



Learning From Others:

A Case Report From the Anesthesia Incident Reporting System

Detailed review of unusual cases is a cornerstone of anesthesiology education. Each month, the AQI-AIRS Steering Committee will provide a detailed discussion based on a case submission to the Anesthesia Incident Reporting System (AIRS). Feedback regarding this item can be sent by email to r.dutton@asahq.org. Report incidents in confidence or download the free AIRS mobile application (Apple or Android) at www.aqiairs.org.

Case 2014-8: “What we’ve got here is a failure to communicate”

#1: A morbidly obese 65-year-old woman with poorly controlled diabetes, poorly controlled hypertension, coronary artery disease, peripheral vascular disease, and severe esophageal reflux disease presented for a laparoscopic-assisted total abdominal hysterectomy and bilateral salpingo-oophorectomy. A pre-induction “time out” was done with the physician anesthesiologist and surgical fellow, during which equipment and positioning plans were confirmed. A pre-induction arterial line was placed, the patient was anesthetized and additional vascular access was subsequently obtained. The patient was prepped and draped, and then the surgical attending entered the O.R. for the first time. She informed the team she was displeased with the positioning and required the drapes to come down, the patient to be moved to a temporary stretcher and a “bean bag” to be placed on the operating table under the patient. This subjected the patient to 45 minutes of unnecessary anesthesia time prior to the start of surgery.

#2: A 45-year-old ASA Physical Status III man presented to the O.R. for an esophagectomy. The patient was induced and a rapid sequence intubation was performed using succinylcholine. An arterial line and central venous catheter were placed, and rocuronium was given. Several minutes later, the surgical attending entered the O.R. and stated that he had canceled the case due to a scheduling conflict. The patient required mechanical ventilation and sedation until the neuromuscular blockade was reversible, a duration of more than 40 minutes. He was also subjected unnecessarily to the risks of the associated invasive monitoring procedures.

Discussion

Teamwork, leadership and communication failures top the list of causes of all sentinel events reviewed by the Joint Commission year after year¹ (Figure 1). These cases serve as a springboard for discussion of communication failures, which are present in an unacceptably high number of mishaps every year. Lingard and colleagues have studied and classified these failures by occasion, content, audience and purpose (not necessarily mutually exclusive).² In Lingard’s study, a whopping one-third of communications in the O.R. were classified as failures.

Failures of occasion include problems with situation or context. One such example is timing of communication that is not actionable. Case 2 above is an illustration of an occasion failure. Although the correct audience received the information and the purpose and content were clear, the communication came too late for it to be properly actionable. The anesthetic was already under way, and invasive lines were already placed.

Failures of content include insufficiency of information. As an example, a physician anesthesiologist might ask a surgeon if an ICU bed has been assigned to the patient. The surgeon responds, “We aren’t going to lose very much blood.” In this communication, the physician anesthesiologist has not included sufficient information to convey why he or she believes the patient might need an ICU bed, which may be related to a medical comorbidity and not at all related to expected blood loss. Similarly, the surgeon has not actually answered the question asked – instead responding to a completely different question, which perhaps is believed to be implied.

Failures of audience are illustrated by case 1 above. Although a high-level surgical team member (the surgical fellow) was present, that fellow was apparently not the proper audience. Input was needed from the attending, but she was not present. This could also represent a communication failure of occasion between the surgical attending and fellow, i.e., the attending could have discussed the need for a beanbag with the fellow in advance, thereby converting the fellow to the proper audience for the pre-procedure time out.

Failures of purpose are also often overheard in the O.R. Commonly, a surgeon may ask the physician anesthesiologist, “How’s it going up there?” or “How’s the patient doing?” These communications may be small talk, or they may reflect an inquiry as a result of something else. For example, if the surgeon has lost a considerable amount of blood, which might be occult for a number of reasons, he may be wondering whether the patient is symptomatic from that blood loss (e.g., blood pressure stability). A more explicit communication would include some context, such as, “We’ve lost about a liter of blood just now. How is the patient doing?”

This style of communication fits within the framework of the “advocacy/inquiry” technique, which requires an observation paired with a question, which assists in providing context and revealing the point of view of the person asking the question.³ Other techniques have also been described that assist in increasing shared situation awareness among team members.⁴ Communication failures continue to be an important patient safety issue and may be considered among the hazardous latent conditions within a health care system or culture. The adaptation of SBAR (Situation, Background, Assessment and Recommendation) or the critical event language CUS (I’m Concerned, I’m Uncomfortable, I’m Scared) may be helpful in reducing failures of content or purpose, but are unlikely to specifically remedy failures of audience or occasion.

As is often the case in errors involving human factors engineering, solutions may be directed at individual education as well as at systems and protocols, the latter likely being a more effective strategy. Certainly both strategies are important. At the core of this intersection between education of clinicians

and work flow design is the human factors engineering maxim that design trumps training; that is, “we must create processes and tools that reinforce safety culture teamwork behaviors.”⁵

For example, regarding insufficient or inaccurate information about equipment or positioning, a detailed “booking” or “posting” form could be made to require all of the elements, reducing reliance on last-minute information exchanges. One could argue that better communication between the attending surgeon and his or her designee (who actually performs the booking) needs to be improved in institutions where a designee (often a junior team member) bears the task of performing the booking. Education might improve the communication between some individuals some of the time. The element of variability is removed (as with other six sigma processes) if the attending surgeon is required to simply perform the booking personally. Alternately, if the attending surgeon is actually present during a pre-procedure briefing (again, early enough to be actionable, so perhaps in the preoperative holding area), the system protocol eliminates the human factors problem. As the Joint Commission requires that the time-out involve the immediate members of the team, including the individual performing the procedure, and requires “all relevant members of the procedure team actively communicate during the time-out,” the willingness of institutions to bend or break these rules likely speaks volumes about that institution’s safety culture.

Team-based O.R. training programs can improve communication between providers, and at least one study has demonstrated a mortality benefit after implementing a team-training program.⁶ The advanced cardiac life support (ACLS) course is one such effort widely required for hospital-based

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Figure 1: Leading Causes of Sentinel Event Reporting to the Joint Commission (from reference 1)

2011 (N=1243)		2012 (N=901)		2013 (N=887)	
Human Factors	899	Human Factors	614	Human Factors	635
Leadership	815	Leadership	557	Communication	563
Communication	760	Communication	532	Leadership	547
Assessment	689	Assessment	482	Assessment	505
Physical Environment	309	Information Management	203	Information Management	155
Information Management	233	Physical Environment	150	Physical Environment	138
Operative Care	207	Continuum of Care	95	Care Planning	103
Care Planning	144	Operative Care	93	Continuum of Care	97
Continuum of Care	137	Medication Use	91	Medication Use	77
Medication Use	97	Care Planning	81	Operative Care	76

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physicians and nurses. By teaching a common “language” and common algorithms, ACLS enables teams of strangers to come together rapidly to provide urgently needed care. Physicians (and some nurses) caring for trauma patients are all exposed to the advanced trauma life support curriculum, which provides them a shared vocabulary for communication and thus helps to reduce variability in the first minutes of in-hospital care for injured patients. More recently, the TeamSTEPPS program has been adapted by many hospitals to provide communication training in the O.R.⁷ Looking forward, the growing use of on-site simulation as a teaching and training tool will give O.R. teams who work together every day the ability to practice management of critical situations without putting real patients at risk. For those who teach residents or other practitioners, communication should be woven into the teaching dialogue whenever possible. Even without formal programs, however, communication is something that every physician anesthesiologist can practice every day.

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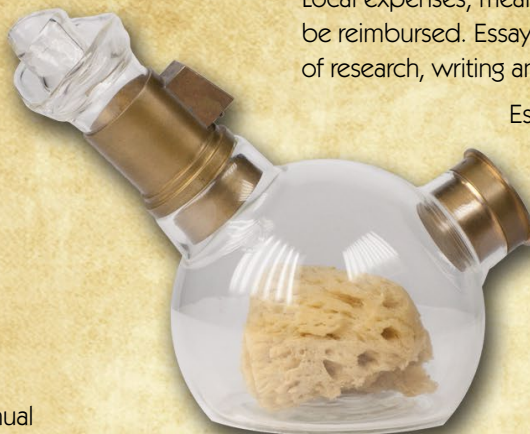
ANESTHESIA HISTORY ASSOCIATION ANNOUNCES 2015 C. RONALD STEPHEN, M.D. HISTORY ESSAY CONTEST

Open to any medical student or physician who composes an essay during residency or fellowship on any topic related to the history of anesthesiology, pain medicine or critical care.

Essays must be less than 3,500 words in length.

A prize of \$1,000 will be awarded for the winning essay.

The winner is required to present an abstract of his or her work at the annual spring meeting of the AHA in Houston (dates to be determined).



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Local expenses, meals and registration, but not travel, will be reimbursed. Essays will be judged on originality, quality of research, writing and bibliography.

Essays must be received no later than September 20, 2014.

Essays should be composed using Microsoft Word 2003 or later version and submitted via email to jmckeown@uab.edu. Illustrations should be in JPG or PDF format.

All submissions will be peer-reviewed for possible publication in the *Bulletin of Anesthesia History*.

Correspondence to **Jason McKeown, M.D.** at jmckeown@uab.edu

Full contest rules available at www.ahahq.org

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