iSIM, Improving Simulation Instructional Methods

Course to be Held at WISER November 29-30, December 1, 2010

The Peter M. Winter Institute for Simulation, Education, and Research (WISER) at the University of Pittsburgh and the Gordon Center for Research in Medical Education (GCRME) at the University of Miami, in a collaborative effort have developed and implemented the internationally renowned iSIM, Improving Simulation Instructional Methods class that will be held at WISER on November 29-30 and December 1, 2010 which is right before WISER’s 4th Annual Nursing Symposium. This course is designed to provide participants with practical instructional skills that will enable them to become more proficient at using simulation in healthcare education. The program is open to all medical professionals who are interested in improving their simulation-based instructional skills and is targeted at those with a background in healthcare education. This hands-on course encourages participants to maximize their skills at simulation-based instruction. For more information on this course, please visit the iSIM website at http://isimcourse.com/.
Study Validates Simulation-Based Teaching

Amy Seybert, PharmD, Associate Director of Pharmacy Programs at WISER, recently conducted a study in an adult coronary critical care unit (CCU) and medical intensive care unit (MICU) at UPMC Presbyterian to compare the medication and administration error rates before and after each type of training method.

A dozen nurses in each unit were observed administering and documenting each patient’s medications. After the initial observation, all nurses from both units were invited to take part in an educational session that was either simulation or lecture based. Both sessions equally focused on the errors that were identified during the initial observation period.

The nurses who were assigned to the simulation-based session received training with the Laerdal SimMan at WISER to correct errors and practice proper medication administration techniques. When administration mistakes were made, the simulator responded appropriately with negative physiological changes that gave the nurse a more real life experience.

The other group received traditional lecture style education, reviewed medication administration techniques, and reviewed what can happen during a typical administration error occurrence.

To assess retention of knowledge, both groups of participants were given multiple-choice quizzes along with a five-question subjective evaluation, before and after the educational sessions. The nurses also were observed administering medication twice more: one to four weeks after the educational session and again eight to 12 weeks after the session.

After the sessions and first observation period, the study found that the medication administration error rate had significantly decreased to 4 percent for the CCU nurses who received simulation-based training. The opposite was true for the nurses that received lecture style training. Their error rate increased to 22.7 percent. After the second and final post-education and observation period, the error rate for the CCU nurses slightly increased to 6.2 percent while the rate for the MICU nurses increased to 36.7 percent.

Study co-authors include Daniel G. Ford, PharmD, NorthBay Medical Center, Fairfield, Calif.; Pamela L. Smithburger, PharmD and Sandra L. Kane-Gill, PharmD, MSc, both of UPMC and Pitt School of Pharmacy; Lawrence R. Kobulinsky, WISER; and Joseph T. Samosky, PhD, Simulation and Medical Technology Research and Development Center, School of Medicine, and Swanson School of Engineering, all at Pitt.

Wisconsin Institute for Simulation and Education at UPMC (WISER) has announced the 2010 WISER Continuing Education Events. The following are the courses scheduled for the month of November:

- ANESTHESIA DIFFICULT AIRWAY MANAGEMENT COURSE
  - November 13, 2010
- FIBEROPTIC BRONCOSCOPY COURSE
  - November 14, 2010
- iSim COURSE
  - November 29-30
  - December 1, 2010
- 4TH ANNUAL NURSING SYMPOSIUM
  - December 2-3, 2010

WISER is excited to announce that the 4th Annual WISER Nursing Symposium will be held on December 2-3, 2010. This year’s symposium will take place at the Pittsburgh Airport Marriott, which is just minutes from the airport. This is a must attend meeting dedicated to simulation for nursing educators and acting professional nurses.

Visit www.wiser.pitt.edu/nursingsymposium for more information.
WISER assists with opening new sim center in Children’s ED

In the newly built Children’s Hospital of Pittsburgh, WISER and the Emergency Medicine Department of Children’s, established a pediatric emergency simulation training facility located directly in the heart of the emergency room. This center provides immediate training for emergency department residents, medical students, nurses, and additional staff. Its primary focus is emergent care training of staff on high risk patients, procedures and trauma. Procedural skills and training will also be part of the center’s mission. The location was established to provide in-situ opportunities for medical staff within the emergency department.

John O’Donnell Receives Dissertation of the Year Award

The Graduate School of Public Health Annual Alumni Dinner was held on May 1, 2010 at the University Club with more than 200 alumni and students in attendance. Dr. John O’Donnell, WISER Associate Director for Nursing Programs, was honored with the “Best Dissertation of the Year in the Department of Epidemiology Award, 2009-2010.” O’Donnell defended his dissertation on September 14, 2009 and received his Doctorate of Public Health on December 19, 2009. His dissertation titled “Development of an Optimal Patient Transfer Task Set and Simulation-Based Intervention to Reduce Musculoskeletal Injury in Healthcare Workers” (University of Pittsburgh IRB # 0511041) was funded by Department of Defense (Award # DAMD 17-03-2-0017, $471,000.00). Selecting the multiple publication dissertation option, O’Donnell has published or is in the process of publishing four papers related to the project including: O’Donnell, JM, Beach, M, & Hoffman, L(2005). Human Simulation Training in the ICU: Applicability, Value, and Disadvantages. Critical Care Alert. 13 (6); 41-48 and O’Donnell JM, Goode JS, Henker RA, Kelsey S, Pelle P, Bircher N, Bradle JA, Engberg R, Close JM, Tyrrell-Sutton K (2010) An Ergonomic Protocol For Patient Transfer That Can Be Successfully Taught Using Simulation Methods. Clinical Simulation in Nursing (In press).

O’Donnell was formally “hooded” at the Graduate School of Public Health Graduation Ceremony held at the Carnegie Museum in May, 2010.

ASK OPS

How do I remove ink from a manikin?

- **BENZOYL PEROXIDE**
  
  Dab a generous portion onto the ink; allow to set for 24 hours and remove with a wet cloth

- **MR. CLEAN MAGIC ERASER**
  
  Follow directions on the box for removing spots; this should help remove the ink
Greetings and welcome to the first WISER newsletter. We want this newsletter to serve as a communication tool to allow people who are interested to know all of the exciting things that are occurring in WISER. If you have comments, suggestions, or potential inclusions for the newsletter, please let us know!

The last academic year has been quite exciting for us. We have once again expanded our physical plant at the WISER main campus now occupying an additional 3000 ft. of administrative and operational space as well as the creation of our multimedia laboratory. We have assisted in the opening of the satellite center at Children’s Hospital as well as continued to add to our catalog of existing courses and increase the amount of healthcare providers who benefit from simulation. Through this expansion we have added self study simulation-based Advanced Cardiac Life Support (ACLS) and Basic Life Support (BLS) programs to our library of offerings to assist healthcare providers from across UPMC to become certified in these important programs.

The development of our Improving Simulation Instructional Methods (iSIM) program has been completed and the course has been running successfully here in Pittsburgh, in Miami as well as internationally in Singapore and in Korea. This course has proven to be an exciting project working closely with our partners from the Gordon Center for Research in Medical Education at the University of Miami.

Until the next issue of this newsletter, I wish you well and happy simulating!

Best regards,

Paul E. Phrampus
Director