a Plan C for every case, and rehearsing them – at least mentally – before they are needed. Simulation training, pioneered by anesthesiologists, builds comfort with shifting clinical circumstances, while periodic "disaster drills" make us familiar with options and resources. This kind of thinking should be applied to OR management as well – the anesthesiologist-in-charge should always know how the next case is going to be covered, no matter how busy it is at that moment.

When a crisis is predictable, such as multiple admissions to a trauma center at one time or an ASC patient requiring transfer to an ED, then cognitive aids can be created in advance to facilitate institu-

Figure: A simple checklist for high-demand situations
Questions and Resources for Situations of High Clinical Demand
Are there cases that can be delayed or transferred elsewhere?
Are there cases in the OR now that can be truncated?
Can we borrow personnel from a less urgent case?
Can we extend the coverage ratio for the anesthesia care team?
Can we find under-utilized personnel in the PACU, ICU, ED, labor deck, or elsewhere in the hospital?
Are there administrators who can be pressed into service?
Are there trainees who can fill in for simple cases?
Are there people on call we can summon?
Can we reach beyond the call list?
Can we do cases at the bedside in the ICU or ED?



tional resilience. For example, the facility that submitted this month's case might create a document like the figure above to post on the OR bulletin board.

Like cognitive aids for rare clinical events, a checklist such as this one does not apply to every situation and is not a substitute for good leadership. There are often difficult decisions between individual patient safety and overall performance. It's not right to abandon one patient to help another, but it might be appropriate to arrange resources in advance to yield the greatest good for the greatest number. In mass casualty care, this is the concept of triage, and it's something that every anesthesiologist should be familiar with. The COVID pandemic has made rationing of ECMO, ICU beds, ventilators, and even oxygen a topic of discussion worldwide. And even while not life-and-death dra-

matic, on a lesser scale triage is something the anesthesiologist-in-charge is doing every day as the assignments are made and risks and workloads are balanced. Having a checklist can help ensure that important steps are not overlooked. And for the OR committee and senior leaders, the process of discussing and putting together the list

is itself a rehearsal for an actual crisis. As Dwight D. Eisenhower said: "Plans are useless, but planning is indispensable."

The case report describes a near-miss situation. The team was stressed but went from Plan A to Plan B to Plan C and eventually reached a solution, demonstrating resilience in the moment. Most of the time, in most situations of clinical stress, this is what happens: human creativity and flexible thinking triumph, and resources are found to meet the need. In doing so, the anesthesia team becomes stronger, learning something about their own capacity to flex up.

However, this should not be the end of the story. The reporting anesthesiologist describes the event as a near miss, with a cry for help at the end of the report: "... one emergency away from having to ration care." This point should not be neglected. Just as a near miss with a patient's airway should prompt a subsequent review of equipment availability, screening protocols, communications, and decision-making, a near miss with staffing should prompt a data-driven review of institutional resources. Have clinical volumes increased? Has staffing changed? Is this a one-off occurrence or something that's happening once a week? Is the anesthesia team being appropriately resourceful, or are they co-enabling a systematic weakness? If the OR needs to implement Plan B every other night and Plan C three times a month, then it's probably time for a new Plan A!

It's said that stress makes diamonds, and this is true of every anesthesia clinician and every OR leader. Our job is a complex one that requires constant integration of multiple data points from even a single patient; when multiplied across many patients needing care at one time, it can easily become overwhelming. Situational awareness, simulation, cognitive aids, and conscious review and learning from experience are tools that leaders can cultivate to improve resilience in the face of multiple demands. ■

Review of unusual patient care experiences is a cornerstone of medical education. Each month, the AQI-AIRS Steering Committee abstracts a patient history submitted to the Anesthesia Incident Reporting System (AIRS) and authors a discussion of the safety and human factors challenges involved. Real-life case histories often include multiple clinical decisions, only some of which can be discussed in the space available. Absence of commentary should not be construed as agreement with the clinical decisions described. Feedback regarding this article can be sent by email to airs@asahq.org. Report incidents or download the AIRS mobile app at www.aqiairs.org.