Oral Defense Announcement

University of Missouri – St. Louis Graduate School

An oral examination in defense of the dissertation for the degree Doctor of Nursing Practice with an emphasis in Acute Care Pediatric Nurse Practitioner

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Implementation of CHG-Dressings and the Effect on Bloodstream Infections in ECMO Patients at a Pediatric Hospital

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Abstract

Extracorporeal membrane oxygenation (ECMO) is an advanced lifesaving therapy used for patients with significant cardiorespiratory failure not responding to conventional therapies. The most common and life-threatening complications associated with ECMO are blood stream infections (BSIs). In addition to increased mortality, BSI's increase patient length of stay and cost. Chlorhexidine Gluconate (CHG) is known to be a significant factor in BSI reduction. The purpose of this quality improvement project is to assess the utilization of CHG-impregnated dressings on the incidence of BSI rates in pediatric ECMO patients. The setting was a 40-bed pediatric intensive care unit (PICU) and a 30-bed cardiac intensive care unit (CICU) at an urban hospital within a Midwest metropolitan area of the United States. A purposeful convenience sample of all pediatric ECMO patients was performed within the two ICUs for 90 days post project implementation. The data was reviewed and collected from the pre- and post-intervention timeframe obtained via retrospective medical record. Primary outcome measures evaluated included CHG-dressing utilization by bedside staff and BSI rates. There is potential for CHG-impregnated dressings to provide a clinically significant reduction in BSIs in pediatric ECMO patients, which improves patient outcomes, decreases length of stay and cost.

Defense of Dissertation Committee

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