

all participants reflected that they learned elements of antimicrobial decision-making during clinical rotations, through observation or direct interaction with physician mentors and patients. Several participants described the preclinical period as content learning, with clinical rotations providing a space to consolidate and scaffold knowledge, as well as transfer knowledge to new situations or tasks. Of the 6 students interviewed regarding the antimicrobial decision-making tool, only one remembered it and could accurately describe its components prior to being shown the tool during the interview. **Conclusion:** Results suggest that participants view the pre-clinical ID/Microbiology course primarily as an opportunity to learn content, and perceive learning antimicrobial decision-making directly from practicing physicians in the clinical portion of medical school. An antimicrobial decision-making tool introduced during the preclinical ID/Microbiology course in 2021 did not impact students' conceptualization of how they learned this skill. Given that practicing physicians often make antimicrobial prescribing errors, regular re-introduction of the tool during clinical rotations may help bridge preclinical antimicrobial educational content to the clinical phase of learning, counteract inappropriate antimicrobial lessons encountered clinically, and ground students' burgeoning antimicrobial prescribing skills in a logical reasoning model.

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**Subject Category:** Antibiotic Stewardship

**Outcomes in Patients with Untreated Versus Treated Asymptomatic Bacteriuria within 5 Veterans Affairs Facilities**

Kelly Davis, Lexington VA HealthCare System; Jessica Bennett, Lt. Col Weathers Jr VA Medical Center; Angela Kaucher, James H. Quillen VA Medical Center; Bowden Jarred, Lt. Col. Luke Weathers, Jr. VA Medical Center; Brittany DeJarnett, Robley Rex VA Medical Center; Garrett Fannin, Lexington VA HealthCare System; Morgan Johnson, Tennessee Valley Healthcare System; Anna Mitchell, Department of Veterans Affairs; Colby Osborne, James H. Quillen VA Medical Center; Caroline Powers, Ralph H. Johnson VA Medical Center; Caroline Williams, Lt. Col. Luke Weathers, Jr. VA Medical Center; Dana Williams, Lt. Col. Luke Weathers, Jr. VA Medical Center and Hans Scheerenberger, James H. Quillen VA Medical Center

**Background:** Asymptomatic bacteriuria (ASB) is often treated with antibiotics despite recommendations against screening for and treating ASB in most populations. Some providers cite concern for progression of ASB to a symptomatic urinary tract infection (UTI) as the justification for antibiotic use. While the 2019 Infectious Diseases Society of America (IDSA) ASB guidelines refute this concern, most evidence is derived from studies done in females, potentially limiting external validity. The purpose of this study is to compare the outcomes of patients with ASB who received antibiotic treatment versus those who did not in a primarily male population. **Methods:** This is a multi-center, retrospective, cohort study conducted by the 5 sites within the Veterans Affairs MidSouth Healthcare Network. Patients with a positive urine culture (defined as cultures with a colony forming unit count >100,000) collected from January 1, 2021 through December 31, 2021 were identified. ASB was determined via chart review using pre-determined criteria (positive culture in the absence of reported or documented signs or symptoms attributable to UTI as defined by the 2019 IDSA ASB guidelines). Additional data collected included antibiotic use, clinic visits and hospital admissions related to UTI or sepsis from a UTI. The primary outcome was the comparison of UTI incidence at 30 days, 6 months, and 1 year in those untreated versus treated with antibiotics. Secondary outcomes included a comparison of admissions with sepsis from UTI and adverse drug reactions (ADRs) between the cohorts. Continuous data were analyzed using a Student's t-test. Discrete data were analyzed using either a Chi-squared or Fisher's exact test. **Results:** The study population was primarily elderly (73 years, range 27-99 years) and male (79.7%). Of the 281 patients with ASB, 127 (45.2%) and 154

(54.8%) were untreated and treated, respectively. The incidence of UTI was 3% versus 1% (p = 0.41) at 30 days, 10% versus 12% (p = 0.61) at 6 months and 11% versus 12% (p = 0.94) at 12 months in the untreated and treated cohorts, respectively. There was no difference in admissions for UTI, sepsis from UTI or ADRs at 30 days. **Conclusion:** This study found no difference in the development of symptomatic UTI in veterans with untreated ASB compared to those treated with antibiotics. These findings align with current ASB guideline recommendations and support avoidance of unnecessary antibiotic use in the veteran population.

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**Epidemiology and Duration of Therapy in Patients with Gram-negative Bloodstream Infections: Retrospective Analysis**

Hawra Al Lawati, Beth Israel Deaconess Medical Center; Ellen Cook, Beth Israel Deaconess Medical Center and Matthew Lee, Beth Israel Deaconess Medical Center

**Background:** Longer courses of antibiotics can be associated with antimicrobial resistance and adverse effects. Randomized clinical trials support treating gram-negative bloodstream infections (GN-BSI) for a shorter duration with a consensus that a seven-day course of antibiotics is appropriate for uncomplicated GN-BSI. Prior to the implementation of a GN-BSI treatment guideline at our institution, we aimed to evaluate the characteristics of patients with GN-BSI and the duration of antibiotic therapy (DOT). **Method:** We retrospectively reviewed adult inpatients who had a blood culture with at least 1 gram-negative organism within 6 months (November 2022 to April 2023). Patients were excluded if they had a concomitant gram-positive bloodstream infection or if they were transitioned to comfort-focused care within 48 hours of their first positive blood culture. Complicated GN-BSI was defined as exhibiting any of the following: involvement of bone, joint, endovascular system, or foreign body, an inability to achieve source control, immunocompromised status, or failure to demonstrate clinical improvement or culture clearance within 72 hours. The primary outcome of this study was the mean DOT in patients with GN-BSI. **Result:** 100 patients met the inclusion criteria. *Escherichia coli*, identified in 54 cases, emerged as the most frequent organism. Urine (41) was the predominant source of bacteremia. Cefepime (48) was the most common empiric agent used. Of the 91 patients with available ceftriaxone susceptibility results, 84% had a susceptible organism. Amongst the 51 patients classified as having a complicated GN-BSI, the leading reason was immunosuppression. Table 1 presents a comparative analysis of complicated vs. uncomplicated GN-BSI. The average DOT for complicated GN-BSI was longer than the uncomplicated infections (20 vs. 11 days, P < 0.005). Additionally, fewer patients transitioned to oral therapy in the complicated group (33% vs. 67%, P < 0.005). **Conclusion:** At our institution, patients with uncomplicated GN-BSI have a shorter DOT and are more likely to transition to oral therapy than those with complicated GN-BSI. However, the mean DOT for uncomplicated infections remained longer than seven days and a large number of uncomplicated GN-BSI patients did not transition to oral therapy, indicating room for improvement in local practice through antimicrobial stewardship initiatives.

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	Total (N=100)	Complicated GN-BSI (N=51)	Uncomplicated GN-BSI (N=49)
<b>DOT in days- mean (SD)</b>	15 (10)	20 (12)	11 (3)
<b>Transition to oral therapy -no. of patients (%)</b>	50 (50%)	17 (33%)	33 (67%)
<b>Infectious Diseases Consulted- no. of patients (%)</b>	59 (59%)	37 (73%)	22 (45%)