

Program Development and Implementation of an Integrated Patient Record Using a Wireless Tablet for Nurse Documentation in a Gastrointestinal Endoscopy Unit

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Introduction and Background:

Nurse documentation requirements continuously expand to demonstrate compliance with regulatory guidelines, advances in patient safety and evidence based practice guidelines. Expanded documentation requirements place increased pressure on the bedside nurse. Paper documentation often has missing, illegible or incomplete information making it difficult to meet 100% compliance. Health care reform is underway and financial reimbursement will be tied to measurements of quality, safety and efficiency. This information is best collected using electronic documentation systems. Gathering this information manually is inefficient and requires utilization of scarce personnel resources and adds to the documentation burden of the nurse. The MGH GI Endoscopy Unit designed and implemented an electronic record that replaced paper documentation forms in 2012. This poster will chronicle the decision making process for hardware solutions, software customization, development of an education plan and the implementation process. Particular challenges included space issues, education, training and workflow changes.

Methods

Unit leadership assembled a collaborative interdisciplinary workgroup including a technical team and GI nurses to assess documentation needs and workflows. The system needed to encompass three care areas: pre/intra and post procedure. Screens were developed to support the nursing workflow. The Anesthesia Department had experienced success with electronic documentation and the decision was made to customize this program to meet the needs of the GI Endoscopy nurse record. This choice also allowed the anesthesia and nurse records to be partially integrated. The nurse record had vital signs automatically downloaded and records available in the hospital EHR. There was insufficient space for desktop computers or computers on wheels. Nurses needed to document from the patient bedside especially during sedation administration when assessments are documented every two to three minutes. Based on these requirements the technical team presented a wireless tablet. Logging in to the computer needed to be both secure and fast avoiding delays in care. Single sign on software using RFID badges and e-signatures was incorporated into the tablet. Easy to use features like color coding and highlighting missed fields were included. Nurses developed an educational computer tutorial followed by “hands on” training sessions with super user support during go-live.

Results

There was a staggered roll out between three different locations over a five month period allowing for identification of issues before the next “go live”. Unanticipated problems with inadequate wireless coverage, scanner failures, difficulty logging in and unsynchronized times between the program, tablet and the vital sign monitors. A small number of records do not successfully post to the hospital EHR requiring careful monitoring. Education required more resources than were initially planned and some users struggled with the new technology, though all users attained competency. Opportunities for improvement in patient waiting times have been identified and other process improvement initiatives are ongoing.

Discussion

The system has been successfully in use for almost two years. GI Endoscopy electronic nurse records are accurate, legible and compliant with documentation standards and available in the EHR. Both technical and clinical supports were imperative for the successful implementation. Ongoing support and quality assessments continue.

References

1. Carter, J., 2008. *Electronic Health Records 2nd Ed. Books Publishing, USA*
2. Thompson, J., *Six best practices for EHR implementation. Healthcare IT News, Oct. 2010. Accessed from: <http://www.healthcareitnews.com/news/six-best-practices-ehr-implementation>*