

## **Appendix B: NCAL Medical Center Reports**



### **Sacramento Simulation Center**

#### **Background**

Sacramento Medical Center (SAC) has had an active simulation collaborative practice for several years, conducting simulation across many disciplines. While Critical Event Team Training (CETT) began in the perinatal area, it has spread throughout the hospital. When the perinatal services moved to the new Roseville medical center, some former NICU space was secured for a Simulation Center at the medical center.

#### **Objective/Goal**

To integrate Simulation Based Education (SBE) into as many educational offerings as possible

#### **Approach**

Several times a year, a full day class titled "Emergency Response Training" is offered using the KP Critical Events Team Training concepts, Crisis Resource Management skills (Dr. David Gaba, Stanford University), Advance Cardiac Life Support skills/knowledge (American Heart Association) and Emergency Team Training techniques (Dr. Michael DeVita, University of Pittsburgh/WISER-First 5 Minutes program published by Laerdal Medical). The goal of the class is to create a safe learning environment where staff can bridge the performance gap between what they "KNOW" and what they "DO" in an actual emergency. What makes this class so different is that 90% of the time is spent on doing emergency simulation and debriefing, or instructor guided self-analysis. The Sacramento simulation team believes this is the most effective way to learn by "hands-on" experiences and practice. The program has been very successful and the staff enjoyed it.

Patient Care Services leadership identified during off-shifts inpatient units did not have an adequate number of staff competent to use the ECG machines located on each unit. This competency gap could/did lead to a delay in patient care and therefore placing our members at risk. As a result of this finding, the ECG Department and Education department invited management teams and core staff to several trainings in the Simulation Lab to close this knowledge gap. One of the staff who took the training was able to teach the same content during one of our many Med/Surg classes. In addition, she was provided with the supplies and will now be teaching it during our shift huddles over the next few weeks.

On May 4th, 25 - 30 Emergency Room (ED) Physicians attend a 2 -3 hour skills session in the Simulation Center with the following skills stations.

- Simulation Scenario with a 6 month old (Sim Baby, Laerdal Medical) who arrive in the Emergency Department (ED) complaining of shortness of breath. The physician must recognize/declare the emergency; communicate effectively to the team and save the child.

- Using Trauma Man from SimuLab, the ED physicians were able to review and demonstrate different techniques for emergency airway access (cricothyrotomy). This technique falls into the low frequency/high risk category of skill training.
- Using the Ultrasound guided central line access with the Blue Phantom product. This is part of our Sepsis, Early Goal Directed Therapy, treatment and prevention program.
- Intubation and difficult airway access on an infant using SimNewB from Laerdal Medical
- EZ-IO Power Driver practice for adult and pediatric. The IO or intraosseous access technique has been used for many year on pediatric patients to provide a safe, reliable and rapid means of providing vital fluids and medications during an emergency situation. In the past few years it has become accepted as an alternative to intravenous access in adults a well. Using the EZ-IO makes insertion quick, safe and easy, but requires practice to assure proper placement.
- As a result of this training, the Emergency Department Chiefs for Sacramento and Roseville Medical Center (Dr. David Berman, DO and Dr. John Wiesenfarth) have made the statement; they would like to see all ED physicians receive the training by the end of the year. Next class is scheduled for September 10<sup>th</sup> 2010 and we look forward to a great repeat performance.

A few times a year, the PI Center is converted into a mini Operating Room (OR) and recovery room (PACU/ASU) where, with the help of the Perioperative Educator and Nurse Anesthetists, the staff practice team work, communication, and emergency response skill in our simulation theater. This training has allowed the team to practice their response to a cardiac arrest during surgery, allergic reactions, and upper airway bleeding. The great thing about simulation is the ability to schedule a crisis and work through system errors. This is key to the prevention of patient harm. Our next trainings will be for malignant hyperthermia, a high risk/low frequency event. Additionally, the PeriOp educator, ED Educators, Nurse Anesthetists and leadership will be working on work flows for emergent C-sections. The plan is to offer several sessions in the simulation center and then take the simulators out to the units to do a systems/workflow analysis.

Sacramento's work place safety team uses the simulation center on a regular basis to educate staff on proper body mechanics, safe patient handling techniques and how to use the equipment provided to them on each unit. In 2010, over 50 people completed training boosting SimMan up in bed and transferring him from gurney to gurney use appropriate equipment. They also use the PI center as part of the root cause analysis process when staff gets injured on the job.

### **Status**

Leadership, Human Resources, and Education support the belief if after given several chances, an individual cannot successfully perform required skills in the PI lab, then they would not be allowed to do so with a patient. This was ground breaking for the SAC and simulation in general. Sacramento's strong leadership team made this dedication to quality patient care and endorsement for the PI Center

In March 2010, in order to keep simulation viable, a one day introductory class on how to become a Simulation Instructor was offered. Participants were introduced to the simulation family and how to use simulation as a teaching tool. Those attendees are continuing an apprentice path to becoming a recognized Simulation Instructor in the KP system. As Simulation Instructors, they will have access to the PI Center and any simulation equipment needed for their field of expertise. The SAC Simulation team believes a quality education event deserves a quality instructor.

In June and July of 2010, the PI center was taken over by the Sacramento ED Clinical Educators for RN annual skills days. Though the educators are not trained Simulation Instructors, they were able to use the simulation equipment and the PI center in a low fidelity manner to accomplish their goals using simulation.

**Measurement**

During every class staff completes a pre-class survey using the Lickert scale (1-5) to assess confidence. After the first scenario, another survey is completed to assess competence and confidence. From the surveys, 90% of the time the learner who believed they were “good” at codes, does not continue this belief. At the end of the day, staff take a post-class survey. Results constantly show a 1 – 2 point increase in confidence. Staff performance by the end of the day shows a marked improvement in competency as well. During all of the simulation classes, the importance of calling a Rapid Response Team first is stressed to prevent the patient from deteriorating to the point where a code is needed. As of June 2010, Sacramento's Med/Surg/Telemetry units have gone 3 months without a single Code Blue. This demonstrates improvement in patient care outcomes through simulations efforts.

**Future**

Many simulation trainings will continue to be offered at the Sacramento's PI Center. Trainings for new simulation instructors have been planned. Currently, on a monthly basis the ED physicians use the center as part of their event planning and Simulation Instructor Development program.