Meaningful Use…Meaningful Outcomes: A Nursing-Focused Success Story of a Computerized Clinical Information System

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Purpose

The transition from a paper to an electronic health record (EHR) environment is a challenging process that impacts the entire health care team. A primary strategy of the project was to improve adherence to evidence-based care through incorporation of clinical order sets and nursing protocols into the CPOE application.

Strategy and Implementation

The implementation of a computerized clinical information system began in 2004. The system is named PLATO (Physician Leadership for Accurate and Timely Orders). A multidisciplinary team was identified including physicians, nursing leaders and staff nurses, Clinical IT, Quality, Lab and Pharmacy. Current workflows were identified, new workflow using PLATO was established and design and configuration of computer screens and order sets were accomplished. Users were extensively educated. Direct care nurses, called Super Users were identified from each unit to have advanced training in order to support their individual units. In addition to electronic entry of physician orders, nurses enter home meds, patient weights and vital signs. Upon recognition of the value of CPOE as evidenced by improved efficiency and outcomes, nurses expressed the desire to incorporate nursing protocols and screening into PLATO as a driver to improve outcomes for nursing sensitive and disease specific measures.

Significance

Use of evidence-based order sets has standardized care processes and enhanced multidisciplinary communication. Order sets include not only those used by physicians, but also nursing protocols created for RNs. Computerized orders and protocols have enhanced the ability to deliver coordinated care.

Figure 1

Diabetes Categorization in EHR to Identify Educational Needs of the Patient with Diabetes

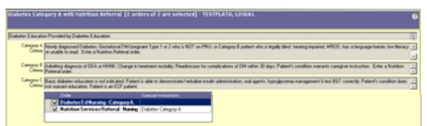

Figure 2

Outcome Measures for Diabetes Categorization in EMR

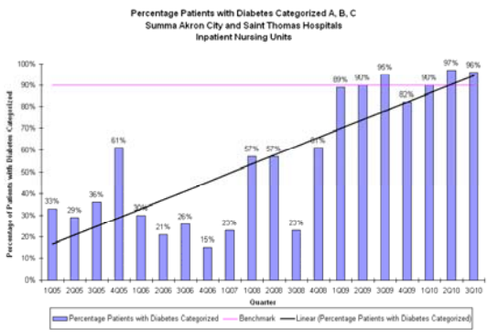

Figure 3

Nursing Wound Prevention and Care Protocol in EHR

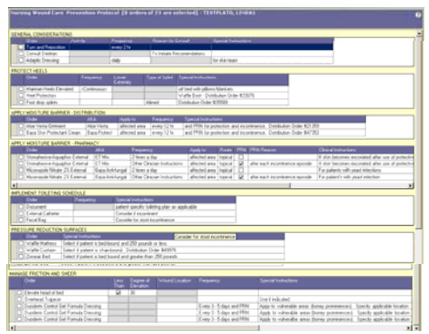

Figure 4

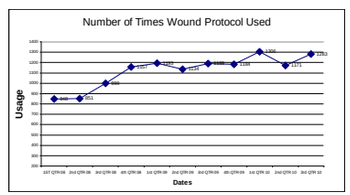

Figure 5

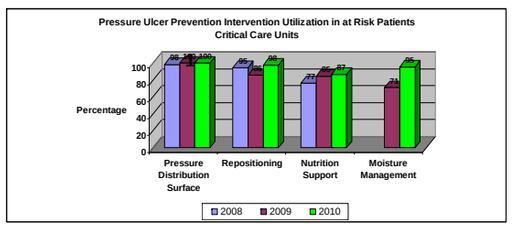

Figure 6

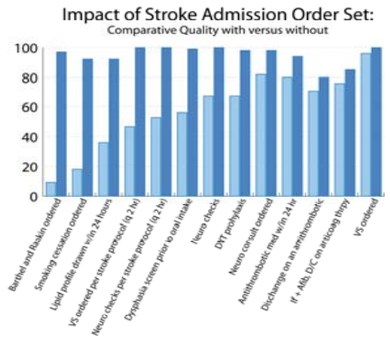

Figure 7

Nursing Stroke Protocol is initiated if Admission Orders for Stroke was not used

Figure 8

Figure 9

Evaluation

NDNQI® data and other quality data is utilized to evaluate effectiveness of computerized evidence-based order sets and nursing initiated computerized protocols. As evidenced by the outcome data displayed within this abstract, meaningful outcomes are being achieved. Technology is a significant tool to assist clinicians in delivering high quality patient care.

Conclusion

Innovative use of technology improves adherence to best practices. Nursing protocols developed at Summa include Stroke Protocol, Wound Care Protocol, ED Triage Protocols, Falls Risk and Diabetes Categorization. A well-designed system ultimately enables more time for nurses at the patient's bedside.