

Capture of Pre-Op Risk Variable (Dyspnea) to Ensure Accurate Risk Stratification of Post-Op Outcomes

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Introduction

Capture of applicable pre-operative risk factors is important to ensure accurate risk stratification of post-operative complications. One cause of failure to capture risk factors for NSQIP registry data entry is deficient documentation.

Problem Statement

At Memorial Hermann Hospital The Woodlands, the failure to capture dyspnea as a pre-operative risk factor was related to the lack of two required documentation qualifiers when dyspnea was noted as the patient's chronic/baseline state: 1) at rest or 2) with moderate exertion. Accurate reporting of outcomes data has implications for an organization's quality of care metrics and financial stewardship of organizational resources. Outcomes data reflecting trends of undesirable "quality of care" are usually a catalyst for performance/process improvement in hospitals. Skillful risk stratification is imperative to prevent the diversion of organizational resources to correct trends, which are not actually in evidence.

- A Robust Process Improvement methodology was used to address this documentation matter.

Data Collection Method

Retrospective EHR reviews for dyspnea documentation qualifiers (at rest or with moderate exertion) were performed pre/post-initiative.

Robust Process Improvement Tools

- Project and Team Charter
- WWW Document (Who, What, When)
- Voice of Customer
- Process Mapping

Project Goals

Establish reliable process for documentation of necessary qualifiers to ensure capture of pre-op risk factor: dyspnea (at rest or with moderate exertion) such that there are zero defects per month.



Dyspnea (Pre-operative Risk Factor) - Intent of this variable is to capture usual or typical level of dyspnea (patient's baseline), within 30-days prior to surgery. That is, reflect patients' chronic disease states which may lead to intubation prior to surgery; rather than acute respiratory conditions.

Characterize patients' dyspnea status when they were in their usual state of health, prior to the onset of the acute illness, within the 30 days prior to surgery.

- (1) No dyspnea
- (2) Dyspnea upon moderate exertion (for example-is unable to climb one flight of stairs without shortness of breath)
- (3) Dyspnea at rest (for example: cannot complete a sentence without needing to take a breath). ACS NSQIP, 2013

Key Project Actions

- Mapped process with OR clinicians
- Implemented interim plan to correct deficiency
- Collaborated with MHHS System Clinical Practice Council
- Developed Nurse and Physician education
- Revised form (finalized initiative)

Data Outcomes

- Pre-Initiative data revealed a 5.1% defect rate (15 of 293 patients) in an 84 day period. Defects were defined as missed opportunities to capture dyspnea as a pre-operative risk factor in NSQIP-eligible patients, for whom dyspnea was identified as a pre-operative baseline condition.
- Post-initiative outcomes indicated a 2.71% rate (8 of 293 patients) in an 84 day period. This is a 47% decrease in defects.

Incidental Outcomes

- Successful—Rapid Cycle Improvement Strategy
- Perceived value in committed nurse-physician collaboration for robust process improvement. Surgeon Champions, Anesthesiologists, and Anesthesia Clinical Practice Council worked very well with OR Clinicians/Leadership and SCR
- Standardization of new system-wide process
- When collaboration is deliberate and effective, the patients' best interests are served

Conclusion

Identification of an organization's opportunities for improvement is dependent upon accurate data collection and analyses. Ensuring accurate pre-operative risk factor capture is important for optimizing the reporting of post-operative complications.