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**CONCURRENT SESSIONS THEME 2: Research Initiatives in Nursing Informatics**

**Integrating Outcomes Data Collection with Nursing Best Practice Guidelines at the Point-Of-Care**

*by Dr. Diane Doran & Greg McArthur*

**ABSTRACT**

This study's goal was to improve the utilization of outcomes information and best practice guidelines at the point of care (POC) using personal digital assistants (PDAs). This presentation focuses on development and testing of the Prototype System in the acute care sector.

**Methods:** A cross-sectional design was used, including workflow analysis and focus group interviews. A prototype system was designed that enabled nurses to use PDAs to simultaneously document patients' responses to treatment and to access electronically accessible resources to support clinical decision-making. The prototype was tested by a random sample of 8 nurses. The next phase involves usability testing of the Prototype System with standardized patients (actors).

**Main Findings:** In order to inform prototype design, data were collected by documenting nurses' episodes of information transfer. 39.8% of written information was recorded onto "personal paper" at the POC and later transcribed. Nurses often sought information away from the POC; for example, a centrally located health record or electronically accessible information such as laboratory results (68%), drug dictionary (5.6%), or policy/procedure (1.0%). The most frequent source of information for staff nurses was "colleagues", yet not all colleagues are able to offer evidence-based advice. The PDA eliminates duplicate charting, is customized to nurses' information needs and enables timely access to information to guide clinical decision-making.

**Conclusions:** The prototype system has the potential to improve ease of health information documentation and utilization of best practice guidelines at the point of care.

## ***ABOUT THE AUTHORS***

### **Dr. Diane Doran**

Dr. Diane Doran is a Professor, Interim Dean, and Associate Dean of Research and International Relations at the Faculty of Nursing, University of Toronto. Diane is a recipient of the Ontario Premier's Research Excellence Award. Her research has been recognized by the Canadian Association of University Schools of Nursing Award of Excellence, and by the Dorothy Pringle Research Excellence Award, Sigma Theta Tau International, Lambda Pi Chapter. Her recent research focuses on health care teams, the evaluation of methods for improving the quality of nursing practice, and the design and measurement of nursing-sensitive patient outcomes in both hospitals and in-home care settings. She is a co-investigator with the Nursing Health Services Research Unit, Faculty of Nursing, and the Patient Safety Research Cluster, University of Toronto. She has actively engaged in establishing joint initiatives with nursing faculties in the United States, Japan, and Finland.

### **Greg McArthur**

Greg McArthur is a Research Associate in the Knowledge Management Lab of Bell University Laboratories, Department of Computer Science, University of Toronto. His recent research focuses on developing software to help knowledge workers handle the very large amount of potentially useful information that is available to them, by quickly finding the pieces of information that are most relevant to a particular situation. He has helped develop one prototype system that enables business analysts to keep track of current events that affect the strategic goals of their company, and another prototype system that lets physicians get answers to clinical questions at the point of care, using handheld devices.