

ABSTRACT:

STREAM: **EVIDENCE-BASED PRACTICE – MEASURING THE VALUE**

SPEAKERS: Ruth E. Brenner, RN, MEd, MHCA, Education and Resource Coordinator ,
Laurie A. Sams, RN, MN, Director, Canadian Operations
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LEAN and Six-sigma with workload data

Organizational complexity today is widespread in health care organizations. Examples of organizational complexity are everywhere from referral processes to specialization of services. Potential for error increases significantly the more complex the system. Medication administration is a multi dimensional process and by its very nature is susceptible to error. This presentation focused on bar coding for medication administration and simulation modeling using LEAN six sigma methodology and GRASP workload measurement data to predict system behaviour.

Incorporating Six-sigma philosophy into LEAN modeling using workload data is a transformative approach to modeling that allows one to focus not only on waste reduction but also on process quality and accuracy. GRASP data validated process times for all types of medication administration on all of the nursing units at the facility to build the current state model. Smart groups, inherent in GRASP methodology were able to predict differences in times with the new bar-coding technology.

Thus modeling was able to measure the impact of change on medication administration time as well as predict a percentage of error reduction that should be expected with the change. Given the average medication error costs approximately \$2,000 per instance to the facility or system, the return on investment is clearly evident. If we consider one medication error occurs every day in an organization, a savings of at least \$365,000 can be realized if only 50% of the errors were eliminated with bar coding.

This approach demonstrated that using bar-coding technology, medication errors would be reduced while at the same time not increasing nursing time and cost.

BIO:

Ruth E. Brenner, RN, MEd, MHCA

Education and Resource Coordinator , GRASP Systems ULC

For 38 years, Ruth has dedicated herself to creating a healthy environment for patients and staff. Ruth held the following positions; Staff Nurse, Nurse Manager, Director of Nursing, Assistant Hospital Director (10 departments), and Director of Quality and Utilization Management. Ruth quickly realized the importance and benefits of workload measurement and management and the tie in to quality outcomes. Though paper based at the time, Ruth understood and envisioned the speed and power of automation.

In 2006 Ruth retired but wanting to be challenged she asked to work part-time on special projects for GRASP. As the Education and Resource Coordinator she is having lots of fun in this challenge.

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Laurie A. Sams, RN, MN

Director, Canadian Operations, GRASP Systems ULC

With her 30+ years of experience in various specialties of Nursing in Canada and the United States, Laurie understands the challenges of today's healthcare environment. Laurie held the positions of Staff Nurse, Nurse Manager, Director of Nursing, Project Manager and Consultant. Having worked with administrators, finance and clinical staff departments, Laurie identified the importance of using workload measurement to assist with day to day work and future planning. At GRASP Systems, she led the development of the suite of MISTroClef products for the Canadian market.

Since 2008, Laurie oversees all Canadian operations and participates in new business development for GRASP Systems Canada.

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