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## A Project Proposal: The Effects of Standard Protocols during CPR on Hospital-Acquired Infections of Post-Open-Heart Surgery Patients in the CVICU

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Monahan, Jessica, "A Project Proposal: The Effects of Standard Protocols during CPR on Hospital-Acquired Infections of Post-Open-Heart Surgery Patients in the CVICU" (2022). *Symposium of Student Scholars*. 364.

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## **Abstract**

*A Project Proposal: The Effects of Standard Protocols during CPR on Hospital-Acquired*

*Infections of Post-Open-Heart Surgery Patients in the CVICU*

**Background:** Hospital-acquired infections (HAIs) are one of the most common complications post-cardiac surgeries and are associated with longer hospitalizations, elevated use of healthcare resources, and increased morbidity and mortality. The effects of HAIs after cardio-pulmonary resuscitation (CPR) in recent post-open-heart surgery patients remains largely unexplored.

Therefore, the purpose of this project was to determine, in the CVICU does implementing standard protocols during CPR on recent post-open-heart surgery patients reduce HAIs?

**Literature Review:** HAIs during CPR can be acquired through airborne, contact, droplet, or hematogenous transmission. Therefore, adherence to standard protocols of aseptic technique is one of the most important infection prevention competencies for protecting patients from HAIs. Patients in the CVICU are considered at higher risk of colonization and infection with multi-drug resistant (MDR) pathogens because of healthcare exposure, mechanical circulatory support (MCS), mechanical ventilation, central venous catheters (CVCs), and frequent use of antibiotics.

**Methods:** Quality improvement measures for reducing HAIs in post-open-heart surgery patients include: pre-operative screening for nasal carriage of staphylococcus aureus and subsequent carriers, strict hand hygiene with an alcohol-based hand sanitizer or soap and water before and after any patient contact, gown and glove contact precautions when changing a patient dressing, routine daily bathing with chlorhexidine, and proper disinfection and cleaning of environment and equipment.

**Evaluation:** To indicate if this EBP project was successful, surveys and metrics would be utilized to measure how many infections were on the CVICU unit after standard protocols were implemented.

*Keywords: Post-open-heart surgery, hospital-acquired infections, CPR, Cardiovascular intensive care unit*