# [OS2-101] Integration of Mandatory QA Reporting in AIMS Results in 100% Completion Rate

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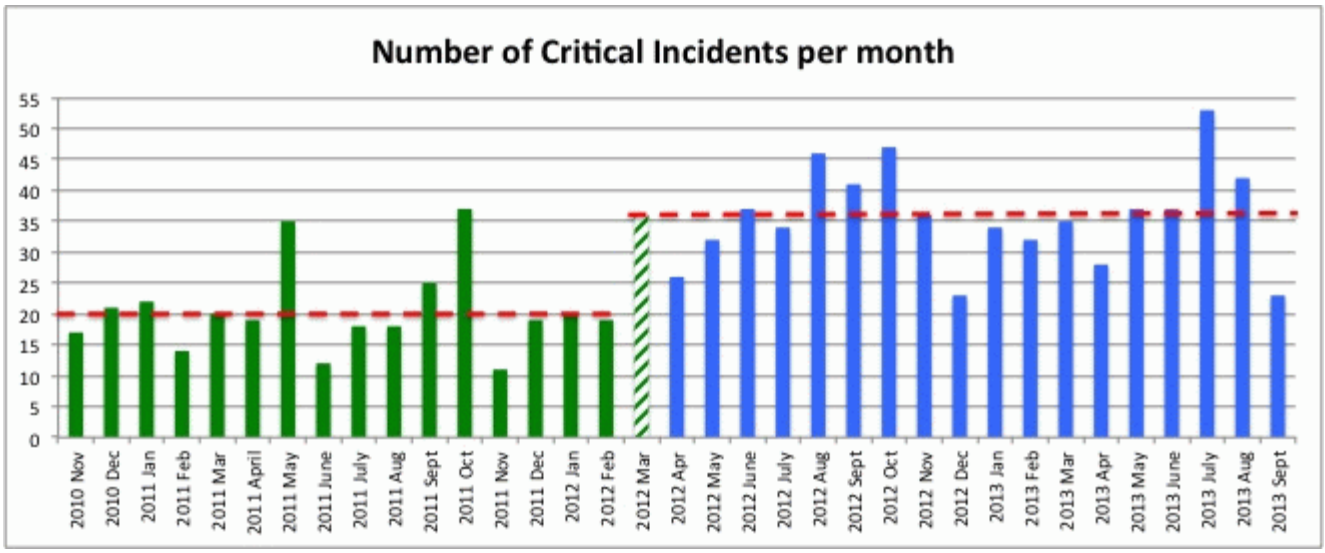
Introduction:
Accurate reporting of critical incidents is vital to ensuring an environment of safety and continued improvement. Integrating the electronic documentation of a critical incident into the workflow of the individual anesthesiologist may increase the capture rate for such events (1).
Background:
Traditional methods of QA data review come from three sources: institutional audits, closed claims analysis and large-scale studies of anesthesia-related cardiac arrest. Data capture is commonly on paper or a separate database, which was labor-intensive and led to inaccuracies and underreporting.
In 2008, Lucile Packard Children’s Hospital implemented Cerner’s SurgiNet Anesthesia Management, a commercial Anesthesia Information Management System (AIMS). In November 2010, an internal Quality Assurance (QA) reporting structure was embedded in the intraoperative documentation that allowed anesthesiologists to voluntarily report up to 52 different critical incidents. After March 2012, reporting was mandated in order to complete the anesthetic record.
Methods:
We reviewed the number of critical incidents before and after implementation of a mandatory template within the AIMS.
Results:
During 16 months of voluntary self-reporting, the average monthly number of anesthetic cases was 1052 and the average monthly number of reported critical incidents was 20. After the implementation of mandatory reporting, caseload remained the same but the average monthly number of reported critical incidents increased to 36 (Figure 1). This was a clearly significant change in mean ($p$-value $< 0.001$).
The majority of critical incidents reported were respiratory (49.6%) or cardiac (23.2%), with the most commonly reported being laryngospasm (17%), hypotension (9.6%), bronchospasm (9.5%), hypoxia (9%), bradyarrhythmia (5.6%) and difficult intubation (5.4%). Our results are comparable with the published literature for institutional and national reviews.
Discussion:
Mandating QA reporting for all cases and integrating data entry our standard work permitted calculation of critical incident incidence and encouraged our anesthesiologists to assess for near-misses and critical events with every patient. Analyzing these incidents can lead to insight into factors that enable them, and subsequent development of processes to prevent them. Future developments will necessitate support from commercial vendors to incorporate QA in model systems to avoid duplicate documentation, as well as clinical decision support that will prompt accurate and timely QA documentation.
Conclusion:
Linking the reporting of critical incidents to the electronic anesthetic record improved self-reporting by anesthesiologists in our institution.

Reference:
1. Peterfreund et al. Evaluation of a mandatory quality data capture in anesthesia: a secure electronic system to capture quality assurance information linked to an automated anesthesia record. Anesth Analg 2011;112:1218-25.


Number of Critical Incidents per month
55
50
45
40
35
30
25
20
15
10
5
0
2010 Nov
2010 Dec
2011 Jan
2011 Feb
2011 Mar
2011 April
2011 May
2011 June
2011 July
2011 Aug
2011 Sept
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