

## A PIECE OF MY MIND

# What I Learned About Adverse Events From Captain Sully

## It's Not What You Think

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**This is not a** piece about how medicine should take a cue from aviation and incorporate simulations into training. It is not about how medicine should learn from aviation and develop emergency checklists and algorithms. It is not about how medicine should learn from aviation and promote blame-free error reporting. No, it is not even about how medicine should learn from aviation and incorporate briefings, debriefings, and safety language models. Medicine safety culture is experiencing a bit of "aviation fatigue," and it is often noted that patients are not airplanes. Patients are not airplanes, it is true. But humans are human whether they be pilots, physicians, or patients. And so when folks say a key difference between aviation and medicine is that the pilot goes down with the plane, I beg to differ. The well-being of physicians is directly tied to the well-being of their patients.

Earlier last year, I had the pleasure of speaking on the phone with Captain Chesley (Sully) B. Sullenberger III of the now-famous Miracle in the Hudson landing of US Airways Flight 1549 (May 2014). As nearly everyone knows, Captain Sully's aircraft hit some birds shortly after takeoff, causing the plane to lose power in both engines. Some incredible emergency management ensued, with practically perfect execution by the captain, first officer, cabin crew, and air traffic control. The aircraft touched down in the middle of the Hudson River, close to rescuers, and no one was killed or critically injured. There was no glaring error, no misstep, no panic. By all accounts, this was an incredible save.

So why did Captain Sully tell me they "all had PTSD for several months" thereafter? Why, if Captain Sully's years of experience had all been a cumulative preparation for this most unlikely event, and if he did just about everything right (and quickly), could he not sleep or concentrate for three months? Why did he need medications to control his racing heart and high blood pressure? Why could he not return to the skies for nearly half a year? First Officer Jeff Skiles experienced similar aftermath, according to Sully. According to testimony before Congress, even the air traffic controller Patrick Harten had to be removed immediately from duty and was unable to return to work for about a month and reported only beginning to feel good about that event a full year later. Mr Harten says, "It may sound strange but for me the hardest part of the event was when it was over. During the event I was hyperfocused ... but when it was over, it hit me hard."<sup>1</sup> Captain Sully shared this sentiment, telling me that he felt in control during the event, and in shock immediately afterward, and the total impact took some time to process. The flight crew also took time away, and one flight crew member with 38 years

of experience never returned. I was surprised to know that after a hugely successful demonstration of teamwork and skill, and a landmark safety save, all of the parties involved were so adversely affected. And I was impressed when Captain Sully told me that a coordinated and supportive debriefing was arranged within 24 hours for their flight team and family members, with the purpose of preparing them for emotions and physical responses they might have, and normalizing the post-event experience and timeline for emotional recovery. And then I realized, this is one thing we haven't yet learned from aviation.

No one would have considered pulling Sully or Skiles or the flight crew members out of the river and asking them to head back to La Guardia and fly another leg. Yet in medicine, physicians are generally expected to continue caring for patients, sometimes without even a brief period of time to reflect or regroup. Patients suffer cardiac or respiratory arrests and other emergencies—they even sometimes die—in our operating rooms. And yet many of us feel pressure to get the next case going without delay. This may represent either explicit external pressure from administrators or other team members, internal pressure on ourselves to not appear vulnerable or weak, or a combination.

People are different, of course, and not everyone will feel that their care and judgment for subsequent patients are affected by having been part of an emergency just moments before. Some will be impaired and know it, but be powerless to get relief from duty. Some will be impaired but not realize it, and trudge along like good soldiers. Some may truly not be affected at all. But we have some data that physicians and nurses are indeed adversely affected by the emotional turmoil of participating in emergencies, whether the outcome is good or bad, and whether mistakes are made or the execution is perfect.

Physicians are twice as likely to kill themselves as the general population,<sup>2</sup> and, at least among anesthesiologists, the impact of perioperative critical events is both powerful and lasting. According to one study of anesthesiology physicians, being involved in a perioperative death or similar event caused up to 70% of those surveyed to have symptoms consistent with posttraumatic stress disorder and two-thirds to say that they believed their ability to provide safe patient care subsequently was compromised.<sup>3</sup> The impact was so great in fact that nearly 20% said they never fully recovered from the experience, and 12% considered a career change. Health care professionals who suffer in this way are called *second victims*, and patients who are harmed subse-

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quently are called *third victims*. The second victim effect was first described by Wu in 2000,<sup>4</sup> although the author focused specifically on the impact of having made an error. However, an emotional toll may be taken even when no error is made, and perhaps even with an adverse outcome is not unexpected and completely unpreventable. A decade and a half later, we are still failing our second and third victims with woefully inadequate support systems and a burden on the physician to self-identify as being "weak" if he or she cannot function.

The contrast between the immediate removal from duty for those involved in the Miracle on the Hudson and the expectation that permeates our hospitals is stark. In both cases, the safe care of the next "customers," whether they be travelers or patients, is at stake. This raises interesting ethical questions: Does a patient have the right to know that his or her surgeon's prior patient died, and that's the reason the surgery schedule is running just a bit behind? Would he or she choose another day for surgery when they know the team has not been subjected to emotionally charged circumstances? Pa-

tients sometimes ask me if I am well rested, because they've heard on the news that we anesthesiologists sometimes work all night and into the next day. They want to know if I am going to be in the room the entire time, and if the surgical resident is going to be doing or just observing. They ask how old I am, where I trained, and all kinds of other questions to satisfy themselves that I am ready to take good care of them. They care about physician fatigue, distraction, and conflicts of interest, but I would wager that it has not occurred to most folks to ask if anything has gone wrong in the OR recently, and if anyone on the team might be emotionally compromised. People intuitively know that death or near-death experiences (even when vicarious) can have an impact, even for seasoned professionals. Do our patients have the right to decide whether they wish to be on the receiving end of our best efforts after a catastrophe? Do we have an obligation to inform them? Or should we all just climb out of the "river," press on, and deliver the best care we can under the circumstances?

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