

Critical incident reporting: Why should we bother?

Quality assurance, self-reporting, near misses

One of the key features of the patient safety ‘movement’ is the belief that safety can be improved by learning from incidents and near misses, rather than pretending they have not happened.^[1] Critical incident investigation was first used in the 1940s as a technique to improve safety and performance among military pilots.^[2] This focus on critical incidents enabled the researchers to investigate the differences between behaviors that led to success and those that led to failure, and to derive conclusions about how people should be encouraged to act, especially by redesigning their work environments to produce more desirable outcomes.

In 1978, Cooper and colleagues described a ‘modified critical incident technique’ to interview anesthesiologists and obtain descriptions of preventable incidents.^[3] It is now common for departments of anesthesia to record and discuss adverse incidents and near misses with a view to learning from the problems encountered and preventing their re-occurrence^[4] in their mortality and morbidity (M and M) meetings. However, the knowledge of, and learning from, these incidents tends to be shared only at a local level, and any ensuing improvement in patient safety thus remains constrained locally. These do usher in a change of work settings, with many individual anesthesiologists citing such meetings to modification in their work practices. At departmental levels such meetings do bring in change in procurement policies of monitoring equipments or drugs after an unfortunate critical incident.^[5] Thus it becomes paramount in continuous quality improvement of work ethics, especially teamwork, communications, and organizational culture.

Several countries are in the process of developing their national critical incident reporting systems. In Europe an online anesthesia-specific reporting system was initiated in Switzerland since the mid-1990s^[6] and, more recently, the German Society of Anesthesiology and Intensive Care set up its own Patient Safety Optimization System.^[7] The Australian

Incident Monitoring Study began in the late 1980s as an anesthesia-specific venture and later culminated as the Australian Patient Safety Foundation which extended incident reporting beyond anesthesia.^[8] Patient Safety Database of Denmark allows uploading of incidents but it is not anesthesia-specific.^[9] The UK National Patient Safety Agency (NPSA), established in 2001, set up a Reporting and Learning System^[10] (RLS) to collect and learn from adverse incidents and near misses reported throughout the National Health Service in England and Wales. Various pertinent publications,^[11,12] including an Australian manual for the management of critical situations in anesthesia^[8] are available for reference, but huge lacunae still persist. This warrants, further work on appreciating methodology to learn from incidents, wider propagation of such ideas, and measuring impact on standards, quality, research, and patient outcomes.

Although developing countries are slowly starting to implement critical care reporting^[13,14] to improve their patient care, it is time their national bodies endorsed critical incident reporting at state and national levels and developed a culture where incident reporting is a routine occurrence. Our community has to be convinced that it will lead an overall improvement in patient care. Turning the reported incidents into new learning points will expedite changes in clinical management, thus optimizing patient safety. The success of a critical incident reporting system will be contingent upon the enthusiasm among the anesthesiologists and the quality of incident reporting. Anesthesiologists anticipate seeing the incidents they report culminating in increased patient safety, and use of less risky techniques. Organizations will then need to ensure that they deliver on these expectations.

An imperative facet of any reporting system is continuing feedback, which is ideal in keeping anesthesiologists involved.^[15] They have to be persuaded that their reporting of critical incidents would not be a wasted effort by showing functional improvements in patient safety. The realization of a critical incident reporting system hinges on it being user-friendly, intuitive, unambiguous^[16] and amenable to regular analysis, such that any learning points are promptly fed back to those concerned. The feedback or follow-up should be quick and not tenuous. It is important that the policy in place unmistakably designates ‘fair blame’ and ‘no disciplinary action’ on incident reporting with an assurance that they will be at no risk for retribution, unlike the aviation industry where not reporting is considered a matter for possible disciplinary action. The policy should have commitment to professional standards, training, curriculum, examinations, guidelines and

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recommendations, national audits, and research. The governing body should guarantee that the conveyed incidents are handled by professionals and independent experts, initiate speedy and suitable actions, reports, and recommendations, which can be circulated widely using prevailing channels (emails, websites, journals, and newsletters) within these organizations.

An article in this issue^[17], showed significant deficiencies in the adequacy of perioperative charting of records after analysis of 850 patients in an Australasia, especially in emergency and patients operated under regional anesthesia. Audits like these ensure uniformity, adequacy and accuracy in reporting. A detailed analysis of all the reported incidents and deficiencies in reporting should be generated every quarter or semi-annually and summary reports should be disseminated to all anesthesiologists and relevant specialist societies. Priority should be given to incidents of 'severe harm' or 'death' which can be scrutinized rapidly and, if considered appropriate, to even issue nation-wide rapid alerts. Guidelines should be formulated after audits, root cause analyses and modifiable circumstances surrounding recurrent incidents. Recommendation to professional bodies and specialist societies should be developed and research promoted in the areas of concern. Liaison with the professional bodies to modify training, education, professional standards, and curriculum is needed on priority, thus bringing greater integrity to our specialty. In our Department of Anesthesiology and Perioperative Medicine at Drexel University College of Medicine in Philadelphia, we have instituted mandatory critical care reporting and it is taken up on a monthly basis as cases in Morbidity and Mortality (M and M) Quality Assurance meetings. During these meetings incidents are analyzed and any changes, if required, in preexisting perioperative policies are contemplated to avoid repeat of the same incident. The major question to be addressed is: Was it 'human error', 'organizational accident' or 'unsafe act'? Unsafe acts are divided into unintended action and intended action. Active errors of unintended action are either 'slip' (attention failure) or lapse (memory failure). Intended action can be 'active' as in 'mistake' which may further be rule- or knowledge-based. Intended action that is a 'violation' is the last group; 'routine', 'optimizing' and 'necessary' violations all fall in this subgroup.

The transparent non-punitive collaboration will harness the passion of the profession for reporting threats to patient safety and acting to eliminate them. In conclusion, it will not be too optimistic to speculate that, as in many other areas, specialty-specific national incident reporting in anesthesia will be a model for future ingenuities in other specialties.

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