# Canadian Journal of Nursing Informatics

http://cjni.net

Volume 1 Number 1 Spring 2006



**1st National Nursing Informatics Conference 2005 Proceedings**Nurses & Informatics: Transforming Healthcare
Sept 14 – 16th, 2005 – University of Toronto, Ontario

**CONCURRENT SESSIONS THEME 1: Informatics Innovations in Nursing Practice** 

# Development of a clinician-driven portable electronic patient record on an Acute Pain Management Service

by Dr. Elizabeth VanDenKerkhof & Rosemary Wilson, NP

#### **ABSTRACT**

**Background:** The introduction of information technology into health care delivery provides a unique opportunity to improve and expand clinical, research, and administrative information systems. Digital patient data provides readily accessible information on aspects and outcomes to clinicians providing patient care at the bedside, facilitating evidence-based clinical decision making. Additionally, up to the minute outcomes data contributes to timely continuous quality improvement and safety monitoring, research, administrative and policy initiatives. The combination of wireless technology and hand-held computers, which are widely used in other industries, are being developed for the management of health information with data capture at the point of care. The advantages of handheld computers are their relatively low cost, their portability and unobtrusiveness, and their ease of data sharing. This presentation will address the issues encountered during the development and implementation of a clinician-driven portable electronic chart on an Acute Pain Management Service in a Canadian tertiary care hospital.

## **Objectives:**

- 1. Describe what is meant by portable computing;
- 2. Identify the possible roles for portable computing in nursing documentation;
- 3. Describe the necessary steps in developing an electronic charting system;
- 4. To identify components of a needs assessment;
- 5. Outline the cost of implementing and supporting an electronic charting system in the clinical setting;
- 6. Identify the clinical and research value of such a system.
- 7. Present preliminary data

**Conclusion:** By the end of this presentation participants will have an understanding of the factors involved in the development, implementation and adoption of a portable electronic patient record.

#### **ABOUT THE AUTHORS**

#### Dr. Elizabeth VanDenKerkh

Dr. Elizabeth VanDenKerkhof is an assistant professor of nursing, anesthesiology and epidemiology at Queen's University. Dr. VanDenKerkhof's transdisciplinary program of research is dedicated to the advancement of the field of risk and outcomes assessment and monitoring from the patient, provider and system perspectives using innovative technologies. Three major themes describe her research program; patient outcomes, technology assessment, and methods to validate patient and provider use of technology. As Research Director for the Queen's University Anaesthesiology Informatics Laboratory she is involved in the development a clinical database that can be adapted to administrative, quality assurance, and research needs.

### Rosemary Wilson, NP

Rosemary Wilson is a Nurse Practitioner for acute pain and an Assistant Professor in the Queen's University School of Nursing. She is completing her PhD in Nursing Science at the University of Toronto with research on symptom management following orthopedic surgery. Her research contributions include the development and implementation of a web-based outcomes management and decision-support tool for use in interdisciplinary acute pain management practice. As Nursing Co-Director for the Queen's University Anaesthesiology Informatics Laboratory (QUAIL) she shapes and encourages the collection of large data sets of outcomes information for post-operative patients toward improving the quality of care received.