

**Conclusion.** Implementation of additional stewardship practices, including mandatory antimicrobial indication/duration and a 48-hour time out, decreased the use of antimicrobials, including those not monitored by our ASP. These efforts augmented, but did not replace existing stewardship efforts. These results support initiatives highlighted by national organizations to minimize unnecessary antimicrobial use through ASP.

**Disclosures.** All authors: No reported disclosures.

### 232. Do Antibiotic Timeouts Improve Antibiotic Utilization?

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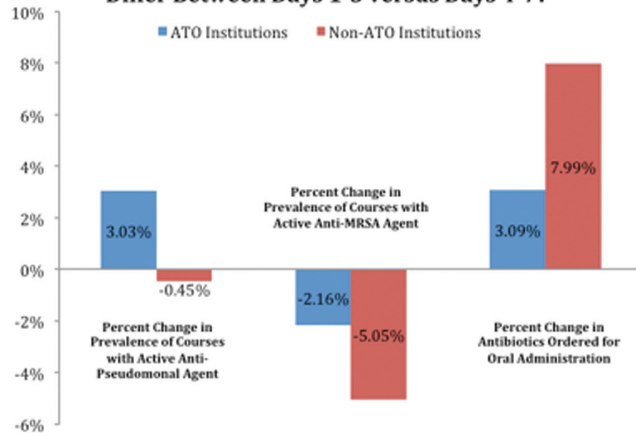
**Background.** The antibiotic timeout (ATO) is a stewardship tool that protocolizes review of objective clinical data after a predefined period of time and encourages antimicrobial regimen re-assessment.

**Methods.** Vizient member hospitals were utilized to recruit a variety of acute healthcare institutions, including institutions with and without an ATO process. Participating institutions submitted de-identified patient-level antibiotic therapy courses from a single day within a 5-week window to create a snapshot of overall antibiotic utilization. Therapy courses were evaluated on metrics including the prevalence of anti-pseudomonal agents, agents active against methicillin-resistant *Staphylococcus aureus* (MRSA), and oral (vs. intravenous) antibiotics. The outcome measures included: percent changes in prevalence of courses with antipseudomonal and anti-MRSA agents after day 3, and percent change in antibiotics ordered for oral administration after day 3. These outcome measures were compared between ATO institutions and non-ATO institutions.

**Results.** A total of 6,184 antibiotic therapy courses were collected from 61 participating institutions (17 ATO institutions; 44 non-ATO institutions). Of 71 institutions that completed enrollment survey, 10 did not complete submission of therapy course data. Antibiotic courses prescribed for prophylaxis ( $n = 975$ ) and courses that extended beyond 7 days ( $n = 1,192$ ) were excluded from analysis, resulting in an analysis group that included 4,017 therapy courses (1,396 from ATO institutions vs. 2,621 from non-ATO institutions). The prevalence of patients receiving anti-pseudomonal agents increased after day 3 by 3.03% ( $P = 0.28$ ) at ATO institutions and decreased 0.45% ( $P = 0.84$ ) at non-ATO institutions. The prevalence of patients receiving anti-MRSA agents decreased after day 3 by 2.16% ( $P = 0.41$ ) at ATO institutions and decreased 5.05% ( $P = 0.005$ ) at non-ATO institutions. Oral antibiotic use increased after day 3 by 3.09% ( $P = 0.08$ ) at ATO institutions while use at non-ATO institutions increased 7.99% ( $P = 0.0001$ ).

**Conclusion.** Antibiotic therapy course data collected across multiple sites provided no evidence for improved antimicrobial utilization among institutions that have implemented an antibiotic timeout compared with institutions without a timeout.

**Figure 1: How Did Antibiotic Therapy Courses Differ Between Days 1-3 versus Days 4-7?**



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### 233. Evaluation of an Antimicrobial Time-Out on Antimicrobial Utilization at a Large Health System

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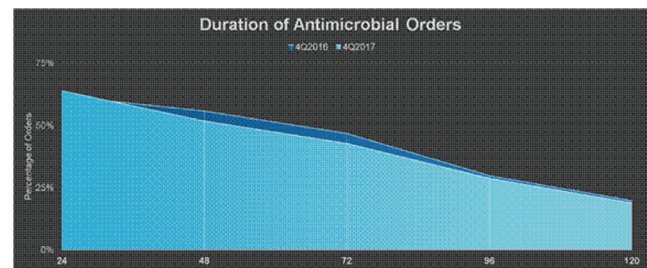
**Background.** Infectious Diseases Society of America and Society for Healthcare Epidemiology Guidelines for Implementing an Antibiotic Stewardship Program (ASP) and the CDC Core Elements of Hospital ASP include antimicrobial time-outs (ATO) as an example of a recommended action. There are limited data evaluating the impact of ATOs on antimicrobial use. Cleveland Clinic Health-System (CCHS) implemented a 72-hour ATO for antimicrobials with an empiric indication and no stop date within the electronic health record. This study aimed to assess the effect of an ATO on antimicrobial utilization.

**Methods.** Retrospective, quasi-experimental study of patients between October 1–December 31, 2016 and 2017 who received at least one systemic antimicrobial agent while admitted to a US-based CCHS hospital. Primary objective was to compare the days of therapy (DOT) per 1,000 patient-days of broad-spectrum agents before and after ATO implementation. Secondary objectives included comparing indications for use, actions taken as a result of the ATO, and rate of *Clostridium difficile*. Antimicrobial groupings per National Healthcare Safety Network AUR Module.

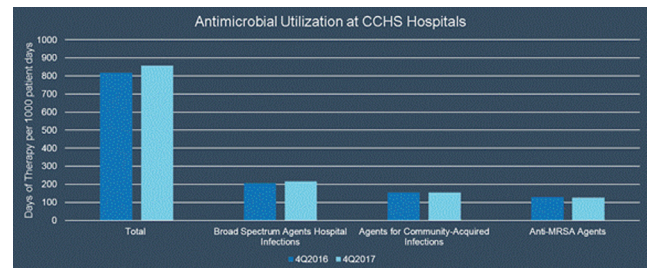
**Results.** In 4Q2016, there were 75,982 antimicrobial orders in 31,945 encounters, of which 5,029 encounters had an empiric antimicrobial active at 72 hours. In 4Q2017, there were 78,418 antimicrobial orders in 33,378 encounters, which led to 38,129 ATOs in 6,138 encounters. Mean duration of therapy was 71 hours in 4Q2016 vs. 62 hours in 4Q2017,  $P < 0.05$  (Figure 1). DOT/1,000 patient-days did not differ (Figure 2). Orders with the indication of pathogen directed did not change (14.1% vs. 14.4%;  $P = 0.11$ ). Of 16,009 ATOs acknowledged by clinicians, 2,195 (14%) prompted antimicrobial discontinuation, while 684 alerts (4%) prompted de-escalation. There was no difference in encounters with positive *C. difficile* PCR, 123 (2.4%) vs. 152 (2.5%).

**Conclusion.** Implementation of an ATO for all antimicrobials within an electronic health record decreased duration of therapy but not DOT/1,000 patient-days. Further study is needed to define optimal ATO characteristics (targeted vs. all antimicrobials, 48 vs. 72 hours, etc.) and potential impact on utilization and appropriate antimicrobial usage.

**Figure 1.**



**Figure 2.**



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### 234. Improving Antimicrobial Prescribing and Rate of Infectious Diseases Consult Utilizing a Best-Practice Alert and Targeted Education for *Staphylococcus aureus* Bacteremia

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**Background.** Delays in time to appropriate management and antimicrobial therapy in patients with *Staphylococcus aureus* bacteremia (SAB) lead to dramatic increases in mortality, cost, and length of hospital stay. This study assesses the impact of antimicrobial stewardship pharmacist (ASP)-led Verigene education sessions paired with a physician targeted EPIC best practice alert (BPA) on time to appropriate therapy and rate of infectious diseases (ID) consult for patients SAB.

**Methods.** This single-center pre-post study included adult patients with SAB from October 2016 through January 2018. A BPA was implemented in August 2017, and fired for any patient with SAB and no ID consult. The BPA provided four recommendations: (1) repeat blood cultures till clearance, (2) obtain ID consult, (3) start vancomycin for SAB with *mecA* gene (i.e., MRSA) and nafcillin or cefazolin for SAB without *mecA* gene