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THEME: Measuring the Value

An Innovative Approach to Improving Interdisciplinary Communication

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Hospitals are complex organizations that employ several modes of communication including paging systems, telephones, face-to-face interactions, hand-written records and e-mail. Processes of care in large academic teaching hospitals rely on both rapid and efficient communication among several health care providers. Nurses and physicians in our organization expressed concern that this multilayered approach to communication lacked integration, did not support their clinical workflow, and resulted in frequent interruptions that compromised patient safety. Studies have shown that communication failures contribute significantly to medical error and have been cited by health care regulatory organizations as the leading single root cause of sentinel events in hospitals. We designed and implemented an innovative communication tool with the goal of improving communication efficiency and clinician workflow.

The Web-based Interdisciplinary Paging System (WIPS) is an intranet-based paging system that allows clinicians to communicate urgent and non-urgent patient care messages separately to improve workflow, improve physician response to urgent messages, and minimize interruptions. A key feature of this system is the nurse's clinical judgement as to whether an issue warrants an urgent (requiring a call back within 10 minutes) or non-urgent response. This is crucial because the WIPS system is designed to handle both message types but each in a different manner. Survey and focus group data from both nurses and physicians indicated improved communication, decreased workflow interruption and a high degree of acceptance satisfaction with the web-based paging system. This paper will describe our evaluation strategy and associated findings that may serve as a guide to other organizations.

The majority of participants were registered staff nurses (90%), female (92%), working full-time hours (80%). On a scale of 1 (low) to 9 (high), the highest rated items were adequacy of power to enter information (7.8), image of characters on screen (7.7), size of screen (7.7), and consistency of messages (7.7). The lowest rated items were flexibility of data entry (6.1) and satisfaction with data entry experience (5.9). There was a significant difference in the quality and timeliness of communication between experimental and control acute care units at post-test. No differences in evidence-based practice were found. The prototype system has the potential to improve nurses' collection and utilization of outcomes information.

ABOUT THE AUTHOR

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Barb Duffey-Rosenstein received her Bachelor of Science in Nursing from McMaster University in 1989 and a Master of Science degree in Nursing from the University of Toronto in 1993. She is currently the Senior Nursing Informatics Lead for Mount Sinai Hospital. She has held several positions in clinical practice and administration. Her current responsibilities include the development and coordination of clinical informatics processes that support professional nursing practice, the acquisition of nursing knowledge and both clinical and administrative decision making.

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Anita Low is the Nursing Unit Administrator for a general internal medicine unit. Anita obtained her Bachelor of Administrative Studies degree from York University and a Master of Health Services Management degree from Charles Sturt University in 2004. She has held several nursing leadership positions in diverse areas such as Research, Utilization Management and Administration. Anita's current responsibilities include the management of human, financial and physical resources of the 28-bed unit.