practiced were family practice and nurse practitioners. Antibiotic prescribing rates of higher-volume prescribers were highest among dentists (1,118 prescriptions per 1,000 beneficiaries).

Presentation Type:
Poster Presentation - Poster Presentation
Subject Category: Antibiotic Stewardship
Evaluation of a Sepsis Alert System at a Veterans Affairs Medical Center

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Background: Automated sepsis alerts have become a widely implemented screening tool aimed at early detection of clinically unstable patients. Prior research has shown mixed results depending on the type of screening tools used and the patient population studied. This study aimed to evaluate the predictive value of an alert system created for identifying patients with sepsis to determine utility in clinical practice prior to implementation. Additionally, clinical management of those with and without sepsis was compared to measure potential added benefit of this system in clinical decision making. **Methods:** A TheraDoc® software sepsis alert was generated for non-ICU patients meeting >2 SIRS criteria within a 24-hour time period (temperature >38°C or 90, respiratory rate >20 or partial pressure CO2 12,000 or 10% bands/immature cells) during March 2023. Alerts were excluded if they were duplicates (using identical criteria or a second alert within 24 hours), triggered by labs collected >48 hours prior, or death or discharge occurred before the time of alert. The primary outcome was positive predictive value (PPV) of sepsis identification, confirmed by ICD-10 codes and diagnostic studies (cultures, imaging). Secondary outcomes included clinical management (antibiotic utilization [AU] and choice, infectious disease [ID] consultations and culture collection). Antibiotics were categorized as broad-spectrum using National Healthcare Safety Network (NSHN) criteria. Secondary outcomes were compared between sepsis and SIRS without infection groups (SIRS) by chi-square analysis. **Results:** After applying exclusion criteria, 116 of 166 alerts were analyzed; 55 of 116 alerts had confirmed sepsis (PPV 47.4%). Patients with sepsis were more likely to have an ID consult (16% [9/55] vs 7% [4/61]) and cultures collected (70.9% [39/55] vs 39.3% [24/61]) compared to SIRS patients, however these differences were not statistically significant. AU was higher with confirmed infections compared to SIRS patients (94.5% [52/55] vs 32.8% [20/61], p < 0 .05) along with use of broad-spectrum antibiotics (73% [38/52] vs 40% [8/20] p < 0 .05). **Conclusions:** While automated alerts may enable early identification of sepsis, use of SIRS criteria alone has poor specificity, which was borne out by the low PPV in this study. Our study found that management of sepsis patients (as measured by AU and culture ordering) was better than expected and combined with the low PPV of this alert system resulted in our team rejecting widespread adoption of SIRS-based sepsis alerts.

Presentation Type:
Poster Presentation - Poster Presentation
Subject Category: Antibiotic Stewardship
Timing Is Everything: Recognizing the Importance of Infusion Duration in Preoperative Antimicrobial Prophylaxis

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Background: For preoperative antimicrobials to be most effective in preventing surgical site infection, they must be administered early enough to reach a minimum tissue concentration that is specific to each drug.

However, antibiotics have widely ranging infusion durations, from intravenous push over a few minutes to slow infusion over two hours. Heterogeneity in recommended infusion administration instructions, importance of infusion completion prior to incision, and complexity of healthcare systems present just some of the barriers to achieving appropriate preoperative antibiotic prophylaxis. We compared the percentage of infusion completion prior to case start before and after a multidisciplinary intervention. **Methods:** We performed a retrospective analysis of all patients undergoing a colorectal surgical procedure as defined by the National Healthcare Safety Network at a single university hospital from 10/19/22-10/18/23. A recognition that some antimicrobials were not finished infusing prior to surgery start prompted a multidisciplinary group including antibiotic stewardship, colorectal surgery, perioperative nursing, and anesthesiology to create and deploy an order set shortening metronidazole infusion duration from 60 to 30 minutes and initiating infusion in the preoperative area instead of the operating room. No change to the cefazolin intravenous push over 3-5 minutes was made. Goal antimicrobial infusion was defined as completed infusion within 120 minutes prior to incision, and calculations were made based on infusion start time and case start times. Rate of infusion completion was compared from the pre-intervention period to a post-intervention period from 10/19/23 through the end of the year. **Results:** For all colorectal surgeries in the pre-intervention period, 95% (n=418/440) of cefazolin doses and 0.002% (n=1/427) doses of metronidazole met goal infusion timing. At-goal infusion timing increased to 99% (n=84/85) of cefazolin doses and 68% (n=56/82) of metronidazole doses in the post-intervention period, resulting in a statistically significant improvement for metronidazole (Fischer's exact test p < 0 .00001). The average time to metronidazole infusion completion changed from 45 minutes after procedure start to 58 minutes before procedure start. **Conclusions:** Multidisciplinary team engagement and deployment of an order set incorporating changes in duration and workflow for metronidazole infusion improved all antimicrobial preoperative infusions for colorectal procedures. Increased awareness of completing antimicrobial infusion prior to the incision may improve preoperative antimicrobial administration.

Disclosure: Lindsay Donohue: Advisor - Abbvie

Presentation Type:
Poster Presentation - Poster Presentation
Subject Category: C. difficile
Comparison of Medicare Claims-based Clostridioides difficile infection classification to chart review using a linked cohort

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Background: Medicare claims are frequently used to study Clostridioides difficile infection (CDI) epidemiology. Categorizing CDI based on location of onset and potential exposure is critical in understanding transmission patterns and prevention strategies. While claims data are well-suited for identifying prior healthcare utilization exposures, they lack specimen collection and diagnosis dates to assign likely location of onset. Algorithms to