

(i.e., MSSA), and (4) obtain echocardiogram. The ASP also provided education on antimicrobial therapy choices and optimization to clinical pharmacists and ID physicians. The hospital utilized Verigene Gram-positive blood culture nucleic acid test during both study periods and ASP review of SAB cases without an ID consult in the preintervention phase. The primary outcome was time to appropriate therapy defined as the time a positive blood culture was drawn to the time of first appropriate antibiotic administration.

Results. A total of 223 patients with SAB were included; 134 were in the 10-month historic group (October 2016–July 2017) and 89 were in the 5-month postintervention (PI) group (August 2017–January 2018). The BPA fired for 86% ($n = 77$) of patients in the PI group. Average time to appropriate therapy for all SAB patients and patients with MSSA significantly improved following the intervention (35.1 vs. 20.4 hours, $P = 0.004$; 53.2 vs. 30.3 hours, $P = 0.001$). During the intervention phase, therapy was more frequently changed between the time of Verigene results and antibiotic susceptibilities (77.6% vs. 86.5%, $P = 0.254$). The rate of ID consult also significantly improved following the intervention (89.6% vs. 97.8%, $P < 0.02$).

Conclusion. Implementing an SAB BPA and education on interpretation of Verigene results for SAB significantly improved time to appropriate therapy for all patients with SAB, patients with MSSA bacteremia, and rate of ID consult.

Disclosures. All authors: No reported disclosures.

235. If Symptoms Aren't Described, Antibiotics Aren't Prescribed: Implementation of a Multifaceted Toolkit Targeting Overtreatment of Asymptomatic Bacteriuria across a Large Health-system

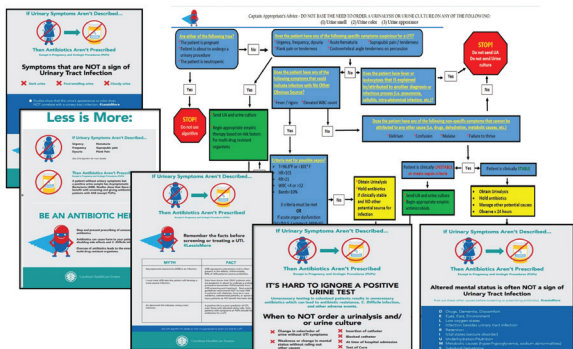
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Session: 51. Antimicrobial Stewardship: Interventions to Improve Outcomes
Thursday, October 4, 2018: 12:30 PM

Background. Overtreatment of asymptomatic bacteriuria (ASB) is a major challenge for antimicrobial stewardship (ASP). A February 2017 review of our health-system showed >50% of inpatients with a positive urine culture (PUC) were treated despite no urinary tract infection (UTI) symptoms or compelling indications (CI) [pregnancy or pending urologic procedure]. In Fall 2017, we piloted a multifaceted toolkit (MTK) to support an ASB educational campaign (EC) at 26 hospitals.

Methods. A MTK of flyers, a urinary testing algorithm, and narrated slides (Figure 1) was distributed in Fall 2017 and implementation was customized by each hospital's ASP. Impact of EC on treatment of patients with no urinary symptoms (NUS) or altered mental status (AMS) alone were assessed retrospectively by sampling inpatient PUCs from February 1–28, 2018 in a manner identical to a pre-EC sample. Patients were excluded if: CI, age <18 years, neutropenic, or admitted on UTI therapy or with nephrolithiasis. Demographic, clinical, and laboratory data; UTI symptoms; microbiology results; and antimicrobial therapy received, were collected via an adapted CDC UTI assessment form. Each hospital was surveyed on MTK implementation.

Figure 1. MTK Components



Results. Preliminary pre- and post-EC data from the same 14 hospitals are shown. Patients with NUS decreased slightly post-EC, while those with ≥ 1 -specific symptom increased. Treatment of those with NUS declined post-EC, and those with AMS alone received less empiric therapy.

Figure 2. Patient Symptoms Pre- and Post-EC

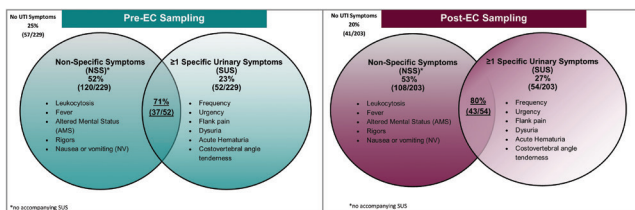
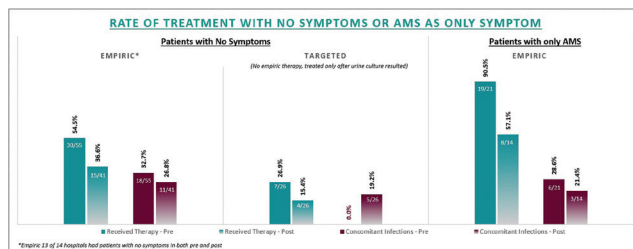


Figure 3. Treatment of Patients with NUS or with AMS as Only Symptom



Twelve hospitals (86%) completed the MTK survey. Six used all components, five some, and one none. Those who implemented the MTK cited flyers and slides as most useful and preferred the AMS flyer. Although available, only 55% of hospitals affirmed provider algorithm use.

Conclusion. Post-EC, less patients with a PUC had NUS, those with NUS were less likely to be treated, and those with AMS alone received less empiric therapy. MTK implementation appeared to impact ASB treatment, and perhaps, testing. Lower use of the testing algorithm may signal a need for simplification. More data are needed to identify which component(s) of the MTK are most effective.

Disclosures. L. Davidson, Duke Endowment: Grant Investigator, Grant recipient

236. The Impact of Earlier Intervention by an Antimicrobial Stewardship Team on Appropriate Antimicrobial Therapy for Specific Antimicrobial Agents

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Session: 51. Antimicrobial Stewardship: Interventions to Improve Outcomes
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Background. The optimal timing of intervention to obtain significant effects with regard to reducing the consumption of antimicrobial agents or antimicrobial-resistant bacteria in facilities that lack the manpower to maintain an antimicrobial stewardship team (AST) is not well-known.

Methods. An observational retrospective study was performed at Fukuoka University Hospital between April 1, 2013 and March 31, 2016 to evaluate the optimal timing of intervention on appropriate antimicrobial therapy for specific antimicrobial agents, including broad-spectrum antimicrobial agents (piperacillin-tazobactam, carbapenems, fluoroquinolones) and anti-MRSA (vancomycin, teicoplanin, daptomycin, and linezolid) agents. In period 1, interventions were performed for patients using specific antimicrobial agents for >14 days. In period 2, interventions were performed for patients using anti-MRSA agents, and in period 3, interventions were performed for patients using any specific antimicrobial agents, regardless of the days of use, on a weekly basis. The effects on antimicrobial use, the antimicrobial-resistant bacteria, and the clinical outcomes among the three periods were compared.

Results. The AUDs of piperacillin-tazobactam and carbapenems decreased significantly (10.8 → 9.2 and 15.7 → 14.2; period 2 vs. period 3, $P < 0.05$). The rates of piperacillin-tazobactam, meropenem and levofloxacin resistance in *Pseudomonas aeruginosa* isolates decreased from 13.8%, 16.2%, 11.9% in period 1 to 10.4%, 8.7%, 6.5% in period 3, respectively. The annual costs of these antimicrobials decreased according to the period: period 1, US\$ 1,080,000; period 2, US\$ 944,000; and period 3, US\$ 763,000 (period 3 vs. period 1, $P < 0.01$). No recurrence was observed within 7 days after intervention and the mortality rate and length of stay did not change to a statistically significant extent in any of the study periods.

Conclusion. When interventions were performed once a week by an ASP team, accelerating the timing of intervention from patients with >14 days of use to all patients treated with the specific antimicrobial agents was significantly more effective for reducing the consumption of antimicrobials leading to reduction of the related costs and antimicrobial-resistant *P. aeruginosa* without compromising the patient outcomes.

Disclosures. T. Takata, Taisho Toyama Pharmaceutical Co. Ltd.: Speaker's Bureau, Speaker honorarium

237. Antibiotic Assessment at Discharge-Room for Stewardship Intervention

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Session: 51. Antimicrobial Stewardship: Interventions to Improve Outcomes
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Background. Currently, there is minimal literature detailing the utility or approach to antibiotic stewardship interventions at the transition of care. We sought to evaluate the utility of a stewardship approach where appropriateness of choice and duration of oral antibiotics prescribed at the time of discharge was assessed and, when indicated, recommendations for change provided.

Methods. Between June 2017 and April 2018, an antimicrobial stewardship team, comprising of a pharmacist and infectious disease provider, reviewed the electronic