

## Competency level and attitude toward computers of nurses in La Union Philippines

ML Cisnero

*Institute of Community Health and Allied Medical Sciences, Don Mariano Marcos Memorial State University, Philippines*

Computer use in the Philippines has been rapidly growing but the use and integration in the field of nursing is not yet fully developed and required. The principal stage in using computer technology in nursing is the assessment of computer competency level and attitude.

A questionnaire was distributed among 172 nurses to determine their competency level in basic computer operations; multimedia and files management; and internet and social networking and communications using a validated and reliable tool that was developed; while Pretest on Attitude toward Computers in Health Care (PATCH) was utilized to determine their attitudes. ANOVA and Pearson *r* was used to determine the relationship and differences among groups and an enhancement program was also formulated based on the findings.

Results show that the respondents are highly competent in all domains of computer competencies but just a comfortable level of attitude. Age, educational attainment, rank, internet access and years using computers were factors that affect competency level whereas age, rank and years using computers are variables in attitude. Computers in Support of Nursing Education, Research and Operations (CISNERO) program was developed to further enhance the skills of nurses in using computers. It aims for cohort focus; IT-Nursing collaboration; standardized protocols; nursing-informatics introduction; education and staff development; research engagement and utilization; organizational structure.

La Union nurses are capable of using computers and ready for the use of computers in nursing management toward safe and quality care. Age, sex, educational attainment, rank, internet access and years using computers affects competency level and attitude toward computers. CISNERO Program can develop the use of computers in nursing in the Philippines.

## An evidence-based approach to recognising and responding to deteriorating emergency department patients

J Considine<sup>1</sup>, B Wunderlich<sup>2</sup>, E Lucas<sup>3</sup>

*<sup>1</sup>School of Nursing & Midwifery, Deakin University-Northern Health Clinical Partnership, <sup>2</sup>Northern Health, <sup>3</sup>Deakin University/Northern Health, Australia*

The aim of this study was evaluate the uptake of an evidence-based early warning system (EWS) for recognition of, and response to, clinical deterioration in emergency

department (ED) patients. The study was conducted in an urban district hospital in Melbourne, Australia using an exploratory descriptive design. The ED EWS consists of clinical instability criteria and an escalation protocol. Systematic sampling was used to identify every 10th patient in whom the ED EWS was activated from 1 May 2009 to 31 May 2011. Data collected included patient characteristics, ED system data and ED EWS activation characteristics. ED EWS activation occurred in 1.5% of ED patients: 204 patients were included in this pilot study. The median age was 65.1 years, 89.2% of patients were triage category 2 or 3 and 82.4% of patients were seen by medical staff before ED EWS activation. Hypotension (27.7%) and tachycardia (23.7%) were the most common reasons for ED EWS activation and median duration of clinical instability was 39 minutes. Nurses made 93.2% of the ED EWS activations and the median time between documenting physiological abnormalities and ED EWS activation was 5 minutes. The majority of patients (57.9%) required hospital admission: 4.4% of patients required intensive care unit admission. An ED EWS has resulted in at least two formal reports of clinical deterioration in ED patients per day indicating reasonable uptake by clinicians. A greater understanding of clinical deterioration in ED patients is warranted to inform an evidence-based approach to recognition of, and response to, clinical deterioration in ED patients.

## Using team-based learning to expanding nurse initiated x-rays in emergency care

J Considine<sup>1</sup>, R Martin<sup>2</sup>, J Currey<sup>3</sup>, S Williamson<sup>2</sup>

*<sup>1</sup>School of Nursing & Midwifery, Deakin University-Northern Health Clinical Partnership, <sup>2</sup>Northern Health, <sup>3</sup>Deakin University, Australia*

This study evaluated the clinical outcomes of an innovative education intervention to expand nurse initiated x-ray (NIXR) for Emergency Department (ED) patients with distal limb injuries. A prospective exploratory design was used. The education program was delivered using Team-Based Learning. Audit included 276 randomly selected NIXR requests from June to December 2011 in an urban district hospital in Melbourne, Australia. The study outcomes were accuracy and appropriateness of: i) documentation of patient assessment findings and ii) x-ray requests. Three cohorts of registered nurses (RNs) were compared: i) RNs with and without postgraduate qualifications irrespective of NIXR education, ii) RNs with and without postgraduate qualifications who undertook the NIXR education program, and iii) RNs who did and did not undertake the NIXR program irrespective of qualifications. There were 130 NIXRs by 28 RNs with postgraduate qualifications and 146 NIXRs by 12 RNs without postgraduate qualifications. Including all nurses, RNs without postgraduate qualifications had superior documentation of patient assessment findings and more appropriate x-ray requests (91.0% vs 74.1%,  $p = 0.001$ ). Limiting analysis to nurses who undertook the NIXR