ARTIGO DE PERSPECTIVA

Improving Patient Safety Culture in Anesthesia: How Do We Get There?

Melhorando a Cultura de Segurança do Doente na Anestesia: Como Chegamos Lá?

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In 2000, the Institute of Medicine (IOM) report, *To Err is Human*, incited a media frenzy by estimating that 44 000 to 98 000 deaths per year are attributable to medical errors; of these, nearly half are preventable.[1] More recent studies have estimated that preventable harm results in 400 000 patient deaths per year, and that adverse events occur in 38.1% of hospital discharges, with those related to surgery or procedures comprising the largest category (40.5%).[2,3] As a result of these staggering figures, the IOM has defined six domains of quality that should be fulfilled by a health care system; care should be safe, effective, patient-centered, timely, efficient, and equitable. "Safe" care is defined as the avoidance of harm to patients from care that is intended to help them.[4]

As a specialty, anesthesiology has always been at the forefront of advancements in and advocacy for patient safety; in fact, Leape *et al* laud anesthesia as providing "an outstanding example of how a high level of safety can be achieved in health care".[5] The Anesthesia Patient Safety Foundation (APSF), formed in 1985, advocates for patient safety through research and education, and provided a model for the National Patient Safety Foundation. The APSF remains the only specialty-specific non-profit foundation dedicated to patient safety. Nevertheless, despite large gains in patient safety, errors still occur. While overall mortality related to anesthesia has been declining since the 1970s,[6] likely due to improvements in monitoring such as pulse oximetry and capnography, overall mortality related to anesthesia remains high at 7.3 per million patients.[7] Recent data from the American Society of Anesthesiologists Closed Claims Database revealed that the majority of malpractice claims related to anesthesia administration in non-operating locations, for example, could have been preventable by better monitoring.[8]

How, then, can patient safety in anesthesia be improved? One way is to assess patient safety culture within individual departments. The Agency for Healthcare Research and Quality characterizes patient safety culture as having the following characteristics:

1. recognition of the high-risk activities of a health care entity;

2. the commitment to achieve safe operations;

3. an environment where adverse events can be reported without blame;

4. promotion of teamwork to address problems in patient safety;

5. commitment from the organization and from leadership to provide resources to address patient safety issues.[9]

Overall patient safety cannot be improved without having a supportive local patient safety culture.

One consideration is that patient safety and quality are complementary and not synonymous. While safety refers to the avoidance of harm to patients, and is certainly a component of high quality care, quality refers to care that can "increase the likelihood of desired health outcomes".[4] Improvements in patient safety then, may involve better monitoring and standardization of processes to prevent errors and adverse events from occurring; quality improvement, on the other hand, may require processes to become more efficient and effective, resulting in better outcomes for patients overall. Recognition of problems in patient safety can lead to productive quality improvement efforts.

Improvements in safety culture cannot occur without a robust error reporting mechanism; after all, we cannot improve if

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we do not know that there is a problem. Traditionally, adverse events are made known to departmental quality assurance and patient safety committees through self-reporting. However, there may be significant barriers to self-reporting, including fear of being blamed or shamed, fear of litigation, fear of disciplinary action, fear of breach of confidentiality, concern regarding lack of feedback or response, and simply forgetting, among others.[10] A healthy self-reporting system must address all these concerns.

It has long been recognized that adverse errors are often the result of the unlucky alignment of problematic systems and processes, rather than due to the incompetence or oversight of an individual practitioner. "Gap theory" posits that many of the problems in safety and quality in health care are the result of discontinuities in care processes.[11] Thus, patient safety efforts must focus on the processes and systems that are barriers to safety, rather than individual practitioners; in doing so, departments can reduce the "culture of shame and blame" that so often mar case review and self-reporting. By focusing on process rather than individual performance, fears of being blamed may be reduced; this, in turn, can encourage increased rates of self-reporting.

Unfortunately, many adverse events go unreported due to simply forgetting. Increased production pressure and older, sicker patients often distract anesthesia providers, even if they fully intend on reporting. Therefore, self-reporting systems must be easy to access and complete. Furthermore, they should be automated and should not rely on individual practitioners to remember to report. In our department, for example, providers are reminded to complete an electronic survey regarding adverse events prior to completing their electronic anesthetic record. This survey has categories for "no event" or adverse events such as airway or hemodynamic disturbances that can be easily clicked and completed within minutes.

Once adverse events are reported, they should be reviewed expeditiously by the quality assurance committee. While shifting away from the "culture of blame and shame," the term "peer review" should also be retired, and the focus on process and systems should be emphasized. During review of cases, confidentiality should be maintained; providers must be assured that adverse events will not be discussed in a public forum. No providers should be mentioned by name and specific details are to be discussed only amongst committee members.

Reassurance of confidentiality should, in turn, promote increased self-reporting amongst providers. Furthermore, any cases that are reported should be reviewed in a timely fashion. Egregious gaps in patient safety must be addressed immediately. If providers see that their concerns are being taken seriously and action is being taken, they will be more likely to participate both in adverse event reporting and improvement initiatives.

Suggestions for process improvement can certainly be generated by the quality assurance committee; however, this committee should not be tasked with both case review and process improvement implementation. Rather, a separate process improvement committee or team should arrange the operational details. At our institution, the Quality Council, comprised of members of the anesthesia department from the leadership and clinical operations team as well from the patient safety and quality assurance committee evaluate proposed systems improvements as well as provide support for implementation of quality improvement and patient safety projects. The council recognizes that the success of these projects relies on cooperation and support of affected stakeholders, which could be members of the anesthesia department as well as nurses, surgeons, pharmacists, and others involved in perioperative care. Interdisciplinary involvement is key to success; in addition, success depends on embedding changes in processes rather than relying on individual practitioners to remember to alter their practice.

Regardless of the emphasis on system and process, individual practitioners may still blame themselves when an adverse event occurs, becoming a "second victim" in the process. These second victims may suffer long term emotional and mental trauma, leading to feelings of inadequacy at work and burnout.[12] Anesthesia departments must be well equipped to support their members when adverse events occur; this may involve referral to physician wellness efforts or physician mental health support within the hospital. Departments may also consider the creation of "peer support" teams within the department that are trained to reach out to providers when adverse events occur and to provide emotional and mental support.

Much of anesthetic training is focused on patient safety – recognition of hypotension, hypoxia, and hypercapnia are all taught within the first few months of residency. However, process improvement is not a common component of education in anesthesia residency or even in medical school. Fortunately, several resources exist online; the Institute for Healthcare Improvement, for example, has numerous online education modules on patient safety and quality improvement.[13] In addition, simulation may also help improve provider performance and patient outcomes.[14] Finally, a robust patient safety culture within an anesthesia department can also lead to the prevention of errors before they occur. In an environment that promotes patient safety, anesthesia professionals may be more empowered to "stop the line" and speak up when they recognize an unsafe process. John Eichhorn suggests the "P.A.C.E." model: probing ("Did you see …"), alerting ("Can we discuss …"), challenging ("Please stop and discuss …"), and emergency ("Stop now…").[15]

Patient safety in anesthesia continues to be challenged

as providers are continually asked to accomplish more with fewer resources. Patients are older with greater comorbidities, and more procedures are taking place outside of the operating room. With the increased usage of electronic medical records and mobile technology, distractions are ever present in the operating room. Medication errors continue to plague anesthesia providers worldwide. As we are facing these continued challenges, maintaining a strong patient safety culture is imperative.

REFERENCES

1. Kohn LT CJ, Donaldson MS. To err is human: building a safer health system Washington: National Academy Press, 2000.
2. James JT. A new, evidence-based estimate of patient harms associated with hospital care. J Patient Saf. 2013;9:122-8. doi: 10.1097/PTS.0b013e3182948a69.
3. Kennerly DA, Kudyakov R, da Graca B, Saldana M, Compton J, Nicewander D, Gilder R. Characterization of adverse events detected in a large health care delivery system using an enhanced global trigger tool over a five-year interval. Health Serv Res. 2014;49:1407-25. doi: 10.1111/1475-6773.12163.
4. Institute of Medicine (IOM). Crossing the quality chasm: a new health system for the 21st century. Washington: National Academy Press, 2001.
5. Leape LL, Berwick DM, Bates DW. What practices will most improve safety? Evidence-based medicine meets patient safety. JAMA. 2002;288:501-7.
6. Bainbridge D, Martin J, Arango M, Cheng D. Perioperative and anaesthetic-related mortality in developed and developing countries: a systematic review and meta-analysis. Lancet. 2012;380:1075-81. doi: 10.1016/S0140-6736(12)60990-8.
7. Schiff JH, Welker A, Fohr B, Henn-Beilharz A, Bothner U, Van Aken H, Schleppers A, Baldering HJ, Heinrichs W. Major incidents and complications in otherwise healthy patients undergoing elective procedures: results based on 1.37 million anaesthetic procedures. Br J Anaesth. 2014;113:109-21. doi: 10.1093/bja/aeu094.
8. Woodward ZG, Urman RD, Domino KB. Safety of non-operating room anesthesia: a closed claims update. Anesthesiol Clin. 2017;35:569-81. doi: 10.1016/j.anclin.2017.07.003.
9. Agency for Healthcare Research and Quality. Culture of Safety. [Accessed September 30, 2018] Available from: https://psnet.ahrq.gov/primers/primer/5/Culture-of-Safety.
10. Heard GC, Sanderson PM, Thomas RD. Barriers to adverse event and error reporting in anesthesia. Anesth Analg. 2012;114:604-14. doi: 10.1213/ANE.0b013e31822649e8.
11. Cook RI, Render M, Woods DD. Gaps in the continuity of care and progress on patient safety. BMJ. 2000;320:791-4.
12. Scott SD, Hirschinger LE, Cox KR, McCoig M, Brandt J, Hall LW. The natural history of recovery for the healthcare provider "second victim" after adverse patient events. Qual Saf Health Care. 2009;18:325-30. doi: 10.1136/qshc.2009.032870.
13. Institute for Healthcare Improvement. Open School. [Accessed September 30, 2018] Available from: http://www.ihi.org/education/ihiopenschool/Pages/default.aspx..
14. Shear TD, Greenberg SB, Tokarczyk A. Does training with human patient simulation translate to improved patient safety and outcome? Curr Opin Anaesthesiol. 2013;26:159-63. doi: 10.1097/ACO.0b013e32835dc0af.
15. Eichhorn JH. Review article: practical current issues in perioperative patient safety. Can J Anaesth. 2013;60:111-8. doi: 10.1007/s12630-012-9852-z.