Utilizing Data in a Perioperative Electronic Health Record to Drive Quality Improvement

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Introduction

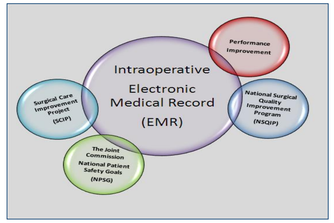
Overlook Medical Center

- 504 Licensed Beds
- 3,500+ Employees
- 1,290+ Physicians
- 25,177 Admissions
- 6,266 IP Surgeries
- 10,349 OP Surgeries
- 16 Inpatient Units
- 88,334 Emergency Visits
- 204,026 Outpatient Visits

Purpose

An estimated 2.5 to 3.5 million surgical patients per year experience unintended harm directly related to surgical interventions. Standardization and compliance of documentation in key data entry fields in the Perioperative electronic medical record heightens awareness to possible complications and drives standards for consistency in nursing practice.

An electronic medical record provides the health care team with seamless health information. Compliance of electronic documentation improves patient care, streamlines processes and provides data necessary to meet SCIP protocols and The Joint Commission NPSG. Standardizing processes allows for consistency of information and workflow.



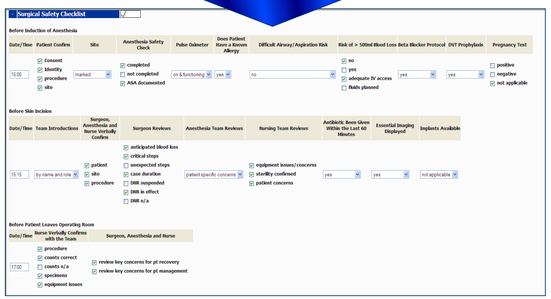
The purpose of this study is to measure data entry in specific fields within the Intraoperative EMR and analyze how it affects adherence to National Patient Safety Goals and Surgical Care Improvement Project protocol.

What Drives the EMR

2012 Critical Access Hospital National Patient Safety Goals

The purpose of the National Patient Safety Goals is to improve patient safety. The goals focus on problems in health care safety and how to solve them.

Use medicines safely	
NPSG.03.04.01	Before a procedure, label medicines that are not labeled. For example, medicines in syringes, cups and basins. Do this in the area where medicines and supplies are set up.
NPSG.03.05.01	Take extra care with patients who take medicines to thin their blood.
NPSG.03.06.01	Record and pass along correct information about a patient's medicines. Find out what medicines the patient is taking. Compare those medicines to new medicines given to the patient. Make sure the patient knows which medicines to take when they are at home. Tell the patient it is important to bring their up-to-date list of medicines every time they visit a doctor.
Prevent mistakes in surgery	Make sure that the correct surgery is done on the correct patient and at the correct place on the patient's body.
UP.01.01.01	Mark the correct place on the patient's body where the surgery is to be done.
UP.01.02.01	Pause before the surgery to make sure that a mistake is not being made.
UP.01.03.01	

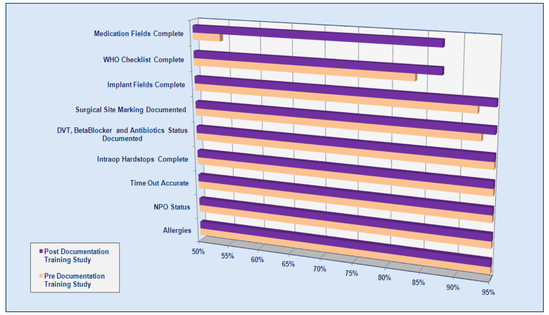


Analysis from the EMR

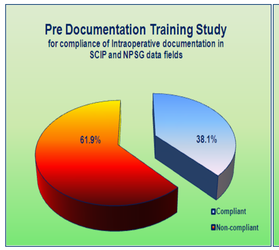
Key data field elements pertaining to SCIP protocol and NPSG were built into the Perioperative EMR with the last upgrade of the electronic medical record computer application and implemented in the fall of 2011. A modified version of the World Health Organization (WHO) Checklist was built into the EMR. Some of the fields are set up as "hard stops" while others do not prevent the chart from being closed even if not completed. Daily audits are routinely performed and an addendum request log is kept. The need for an audit to be done, a documentation class to be created and education on the importance of proper documentation became apparent based on the addendum log listings. An audit of 160 Intraoperative electronic records was analyzed for documentation compliance. Data was collected from June 2012 through July 2012.

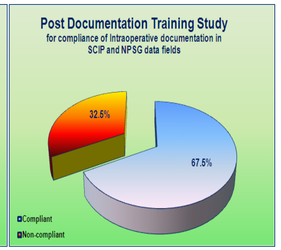
Our areas of focus for analysis included:

- Allergies
- NPO Status
- Surgical Site Identification
- Hair Clipping/Prep
- Medication Documentation
- Implant Documentation
- Hard Stop Fields Completed
- Time Out Accuracy
- Surgical Safety Checklist Completion
- DVT, Beta Blocker and Antibiotic Documentation

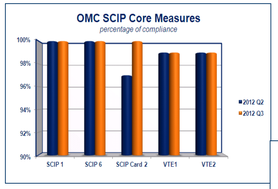


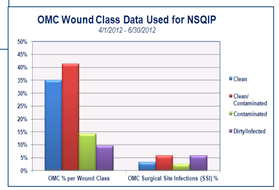
Data analysis showed a 36% compliance rate of complete documentation of the required fields. In October 2012, results were communicated by use of reports and graphs. Various training methods were implemented to heighten awareness to all Intraoperative nurses; including email blasts and communication boards. A standardized training course was created and training began with selected nurses designated as Documentation Trainers. The training was then given to all OR preceptors as a pilot. Two weeks after the training was completed, a random audit of 40 records was performed to measure compliance of the newly implemented processes. Compliance increased by 29.4% in the two week period. Our goal is to train all users and reach 100% compliance by second quarter 2013.





Examples of how Perioperative documentation is used to measure patient outcomes by Performance Improvement departments





Conclusion

The study demonstrates the importance of proper documentation and the need for a standardized documentation course. Key data in an EMR is communicated more efficiently and more timely to Performance Improvement departments with complete documentation. What became apparent was the need for routine auditing and ground roots communication of the auditing results, regular in-services on proper documentation and the creation of standardized training. Quality control processes within our own department need development and implementation.

The data analysis shows that with diligent adherence to these processes, great improvement in documentation compliance is gained in a short amount of time. We found that compliance of electronic documentation in key data fields within the EMR streamlines processes and also provides data necessary to meet SCIP protocols, The Joint Commission NPSG.

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WHO Surgical Safety Checklist. Retrieved July 31, 2009 from the World Health Organization Website: http://www.who.int/patientsafety/safesurgery/ss_checklist/en/