

**Surgical Site Infection Reduction:
Through Povidone-Iodine Nasal Decolonization Prior to Surgery**

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Background Information: Surgical site infections (SSIs) are the most common and expensive healthcare-acquired infection in the United States, occurring in 2-5% of patients who undergo surgery. Patients who experience deep SSI's report lower quality of life and pain. SSI elimination reduction is a current national patient safety goal. Thus, the objective of this nurse-driven process improvement project was to implement a cost-effective and practical decolonization protocol to improve outcomes for high-risk veteran populations undergoing surgery, as well as avoid undue suffering, and hundreds of thousands of dollars in medical expenses.

Prior to the implementation of this project, a decolonization protocol was used for cardiac and orthopedic preoperative patients only. The process involved screening for methicillin-resistant Staphylococcus aureus (MRSA) colonization via nasal swab preoperatively. Patients who tested positive were prescribed mupirocin ointment to nares BID and chlorhexidine showers for five (5) days prior to surgery. Adherence to the protocol was problematic for both providers and patients. Despite interventions to reduce SSI, stagnant MRSA SSI rates at VA Portland Healthcare System prompted a new initiative to decrease infections.

Objectives of Project: The Objective of the project was to eliminate or reduce surgical site infections at VA Portland Health Care System, Portland, OR.

Process of Implementation: The team learned of new evidence-based best practice recommendations from the Houston VA Medical Center who reduced SSIs by 50 % with screening for MRSA in the pre-operative clinic to ensure proper antibiotic for surgery, followed by treating each preoperative patient with chlorhexidine washcloths, oral chlorhexidine rinse, and intranasal povidone-iodine.

Starting May 15, 2017, all surgical patients at our VA facility now receive intranasal Povidone-iodine treatment before surgery

Statement of Successful Practice: For the past three years the medical center has averaged 11 SSIs per year, and for the first fiscal year of implementation 5 SSIs and 4 SSI's for the second fiscal year were reported.. Signifying a 42% reduction in MRSA SSI over the last 7 years.

Implications for Advancing the Practice of Perianesthesia Nursing: A Nurse driven process significantly decreased incidence of MRSA SSI's at the VA Portland Health Care System