

## **2007 Evidence-based Practice Contest Winners**

**Vicki Keough, PhD, RN, EBP Chairperson**

**(Committee Members: Vicki Bacidore, Darcy Egging, Robin Mazzuca, Michelle Knappe)**

The EBP Committee is pleased to announce the winners of the 2007 EBP Contest. This contest provides an opportunity for Illinois ENA members across the state to investigate an important topic related to emergency nursing and complete a review of the state of the science related to a chosen topic. This has been an exciting contest with topics that will inform and inspire ED nurses across the country. The winners of this year's contest provide an excellent example of how ED nurses enhance our profession by making a unique contribution to our existing literature. The EBP winners will give an oral presentation of their projects at the Illinois ENA Spring Symposium and will also display posters of their projects.

### **First Place Winner:**

**Tibor Bajor**

**University of Chicago Hospital**

**Project:        *Measurement of Overcrowding in the Emergency Department***

Emergency Department (ED) overcrowding has become a crisis. Recent reports cite that up to 90% of academic EDs report overcrowding. Increasing utilization and decreasing resources, as well as several key demographic variables promise no easy or impending solution to the problem. The ability to quantitatively and accurately model the work we do in the ED and its relation to overcrowding is very important and yet has not been adequately addressed. Five published and validated crowding scales were reviewed: The ED Crowding Scale; the ED Work Index; the National ED Overcrowding Study; the Real-Time Emergency Analysis of Demand Indicators Scores and the Work Score. After a review of the reliability, validity and applicability of the above scales, none were found to be adequate in measuring overcrowding. None of the above scales were superior to the ED census alone in their ability to capture crowding, predict ambulance diversion or leave without being seen rates. Nor do they assist in identifying solutions to the overcrowding issue.

Fundamental shortcomings of the crowding models are: lack of characterization of work load and intensity of treatment, particularly in terms of nursing resources; inadequate characterization of acuity; lack of capture of the cyclical nature of ED crowding, particularly in capturing the efficiency of an ED in absorbing "surges" of arriving patients; not accounting for the impact of fast tracks or mid-level providers; and not being amenable to use as tools for future research.

A shift to models of patient flow in the context of the Input-Throughput-Output model proposed by Asplin and colleagues (2003, 2006a,b) has the potential to better capture the complexity and inherent in the development of crowding and be more useful in developing and evaluating potential solutions. A tentative approach to modeling throughput utilizing concepts of patient flow and workload as a time series of equations is presented.

**2<sup>nd</sup> Place Winners:**

**Mary Otting; Bonnie Mobley; Marge Luczak; Brenda Burke; Peggy San Filippo; Cassie O'Brien; Maggie Coen-Murphy  
Children's Memorial Hospital**

**Project:                   *Pediatric Disaster Triage: Improving the Accuracy of Disaster Triage in Pediatric Patients Utilizing JumpSTART***

In the US the majority of training programs for mass casualty incidents (MCI) use a triage tool known as START (Simple Triage and Rapid Transport), however this tool does not address specific pediatric concerns. Oftentimes in a disaster setting pediatric victims present a physical and emotional toll on the first responders and ED nurses who are unprepared to triage pediatric victims. By providing these workers with an objective tool to use in triaging pediatric victims, better triage decisions will be made. A modification of the START tool that focuses on the key differences between adult and pediatric physiology known as JumpSTART was developed in 2007. While this information is valuable in disaster training, it is not widely utilized. The overall objective of this program was to first assess the current understanding of first responders regarding pediatric disaster and then to teach the algorithm of JumpSTART to first responders and ED nurses.

A JumpSTART class was offered to 145 first responders and ED nurses. A seven question multiple choice pre-test was given to the participants of the class assessing their knowledge level of everyday triage versus MCI triage. Fifty per cent of the class had never heard of the JumpSTART program. The average pre-test score for the seven questions was 75% and the average score after the class was 96%.

A four hour training session was provided to participants in the JumpSTART educational programs. This program included an hour and thirty minutes of lecture reviewing the basic principles of JumpSTART including physiologic changes and appropriate interventions for pediatric victims of disaster. The remaining two and one half hours students participated in timed clinical simulations where multiple pediatric victims were triaged based on pre-arranged scenarios. A full explanation of the JumpSTART algorithm along with several scenario based cases with open discussion followed.

**3<sup>rd</sup> Place Winner:**

**Marites Gonzaga  
Rush University Medical Center**

**Project:                   *Walk and Talk Campaign: Promoting Patient Safety and Improving Patient and Staff Satisfaction***

High rates of medical errors have been reported to occur in ICUs, operating rooms and emergency departments (EDs). JCAHO has identified lack of communication as a major source of these errors. The unit advisory committee and the patient satisfaction team of Rush University

Medical Center (RUMC) explored opportunities to improve the process of hand-off communication during the end of shift report in an effort to improve patient safety and staff satisfaction. As a result of this meeting, the ED began a project to initiate bedside nursing reports using an organized format known as the “Walk and Talk Campaign”.

The end of shift report is an excellent example of a patient hand-off unique to the nursing profession because it involves transfer of relevant patient information from one nurse to another. It is critical that structured forms of communication should be considered. A review of the literature revealed impressive findings to improve communication using the SBAR (Situation-Background-Assessment-Recommendation/Request) tool. SBAR is an easy to remember tool that provides a structured orderly approach to improve effective communication of accurate and relevant information (Manning, 2006). Communication at the time of patient hand-off should result in a clear understanding by each nurse about who is responsible for which aspects of patient care.

The Walk and Talk campaign at RUMC’s ED consisted of end of shift reports by ED nurses utilizing the SBAR communication technique via bedside rounds. Nurses were educated regarding the use of SBAR communication by staff education programs and flyers distributed to the ED nurses. Each nurse was given 15 minutes for the SBAR bedside communication to occur. The benefits and barriers/challenges will be evaluated by a post-implementation survey given to nurses, discussion during staff meeting and a review of patient satisfaction surveys regarding (1) patient information about delays, (2) nurses courtesy and (3) doctors concern to keep you informed about your treatment. Evaluation of this program is in progress.