Learning From Others:

A Case Report From the Anesthesia Incident Reporting System

Anesthesia Quality Institute
ANESTHESIA INCIDENT REPORTING SYSTEM (AIRS)

Review of unusual patient care experiences is a cornerstone of medical education. Each month, the AQI-AIRS Steering Committee abstracts a patient history submitted to the Anesthesia Incident Reporting System (AIRS) and authors a discussion of the safety and human factors challenges involved. Real-life case histories often include multiple clinical decisions, only some of which can be discussed in the space available. Absence of commentary should not be construed as agreement with the clinical decisions described. Feedback regarding this article can be sent by email to **airs@asahq.org**. Report incidents or download the AIRS mobile app at **www.aqiairs.org**.

Case 2017-8: Consent Informs Safety

A bright, communicative 9-year-old boy presented for tonsillectomy and adenoidectomy for recurrent episodes of pharyngitis. He was otherwise healthy. The anesthesia crew consisted of a physician anesthesiologist and a CA-1 resident. The patient had been evaluated in the institution's preoperative clinic.

The attending convinced the patient to accept an I.V. Attention was then directed to a risk-benefit discussion regarding the anesthetic. This was accomplished by the resident, who then obtained parental signatures on a standard form. During this process, the attending's attention was divided.

When it was time to wheel back to the O.R., the attending noted that the patient was tearful and anxious and attributed this to flagging courage after the I.V. and the other preparations for surgery. When told that he was about to receive I.V. sedation, the patient expressed strong feelings against this despite clearly understanding that another needle was not involved. The attending cajoled him (although he could have just done the I.V. push) and he agreed.

The surgery was uneventful. In recovery, the patient was wide "awake and inconsolable. He complained bitterly of pain. On exam, he did not seem to be deluded or confused, but thrashing about was observed. Opioid analgesic was aggressively titrated, and a dose of benzodiazepine was given. In short order the patient became somnolent and briefly desaturated. He then spent time in that never-never land in which reintubation was not a consideration but encouragement to breathe was occasionally necessary. A physician's full attention for about 30 minutes was required.

The patient ultimately met discharge criteria. The experience was clearly unsatisfactory for everyone involved. The attending called the patient's mother the next day to apologize and see how the family was doing. At this point the mother related that when the resident discussed risk, he made extensive eye contact with the patient and either hinted at or explicitly made reference to the possibility of death. In the parent's view, this had been the underlying cause of the patient's upset both before and after the surgery.

Discussion:

We are not used to seeing informed consent as a safety issue. A legal requirement? A pillar of medical professionalism? A critical component of rapport with our patients? A compliance issue? A subject of controversy? A form to sign? A documentation challenge? Informed consent is all those things. However, it is not obvious that an improper informed consent should put us at risk of compromising safety. Likewise, a professionally executed informed consent process should logically confer no protection against a safety breach.

However, the physician who reported this case clearly saw it as an "incident" and seems to have connected the dots. A conversation about safety and consent is thus warranted. It is not our intention to assert that the informed consent discussion was definitely the cause of the unpleasant (and potentially unsafe) emergence, but to raise the possibility.

Kain and colleagues[1] prospectively assessed preoperative anxiety with a validated scale.[2] The children were then observed for emergence delirium and some other phenomena less relevant to our discussion. The odds of emergence delirium increased 10 percent for each incremental increase in preoperative anxiety. Others found similar support for this intuitive expectation.[3-4]

The anxiety observed by the anesthesia team may have been attributed to flagging courage, not uncommon in this age group. However, how common is it for a child to reject intravenous sedation with an I.V. in place? In retrospect, considering the complexity of children's views of death,[5] the patient may have equated the administration of this first dose with fearful possibilities. After all, it is not like adults do much better with being confronted with mortality.

Informed consent has evolved from being seen as an event to being understood as a process indistinguishable from establishment of rapport.[6] Although this observation is decades old, the event-based approach, in which informed consent is a two-sentence discussion near the end of the pre-anesthesia visit followed by assaulting the patient with a form and a pen, seems to have been the approach here. This, plus the possible lack of training of the resident in informed consent, set the resident up for failure. Discussing the definitions and epidemiology of

emergence phenomena is beyond our scope; we recommend the review of Vlajkovic and Sindjelic.[7] We will also defer discussion of the relative overdose that led to desaturation and disordered breathing for a period of time.

We were able to get more information about this case. The consent form at this particular institution did mention death. Induction was with propofol. Sevoflurane and midazolam were also used, and a total of 4 micrograms per kg of fentanyl had been administered in the O.R. Dexmedetomidine was not given. The attending discussed the case privately with the resident soon after learning from the mother what had occurred. The attending accepted responsibility for relinquishing leadership over the informed consent, thus setting the resident up to fail. The resident accepted responsibility for his contribution and was in fact horrified at the distress he had caused the child. He related that he was always taught to make eye contact with children during patient encounters. After all, he had just seen his attending negotiate the I.V. start directly with the 9-year-old even though mask induction had been offered as an alternative. The resident was also under the impression that the possibility of death, however remote, belonged in any informed consent discussion. Only on his third rotation involving direct peri-operative care, he did not have a further approach to assimilating these issues. It is unclear if informed consent training had been available and missed or had not been offered. The attending called the family again, conveyed his own apology and that of the resident for their respective contributions. The patient's mother stated that all she wanted was some learning to result from the negative experience, and she was satisfied that this had clearly occurred.

The resident wished he had not mentioned death, but he was not wrong in making eye contact with the child. Our contacts with children set the tone for a lifetime of hopefully positive relationships with physicians. We can never cover all the risks, and an important part of the patient-physician relationship is negotiating, together when possible, what risks to mention. There are certainly risks, for example nausea, that a 9-year-old adult-in-training can handle. On the other hand, some risks, such as effects of anesthetics on the developing brain, may not (yet) rise to accepted scientific credibility.[8] Therefore, there may literally be nothing to disclose and therefore nothing to discuss, unless the patient asks.

When discussing risk of elective interventions with adults, we negotiate a minefield of controversy every time.[9] Should the possibility of death be disclosed? Since it is relevant and possible, many would argue that death should sometimes be mentioned, but in the right way, for the right case, at the right time, to a patient who can deal with the idea. Furthermore, the remote possibility of death is often framed by analogy: riding in an automobile, or even crossing the street. Such analogies are mathematically honest, at least existing in the right order of magnitude. And when our 9-year-old is 18 and at the age of consent, what better way to ease him into the adult responsibility of facing risk?

The right time, the best time, may not be just prior to going to the O.R. When discussed in the clinic, days prior to surgery, the patient may be more relaxed and less likely to feel intimidated into accepting a risk they are not comfortable with. The bottom line? One is probably on firm legal and ethical ground by asking: What would a reasonable patient want to know, and how would they want to learn it? What would a reasonable physician present? When and how?

From this discussion, we believe we have learned that:

1. Resident physicians have an important role in informed consent but should be supervised, formally evaluated, deliberately coached and only perform independently when they have been "signed off" on this skill to the extent possible. Grey areas should be acknowledged. This is already practiced in many programs. The same would be true in non-teaching practice settings in which non-physicians obtain signatures on consent forms, even if the physician discusses risk with the patients.
2. Standardized patients would seem to be an ideal vehicle for this education.[10] Such resources are time-consuming and expensive but can be shared with trainees in virtually all specialties.
3. Our job is ridiculously complex, and attention to a constructive approach to informed consent can slip through the cracks, even for experienced and otherwise competent anesthesiologists.
4. It is at least a strong possibility that the informed consent process, and the resulting gain or loss in rapport, can have a concrete effect on the safety of subsequent care.
5. Postoperative telephone follow-up of outpatients by non-physician staff members is important and useful, but if things did not go perfectly there is no substitute for the physician doing this personally. Such follow up, besides having the obvious benefits on patient satisfaction, subsequent litigation and ethical care, can inform safety. In this case, the anesthesia team would have missed a critical learning opportunity had this not been done.

References:

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