



The Impact of Innovative Technology on Quality, Safety and Patient Outcomes

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Problem Statement: Health information technology offers hospitals a means to manage labor cost better by leveraging the data collected through transactional systems in the electronic health record. Data collected can be used to drive clinical staffing and assignments and deliver superior clinical and financial outcomes. Utilizing the innovations in technology provides clinical decision support to hospital organizations that can be used to improve patient outcomes, increase patient and employee satisfaction and provide care in a cost effective manner. Hospital organizations are faced with reducing their labor cost in providing excellent patient care in the midst of declining reimbursements. In order to be efficient, innovative ways must be developed to drive clinical transformation efforts to deliver exceptional clinical and financial outcomes. **Methods:** One solution is the utilization of Fast Healthcare Interoperability Resource (FHIR) in everyday clinical and business practices. This approach makes it easier for providers to access systems that exchange very specific, well-defined pieces of information required to make real time health care decisions. Providers can better manage patient's plan of care by developing evidence-based goals, track patient progress and make decisions based on the patient's individual needs. Another option is the utilization of evidenced based acuity systems to enhance patient safety and quality of care, while remaining fiscally responsible. In order to provide a patient with care based on best practices, hospitals have to evaluate staffing challenges and opportunities, and create new methods of nurse staffing that strengthen the relationship between nursing care and patient outcomes. Nursing workloads directly influence a nurse's ability to assess thoroughly and promote excellent patient outcome. Nursing leaders across the country utilize hours per patient day (HPPD) as the current standard to measure the productivity of nursing. It's a common measure used because healthcare organizations can benchmark similar units in one hospital as well as similar hospitals across the nation. Historically, HPPD treats all nursing hours equally, even though there can be considerable variation among nurses in education, experience, tenure, certification, and performance. Using the typical measure of HPPD can prevent nursing leadership from appropriately utilizing staffing?including the use of assistive personnel. Advances in technology allows hospital organizations to account for the number of direct care interventions, indirect care activities and non-clinical patient care hours by individual patient needs on a daily basis. An additional benefit of an acuity system is the robust data that can be collected during its utilizations. **Significance:** Organizations must be able to utilize the advances in technology in order to survive in an era of declining reimbursements. Nurses should be the voice for their specialized knowledge that will influence policies and shape the future of technology that will be implemented. Systems designed with clinical workflow in mind are more likely to improve nursing care, coordination of care and patient safety. Technology can be used to assist in the development of clinically proven workflows that can be used to not only improve patient and employee satisfaction, and increase the health of patients, but also reduce the cost of providing exceptional care.