

Secure Texting Used in a Post-Acute Pediatric Skilled Nursing Inpatient Setting: A Multidisciplinary Care Team Driven Communication System with Alarm and Alert Notification Management

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Abstract : Background: The use of an appropriate mode of communication among the multidisciplinary care team members regarding coordination of care is an extremely complicated yet important patient safety initiative. Effective communication among the team members(nursing staff, medical staff, respiratory therapists, rehabilitation therapists, patient-family services team...) become essential to develop a culture of trust and collaboration to deliver the highest quality care to patients and their families. The inpatient post-acute pediatrics, where children and their caregivers come for continuity of care, is no exception to the increasing use of text messages as a means to communication among clinicians. One such platform is the Vocera Communications (Vocera Smart Mobile App called Vocera Edge) allows the teams to use the application and share sensitive patient information through an encrypted platform using IOS company provided shared and assigned mobile devices. Objective: This paper discusses the quality initiative of implementing the transition from Vocera Smartbage to Vocera Edge Mobile App, technology advantage, use case expansion, and lessons learned about a secure alternative modality that allows sending and receiving secure text messages in a pediatric post-acute setting using an IOS device. This implementation process included all direct care staff, ancillary teams, and administrative teams on the clinical units. Methods: Our institution launched this transition from voice prompted hands-free Vocera Smartbage to Vocera Edge mobile based app for secure care team texting using a big bang approach during the first PDSA cycle. The pre and post implementation data was gathered using a qualitative survey of about 500 multidisciplinary team members to determine the ease of use of the application and its efficiency in care coordination. The technology was further expanded in its use by implementing clinical alerts and alarms notification using middleware integration with patient monitoring (Masimo) and life safety (Nurse call) systems. Additional use of the smart mobile iPhone use include pushing out apps like Lexicomp and Up to Date to have it readily available for users for evidence-based practice in medication and disease management. Results: Successful implementation of the communication system in a shared and assigned model with all of the multidisciplinary teams in our pediatric post-acute setting. In just a 3-month period post implementation, we noticed a 14% increase from 7,993 messages in 6 days in December 2020 to 9,116 messages in March 2021. This confirmed that all clinical and non-clinical teams were using this mode of communication for coordinating the care for their patients. System generated data analytics used in addition to the pre and post implementation staff survey for process evaluation. Conclusion: A secure texting option using a mobile device is a safe and efficient mode for care team communication and collaboration using technology in real time. This allows for the settings like post-acute pediatric care areas to be in line with the widespread use of mobile apps and technology in our mainstream healthcare.

Keywords : nursing informatics, mobile secure texting, multidisciplinary communication, pediatrics post acute care

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