Real Time Quality Initiatives Dashboard Within the Electronic Medical Record

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Background
The organization’s commitment to innovating care delivery and improving outcomes capitalized on the opportunity to leverage new technology within the electronic medical record (EMR). Quality indicators such as ventilator acquired pneumonia bundle compliance (VAP), vaccine compliance (Influenza and Pneumococcal), catheter associated urinary tract infections (CAUTI), falls, and hospital acquired pressure ulcers were generally reviewed retrospectively, resulting in a missed opportunity to improve practice in real time.

The QI dashboard strengthened operations in clinical workflow and has improved interprofessional team focus on preventing patient harm.
- Decreased falls from 3.61 to 3.03/patient days
- Decreased Hospital Acquired Pressure Ulcers from 1.73 to 0.82/patient days
- Decreased VAP Rate from 0.95 to 0.37/1000 ventilator days
- Decreased CAUTI Rate from 3.5 to 1.8 infections per 1000 catheter days
- Statistically significant reduction p-value = <0.001
- Standard deviation decreased from 1.23 to 0.90

Conclusion
- The QI dashboard in the EMR provides immediate, and actionable information for use during patient centered rounding, RN/MD rounding and Hand Off Communication.
- The QI dashboard is a “quick view” of quality indicators and allows direct charting into the patient’s individual record.
- The organization has used the methodology and tools to develop additional dashboards:
  - Anticoagulation,
  - Antimicrobial stewardship,
  - Phenylketonuria management,
  - Population health.

Methods
Nursing Informatics and information technology designed an interactive tool by mapping key discreet data elements to quality and patient safety indicators. The clinical decision support tools provides real time information, improved efficiency with the ability to order and document from the dashboard in fewer clicks, and a comprehensive tool to be used by the entire care team during patient care rounds.

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