

# E-Health Strategies including Knowledge Acquisition and Management of Professional Nursing Practice in Acute Health Services

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In 2009 we have heard major statements about what a national e-health system will be like to work in. In this special edition, the journal papers focus on processes of professional nursing practice, which have applied, and interdisciplinary health knowledge management research from an informatics perspective. Five papers are included where authors contribute to show the importance of nursing input into information systems development where a paucity of champions are taking forward the nursing agenda in e-health. The areas highlighted concern: quality outcomes and nurse sensitive health data; new knowledge structures of benefit to professional health care workers; theoretical models for application to streamline multi-disciplinary care management and optimization of nurse related technologies and platforms to enhance productivity.

As nurse sensitive incidents contribute significantly to patient harm, the reporting, monitoring and management of them has emerged as a primary focus for staff at many levels in hospital services and most hospitals have policies committed to their systematic evaluation. Nurse managers and their frontline nurses play a substantive role in hospital clinical incident management as empirical evidence has established that the nurses' roles in ward hospital settings are fundamental for reducing adverse events. The development of information systems to support routine, systematic monitoring of clinical incidents relevant to the nurse practice environments is an important means for nurse managers to improve quality of health care, patient safety, and effectiveness of health care delivery. The first paper addresses these concerns and is titled "Limitations of Hospital Ward

Quality Monitoring Reporting in Australia: A Discussion Paper" (Xiaoquan Xu, Sai Lu, Trish Burton, Liza Heslop). It shows that many nurses at the frontline of ward settings may not receive meaningful information to support, monitor and maintain nursing care quality. In Australia, there is no agreed upon measures for minimum indicators of nursing care quality in ward settings. The concept of nursing sensitive indicators (NSIs) is emerging as a way or means to support ward-level nursing performance metrics. NSIs are clinical indicators sensitive to the input of nursing care and research evidence shows they are directly related to the activity of nurses in a ward setting. Ms Xu and others identify factors that have limited the development of ward-based quality monitoring and reporting.

The second paper titled "Supporting Nursing Services through a Research Framework and Reference Model" (Keith Toh, Liza Heslop, Trish Burton) provides an abstract representation for nursing services improvement. The scope provided by the framework for improvement strategies to support initiatives on medical and surgical units is for many levels of practice and is equally, if not more, comprehensive than the framework offered by Transforming the Care at the Bedside - a national program of the Robert Wood Johnson Foundation. The paper also outlines a service reference model prototype with entities and relationships to show the business services of nursing. Whilst it is important to show the business of nursing services, the prototype requires development.

The third paper titled "Electronic Medical Records

(EMR): Call for Empathy in the Patient-Clinician Relationship within a Technological Milieu: implications for professional nursing practice” (Martha Lodyga, Marcel Fredericks, Michael W.V. Ross, and Bill Kondellas) presents an investigation, with considerable technical and theoretical depth, on the effects of Electronic Medical Records (EMR) on the patient-clinician relationships. It provides an introduction to the Society-Culture-Personality model together with explanations of components such as the Document Management Systems (DMS), Paper-based (PB) and Electronic-based (EB and EMR). It analyses positive and negative impacts of EMR on the evolution of patient-clinician relationships. The concept of a new form of empathy in the age of technology – tele-empathy is explained. This paper provides a theoretical foundation of medical sociology that integrates the influence of EMR on patient-clinician relationships.

The fourth and final papers are titled “Personal Digital Assistants in Critical Care (Maureen Farrell, Ian Baldwin, and Nigel Fealy) and “Enhancing Clinical Nurse Workflow through Redesign of Networked Wireless Laptop Computers” (Liza Heslop, Gitesh K Raikundalia). The papers present case studies of the implementation of networked, wireless computers on a ward and offer a very useful insight into some of the issues. In the past, innovation in the form of new information technology has failed dismally because of lack of practical guidance and testing at the coalface. These studies have sought the direct input of nurses at the coalface to show the future directions of how improved access to patient data can be made possible by portable devices with mobile capacity. Recent research is also showing effects of EHR implementation on nurse-sensitive outcomes but more work is needed to support the nurse practice environment with technologies before we can reveal that the introduction of

EHR is associated with nursing outcomes.

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