

Presentation Type:

Oral Presentation

Reduction in Abdominal Hysterectomy Surgical Site Infection Rates After the Addition of Anaerobic Antimicrobial Prophylaxis

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Background: Antimicrobial prophylaxis is one of the strongest surgical site infection (SSI) prevention measures. Current guidelines recommend the use of cefazolin as antimicrobial prophylaxis for abdominal hysterectomy procedures. However, there is growing evidence that anaerobes play a role in abdominal hysterectomy SSIs. We assessed the impact of adding anaerobic coverage on abdominal hysterectomy SSI rates in our institution. **Methods:** The University of Iowa Hospitals & Clinics is an 811-bed academic medical center that serves as a referral center for Iowa and neighboring states. Each year, ~33,000 major surgical operations are performed here, and on average, 600 are abdominal hysterectomies. Historically, patients have received cefazolin only, but beginning November 2017, patients undergoing abdominal hysterectomy received cefazolin + metronidazole for antimicrobial prophylaxis. Order sets within the electronic medical record were modified, and education was provided to surgeons, anesthesiologists, and other ordering providers. Procedures and subsequent SSIs were monitored and reported using National Healthcare Safety Network (NHSN) definitions. Infection rates are calculated using all depths (superficial, deep and organ space) and by deep and organ space only, as this is how they are publicly reported. We used numerator (SSIs) and denominator (number of abdominal hysterectomy procedures) data from the NHSN from January 2015 through September 2019. We performed an interrupted time-series analysis to determine how the addition of metronidazole was associated with abdominal hysterectomy SSIs (all depths, and deep and organ

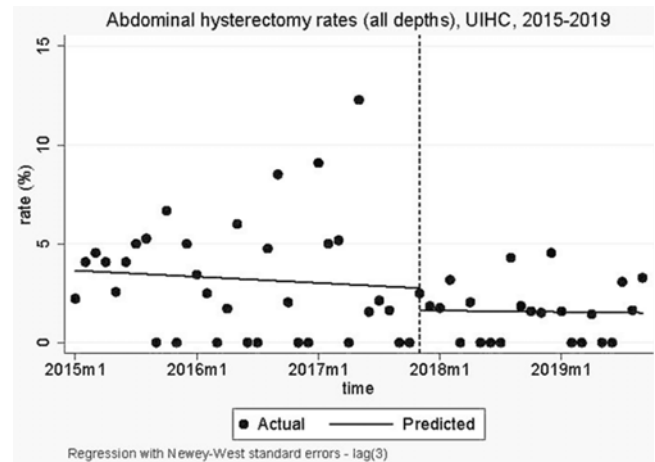


Fig. 2.

space). **Results:** From January 2015 through October 2017, the hysterectomy SSI rates were 3.2% (all depths) and 1.5% (deep and organ space). After the adjustment was made to antimicrobial prophylaxis in November 2017, the rates decreased to 1.6% (all depths) and 0.6% (deep and organ space). Of the SSIs with pathogens identified, the proportion of anaerobes decreased from 59% to 25% among all depths and from 82% to 50% among deep and organ-space SSIs. The rate of SSI decline after the intervention was statistically significant ($P = .01$) for deep and organ-space infections but not for all depths ($P = .73$). **Conclusions:** The addition of anaerobic coverage with metronidazole was associated with a decrease in deep and organ-space abdominal hysterectomy SSI rates at our institution. Hospitals should assess the microbiology of abdominal hysterectomy SSIs and should consider adding metronidazole to their antimicrobial prophylaxis.

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Reductions in Positive *Clostridioides difficile* Events Reportable to NHSN With Adoption of Reflex EIA Testing in 13 Atlanta Hospitals

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Background: US hospitals are required to report *C. difficile* infections (CDIs) to the NHSN as a performance measure tied to payment penalties for poor scores. Currently, only the charted CDI test results performed last in reflex testing scenarios are reported to the NHSN (CDI events). We describe the reduction in NHSN CDI events from the addition of a reflex toxin enzyme immunoassay

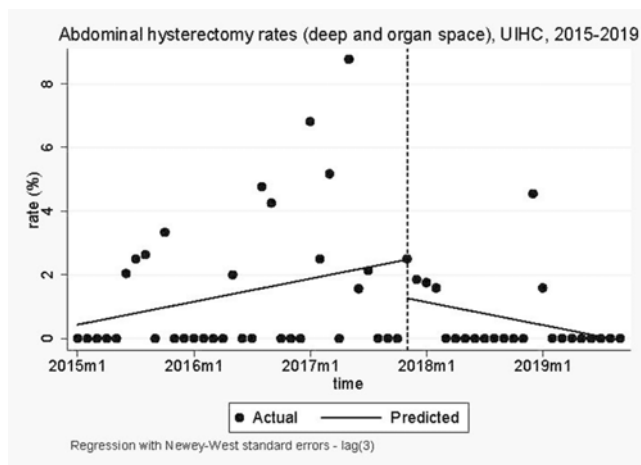


Fig. 1.