P5a:  Paper - Practice
Interprofessional Central Line Course for Increased Patient Safety

Saturday, March 13, 2010 11:30a.m. to 12:00p.m. 505 Hamilton Bldg

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The purpose of the Central Line Course is to prevent catheter-related bloodstream infections and untoward events by educating residents and advanced practice clinicians (APCs) on the five components of care in the Institute for Healthcare Improvement (IHI) Central Line Bundle.

Central line-associated infections and untoward events are preventable events that harm patients and generate significant costs. Key contributing factors to these adverse events include insufficient training, lack of provider collaboration and inconsistent application of evidence-based patient safety protocols. The IHI Central Line Bundle encourages bedside collaboration before, during and after the procedure to ensure patient safety.

The course consists of four hours of didactic information followed by four hours of simulation, ultrasound guided vessel identification and collaborative interactions. Residents and APCs perform subclavian, jugular and femoral central line insertions insuring the time out verification process is completed; sterile technique is utilized and maintained. Each participant receives a checklist based competency evaluation. Experienced and graduate nurses are involved in the simulation to support bedside collaboration.

As of 2008 a total of 233 participants in the Network have gone through formal instructional and/or simulation training. This course and changes in policies and practices has significantly reduced the central line associated infection trend rate since April 2005.

This study produced evidence suggesting that interprofessional simulation training contributes to better resident adherence with IHI Central Line Bundle and lower complication and infection rates than if the course did not exist. Performance support mechanisms introduced in the course and present in the clinical setting, such as a central line checklist and peer support, reinforce course learnings and enable skill transfer to the clinical environment.