Best Practice for Post-Operative Surgical Site Infection Prevention

Authors : Scott Cavinder

Abstract : Surgical site infections (SSI) are a known complication to any surgical procedure and are one of the most common nosocomial infections. Globally it is estimated 300 million surgical procedures take place annually, with an incidence of SSI's estimated to be 11 of 100 surgical patients developing an infection within 30 days after surgery. The specific purpose of the project is to address the PICOT (Problem, Intervention, Comparison, Outcome, Time) question: In patients who have undergone cardiothoracic or vascular surgery (P), does implementation of a post-operative care bundle based on current EBP (I) as compared to current clinical agency practice standards (C) result in a decrease of SSI (O) over a 12-week period (T)? Synthesis of Supporting Evidence: A literature search of five databases, including citation chasing, was performed, which yielded fourteen pieces of evidence ranging from high to good quality. Four common themes were identified for the prevention of SSI's including use and removal of surgical dressings; use of topical antibiotics and antiseptics; implementation of evidence-based care bundles, and implementation of surveillance through auditing and feedback. The Iowa Model was selected as the framework to help guide this project as it is a multiphase change process which encourages clinicians to recognize opportunities for improvement in healthcare practice. Practice/Implementation: The process for this project will include recruiting postsurgical participants who have undergone cardiovascular or thoracic surgery prior to discharge at a Northwest Indiana Hospital. The patients will receive education, verbal instruction, and return demonstration. The patients will be followed for 12 weeks, and wounds assessed utilizing the National Healthcare Safety Network//Centers for Disease Control (NHSN/CDC) assessment tool and compared to the SSI rate of 2021. Key stakeholders will include two cardiovascular surgeons, four physician assistants, two advance practice nurses, medical assistant and patients. Method of Evaluation: Chi Square analysis will be utilized to establish statistical significance and similarities between the two groups. Main Results/Outcomes: The proposed outcome is the prevention of SSIs in the post-op cardiothoracic and vascular patient. Implication/Recommendation(s): Implementation of standardized post operative care bundles in the prevention of SSI in cardiovascular and thoracic surgical patients.

Keywords : cardiovascular, evidence based practice, infection, post-operative, prevention, thoracic, surgery

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