

# 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 Pediatric Nurse Practitioner

Emily E. Heth

B. S. Nursing. Goldfarb School of Nursing at Barnes-Jewish College, St. Louis, MO, 2018  
B. S. Criminology, Missouri State University, Springfield, MO 65897, 2015

### **Wiping Out CLABSIs: Cleaning High Touch Surfaces in the PICU**

Date: July 11, 2024

Time: 10:00 a.m. to 10:30 a.m.

Place: Seton Hall

#### **Abstract**

Central line bloodstream infections (CLABSIs) are a significant, preventable healthcare-related complication of hospital admission and medical management of critically ill and medically complex patients. CLABSIs result in significant adverse outcomes such as increased morbidity and mortality, prolonged length of stay (LOS) in the intensive care unit (ICU) and in the hospital, increased cost of treatment, and increased rates of readmission. Direct and indirect contact within the patient's hospital environment are potential means of transmission for microorganisms, increasing the inherent risk of acquiring a CLABSI. The purpose of this quality improvement project will be to evaluate the effect of implementing a specific cleaning protocol of high-touch surfaces on CLABSIs reduction rates in the PICU setting. This QI project setting was in a 40-bed pediatric ICU at a Level 1 community pediatric hospital in the Midwest. All patients that met criteria were sampled during the 12-week study period. Data was obtained via retrospective and prospective chart review of the electronic medical record. Number of CLABSIs, ICU length of stay, and high touch surface cleaning compliance data were analyzed. While no statistical significance was identified, potential clinical significance was noted. Recommendations include application of implementation science to help increase compliance as well as repeated studies with a larger sample size, longer study cycles, and multiple ICUs could produce statistically significant results. Cleaning high touch surfaces has the potential to reduce CLABSIs caused by contamination of the patient environmental, which could improve adverse outcomes and reduce financial costs.

#### **Defense of Dissertation Committee**

Committee Chairperson, Dr. Sarah Jackson, DNP, APRN, FNP-C

Dr. Candace-Rae Davis, DNP, APRN, ACCNS-P, CPNP-PC/AC

Dr. Rachel Allen, DNP