ELECTRONIC QUALITY IMPROVEMENT SYSTEM IMPROVES ANESTHESIA ADVERE EVENTS REPORTING COMPLIANCE

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Category: Patient Safety

Background
Although confidential adverse event (AE) self-reporting improves patient safety, high work production pressure, reduced patient care time, and inefficient electronic medical record (EMR) reporting interfaces impose increased time burdens for health care professionals. These factors hinder the completion of incident reports

Objectives
To implement a non-discoverable electronic reporting system for adverse events, system issues, errors, and near misses that is embedded in the EMR workflow to improve reporting compliance and facilitate system quality improvement (QI).

Methods
Historically, all perioperative anesthetic AEs were reported on paper, even after implementation of the EMR in 2011, in an effort to maintain the confidentiality of the QI process. In 2017, the anesthetic EMR was redesigned to require a legally non-discoverable "Yes/No" reporting of adverse events for every anesthetic encounter before the record was completed. The reporting system facilitates a seamless automated transfer of demographic and procedural data from the EMR to the incident report, which was stored in a separate, protected, encrypted database/server. This process allowed confidential reporting of AE's, errors, near misses, and system issues by health care providers. The reports were available for immediate access by departmental QI personnel. Additionally, the system generated de-identified reports for submission to national databases.

Results
Between 2011 and 2016, AE reports decreased from 186/10,000 to 70/10,000 cases per year. The number of submitted event reports increased to 334/10,000 cases annually with the redesigned electronic QI reporting system. The convenient and easy reporting process enabled care providers to report near misses and system issues in addition to AE's and errors. Health care providers identified safety issues for immediate action by QI committee members and administrators. Separation of reported events from individual patient medical records maintained the legal protection of the QI data.

Discussion
An electronic incident reporting system designed in line with routine clinical practice allowed efficient and systematic data entry that enabled immediate review and intervention. This straightforward electronic reporting system increased reporting compliance. We plan to expand this system to hospital-wide sedation sites to improve reporting and system quality