

Standardized preoperative, surgical, antibiotic practices improve orthopedic, colorectal, abdominal surgery outcomes

June 4 2024



Credit: CC0 Public Domain

Mortality, length of stay, readmissions, and surgical site infections (SSI) all declined after a six-state hospital system implemented a comprehensive surgical site infection (SSI) prevention bundle, according to a report presented today at the [2024 APIC Annual Conference](#).

The oral abstract, "[Effect of a Standardized Preoperative Prophylactic Antimicrobial Guideline on Improved Postoperative Surgical Site Infection \(SSI\) Outcomes](#)," (ISR 11) is being presented at 2:30 pm CT, June 4, at the APIC Annual Conference in San Antonio, Texas.

Banner Health, which operates facilities in Arizona, California, Colorado, Nebraska, Nevada, and Wyoming, reported on the impact of a surgical antimicrobial prophylaxis (SAP) bundle on more than 57,000 surgical cases from January 2019 to December 2023. Four publicly reportable procedures were included in the analysis: hip and knee arthroplasty, colorectal surgery, and abdominal hysterectomy.

The [infection prevention](#) (IP) team at Banner Health began investigating an all-encompassing clinical practice for SSI prevention in 2019 with the goal of reducing their Standardized Infection Ratios (SIRs). It was determined that focusing on one bundle component, specifically SAP across all 30 of their facilities, could have the greatest impact on SSI reduction. As part of the intervention, they monitored adherence to the appropriate selection of preoperative antibiotics, dose, administration times, and redose. Starting from a baseline of 67.1% in 2019, adherence to this process measure increased to 82.2% by 2023.

During the same period, [compliance](#) with the SAP bundle produced the beneficial effect of shortening length of stay (LOS) by 4 days, decreasing overall [mortality rates](#) by 4.4%, and lowering the average 30-day readmission rates by 3.9%. Similarly, compliance with the SAP

bundle in hip arthroplasty procedures evidenced a statistically significant
(p

Citation: Standardized preoperative, surgical, antibiotic practices improve orthopedic, colorectal, abdominal surgery outcomes (2024, June 4) retrieved 21 June 2024 from <https://medicalxpress.com/news/2024-06-standardized-preoperative-surgical-antibiotic-orthopedic.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.