



Learning From Others:

Anesthesia
Quality Institute
ANESTHESIA INCIDENT
REPORTING SYSTEM (AIRS)

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: "To Test or Not To Test, That is the Question"

A woman of child-bearing age presented for dilatation and curettage of the uterus due to a history of chronic, heavy menstruation. A pre-op pregnancy test was reportedly negative. The D&C was performed, at which time it was identified that the patient was approximately eight weeks pregnant. It was later discovered that the patient's pre-operative assessment was populated with a previous negative test result, rather than the later positive result.

Discussion:

This is a very sad case, in which a pregnancy that was desired by the patient was lost due to inaccurate pre-op data. It highlights three separate but important patient safety concepts. Pre-operative pregnancy testing is the first and most obvious. The incident reporter indicated under "lessons learned" that all women of child-bearing age should have a current negative pregnancy test before entering the O.R. Despite decades of conversation within the anesthesia community, this remains a controversial issue. Unsuspected pregnancy occurs in 0.3-2.6 percent of women undergoing elective surgery,¹⁻³ suggesting that testing might be indicated for all. The vast majority of cases in which an unsuspected pregnancy test is found have a subsequent change in care, usually cancellation or delay of surgery. In the case described above, the pregnancy test results would have altered the surgical plan.

However, issues of cost and ethics must also be considered. In 2003, a task force of members from the ASA Committee on Ethics and the Committee on Standards and Practice Parameters indicated that the "state of pregnancy is very personal information that belongs to the patient, and it does not alter her right to proceed with anesthesia and surgery if she so desires,"⁴ and that a pregnancy test should be offered, but not required unless there is a medical need to know the results. Similarly, the 2006 results of an electronic mailing list poll of members of the ASA Committee on Practice Management demonstrated significant differences of opinion and practice.⁵ Most recently the ASA Practice Advisory

for Preanesthesia Evaluation stated that "pregnancy testing **may** (our emphasis) be offered to female patients of childbearing age and for whom the result would alter the patient's management."⁶ Further, only 7 percent of consultants and 17 percent of ASA members polled felt that pregnancy testing should be mandatory for all.

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The corroboration of medical information, especially the information available in electronic health records (EHRs), is the second patient safety issue. The use of the phrase "previous test populated the patient's pre-operative assessment" suggests that the data were either "copied and pasted," or automatically filled into an electronic pre-op assessment. The proliferation of EHRs has greatly increased the ease (and likely frequency) of copying patient data from one note to another. With a simple "control C" and "control V," one can complete an entirely "new" note, complete with all the errors present in the source.





A study from the Veterans Administration system published seven years ago demonstrated that 25 percent of patients' charts had evidence of copying.⁷ More recently, Thornton et al. found that 74 percent of ICU notes contained more than 20 percent copied information.⁸ Weir et al. found an average of more than one error per copied patient note, demonstrating the potential for dangerous proliferation of misinformation when using this technique.⁹ Health information technology, including corroboration of results, was the leading patient safety concern in 2013.¹⁰

Little information exists about the impact of electronic anesthesia records on misinformation due to copying. An estimated 75 percent of academic anesthesia practices will have an anesthesia information management system by the end of 2014,¹¹ suggesting that a large number of patients are at risk for this type of error. Wilbanks¹² and Driscoll¹³ each found high rates of missing information within anesthesia records, most commonly gas flow rates, medication administration times and neuromuscular function testing,¹² and even potentially critical information such as depth of ETT placement, ease of mask ventilation and laryngoscopic view.¹³ These do not directly relate to patient history but do suggest concerns about accurate charting in general. Some copying or auto-populating of EHRs is likely helpful to improve efficiency and decrease transcription errors. However, much is still to be learned about the best ways to confirm the accuracy of this information and to prevent misinformation from moving forward in patients' charts.

The final patient safety issue highlighted in this case relates to how practitioners respond to adverse events. The discovery that the patient was pregnant was likely very stressful to the care providers. The strong emotional response to these events by providers has been coined the "second victim" effect.¹⁴ The emotional impact of these events tends to proceed along a relatively predictable path.¹⁵ The desire to prevent future episodes of the event, both for patient safety and to protect oneself from future emotional distress, is understandable. The reporter of the case above stated that all women should have a pregnancy test prior to any surgery and anesthesia. Clearly this is not the consensus view, but *would* likely prevent any future instances of this event. As humans, we are all victims of our anecdotes. Quality and safety experts are trained to look beyond emotional issues and identify the root cause(s) of adverse events, to look for system-based fixes and, hopefully, to care for the second victims involved in adverse events (see the AIRS Pro:Con article on "Root Cause Analysis" in the June 2014 ASA NEWSLETTER).

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