

Do You Have a Backup Plan or Exit Strategy?

Prizefighter Mike Tyson, once the heavyweight boxing champion of the world, has amassed a bevy of memorable quotes throughout his life. Perhaps most well-known was his response to a reporter asking whether he was worried about Evander Holyfield's fight plan in preparation for their upcoming match. Tyson quipped "Everyone has a plan until they get punched in the mouth." Although many in history have shared similar comments about plans crumbling under pressure, Tyson's quote was the one that came to mind while recently reading the court documents detailing an ill-fated dental sedation case with an exceptionally poor outcome.

The case in question involved a dentist alleged to have provided intravenous moderate sedation resulting in the death of a patient. Among the many allegations raised by the state dental board, the key issues focused on improper patient assessment, improper/illegal oversedation, and failure to recognize and respond to the medical emergency. There were several points raised in the initial court complaint that described actions which are seemingly hard to support. However, it became clear as I read that the dentist's initial plan simply fell apart in the face of unanticipated difficulty. The sedation plan (ie, plan A) did not deliver satisfactory operating conditions, and rather than consider more appropriate actions, plan A was essentially repeated multiple times to no avail. The dentist then allegedly moved on to plan B, which involved the administration of sedative medications incompatible with the dentist's level of training and sedation permit. This ultimately led to further deterioration of the situation, culminating with the unsuccessful rescue of the patient who was in severe distress. While the details of this unfortunate case could foster endless debate, I feel it perfectly illustrates the champ's point. Despite the best of intentions, initial plans often do fall apart after first encountering trouble. That is why anesthesia providers must not only develop a thorough preanesthetic plan (plan A) but also be prepared to enact other contingency plans (plans B, C, and D) including aborting a case.

The human response to acute stress is a phenomenon that has been well studied, and research has shown that moderate, short-lived stress can improve alertness, enhance performance, and boost memory. However, when faced with extreme stress, the brain can get easily overwhelmed, leading to missed or misinterpreted information, decreased situational awareness, impaired concentration, slowed decision times, tactical fixation, and other cognitive distortions. Thankfully, there are several ways to help combat this inherently human response to acute stress, perhaps the most critical of which are planning, cognitive aides, and experience. Although planning has

a multitude of other benefits, reviewing viable responses beforehand helps increase the likelihood of those actions being remembered while under duress. Cognitive aides (eg, check lists, emergency protocols) are simple and effective ways to kick-start a brain stalled by acute stress, plus they can be made readily available to all team members. Experience is certainly key as it helps in understanding the complexities of an emergency along with crafting and conducting an effective response.

When it comes to contingency plans and exit strategies, anesthesia providers should take care to avoid painting themselves into a corner. Most dental sedations or general anesthetics incorporate the use of benzodiazepines and opioid agonists, 2 commonly used drug classes that feature reversal agents. These antagonists should be considered in emergencies involving oversedation or overdose, especially if a patient in distress continues to decline. However, it is quite common for providers to simply forget about these reversal agents in the face of an emergency. Many anesthetic cases involving poor patient outcomes notably feature flumazenil and/or naloxone use at a point when it is entirely too late—or regrettably, their use is neglected entirely. Additionally, these wonderful "get out of jail free" cards can be rendered useless if other sedatives that cannot be reversed (eg, propofol or ketamine) are also administered, as was alleged in the case described earlier. Similarly, deepening a patient may be inappropriate depending on the situation, but deep sedation and general anesthesia are certainly unacceptable options for an anesthesia provider unqualified to administer those levels of anesthesia. Recognizing looming trouble and opting to safely abort a failed anesthetic early may be difficult to accept, although it is clearly preferred to an outcome ending in patient harm.

One facet of anesthesia that I find perpetually engaging is that there is no such thing as a "minor" sedation or anesthetic. Like flying, every case has the potential to turn into an abject nightmare replete with hair-raising twists, nerve-racking turns, and even a crash landing. The potential of the unknown is what I often find keeps me on my toes. However, planning for the unexpected is what can help prevent total tragedy. It is essential that we as anesthesia providers prepare for the unexpected, remain vigilant, and be ready to act when needed. As part of the teaching process, I often ask my oral surgery residents to describe their anesthetic plan in detail, including their intended depth of sedation or anesthesia for the case. I then ask what they predict likely problems to be along with what their backup contingency plans entail. Running through this mental exercise is immensely helpful as it does the following: (1) clarifies their goals, anticipated actions, and responses; (2) helps them identify and hopefully avoid potential potholes; and (3) establishes treatment boundaries and exit strategies. I utilize the same process in my private mobile anesthesia practice when faced with particularly challenging or difficult cases and find that it helps ensure my preoperative preparations are complete.

One of the biggest hurdles faced by all anesthesia providers is appropriately managing unrealistic patient expectations. It is quite common for my adult patients to say that they “want to go to sleep,” with little to no regard for their current health status or comprehension of the inherent risks. While deep sedation or general anesthesia is a valid option for many, some patients are quite unhealthy and have risk factors that negate the use of deeper levels of anesthesia in the office-based environment. Despite their desires to be “asleep,” it may not be appropriate (due to safety) for plans to include deeper levels of anesthesia. Anesthesia providers must recognize and respect those treatment boundaries and understand that deepening the patient is simply not an option in such a situation. Instead, appropriate alternatives should be considered like administering reversal agents or aborting the case if the planned lighter levels of sedation are unsuccessful. Thankfully, most of these challenging patients do exceptionally well with minimal or moderate sedation and excellent local anesthesia following ample discussion and the resetting of their expectations.

A successful anesthetic plan depends heavily on proper patient selection and establishing realistic expectations, particularly for at-risk patients. It is critical that everyone (ie, the patient, anesthesia provider, surgeon, and support/axillary staff) is on board with the anesthetic plan being developed. It must also be said that a small subset of patients are clearly not candidates for in-office anesthesia care altogether and should be referred accordingly to a hospital or surgery center environment. Sedation and general anesthesia have inherent risks even for healthy patients, and although perioperative emergencies can strike at random, being properly prepared for the unexpected significantly reduces those risks and increases patient safety. A key aspect of the preparation process for every sedation or general anesthetic case is to develop thoughtful contingency plans and exit strategies. Otherwise, you risk being caught empty handed when your initial plan fails, and trouble inevitably smacks you in the face.

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