

## [OS1-80] Using the Electronic Health Record to Improve Self-Reporting of Unanticipated Events, Complications, and Adverse Reactions to Anesthesia

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**Introduction.** According to the Centers for Medicare and Medicaid Services and The Joint Commission, hospitals are required to document and track unanticipated events, complications, or adverse reactions to anesthesia. Institutional audits revealed that in addition to gaps in documentation, anesthesia providers would frequently fail to self-report that an event occurred. In 2012, self-reporting an event required paper documentation (PD) or an email indicating the event that occurred.

In an effort to facilitate self-reporting of adverse events, a list of reportable anesthesia events (RAE) was built into the EHR (EPIC). For each anesthetic, the anesthesia provider was required to indicate (at post-anesthesia handoff and after the patient had recovered from anesthesia) if one or more of RAE occurred.

The aim of this quality improvement project was to assess whether use of the new electronic documentation (ED) improved self-reporting of anesthesia events. Specifically, we compared the total number of events and the self-reporting of events in the new ED to the previous PD. We also determined the incidence of cases lacking documentation as to whether an event occurred (non-compliance) after implementation of the new ED system.

**Methods.** The total number of events and the total number of self-reported events were collected from paper records from 01/01/2012 to 03/20/2013. The same data was collected from 03/21/2013 to 09/30/2013 from the EHR. All data (ED and PD) were collected on a weekly basis and tabulated in a secured database. In addition, all cases lacking documentation were recorded. Anesthesia providers received two notifications to complete the required documentation before cases were considered non-compliant. Airway, respiratory, cardiovascular, neurological, positioning injuries, as well as complications related to regional anesthesia, central line insertion, TEE, medication, equipment and unanticipated admission were recorded.

**Results.** During the reporting period with PD, 71 events met department criteria for review. Of these events, only 8 (11.2%) were self-reported by the anesthesia provider. The remaining events were identified through the hospital's incident reporting system or by referral from another anesthesia provider or clinical department. Since ED events began in the EHR, 94 events met the criteria for review and 71 (75.5%) were self-reported (Table 1). Over the 6-month period ED was completed in the EHR in over 98% of the cases.

**Discussion.** Following implementation of a simple, ED in the EHR, self-reporting of unanticipated events, complications, or adverse reactions to anesthesia increased from 11.2% to 75.5%. Less than 2% of the cases failed to indicate whether an adverse anesthetic event had occurred. ED effectively maximized self-reporting and documentation of RAE in accordance with regulatory requirements.

**Table 1. Events Meeting Criteria for Review**

	<b>Paper Record</b> <b>January 1, 2012 - March 20, 2013</b>	<b>Electronic Record</b> <b>March 21, 2013 to September 30, 2013</b>
<b>Number of months</b>	<b>15</b>	<b>6</b>
<b>Number of Events</b>	<b>71</b>	<b>94</b>
<b>Number of Self-Reported Events</b>	<b>8</b>	<b>71</b>
<b>Self-Reported Events (%)</b>	<b>11.2</b>	<b>75.5</b>