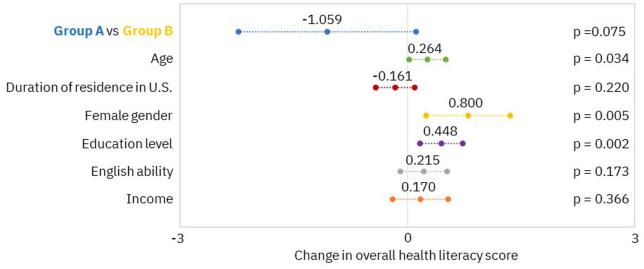

Figure 5: Size effect of demographic variables in multivariable linear regression with health literacy score. End points show 95% confidence intervals.

showed that female gender, educational level, and age correlated with greater health literacy, while being in group A trended towards significance with respect to correlating with lesser health literacy (Figure 5). **Conclusions:** Immigrants and refugees/asylum-seekers from LMICs demonstrated beliefs suggesting deficits in knowledge of AMR compared to native-born Americans and those from high-income countries, independent of other potentially confounding demographic characteristics. Female gender, educational level, and age independently correlated with greater health literacy. These results could inform future patient-centered antimicrobial stewardship educational interventions in certain target populations such as immigrants and refugees/asylum-seekers in the United States.

Disclosures: None

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Proposing the "continuum of UTI" for a nuanced approach to antimicrobial stewardship

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Background: Historically, diagnosis of urinary tract infections (UTIs) has been divided into 3 categories based on symptoms and urine culture results: not UTI, asymptomatic bacteriuria (ASB), or UTI. However, some populations (eg, older adults, catheterized patients) may not present with signs or symptoms referrable to the urinary tract or have chronic lower urinary tract symptoms (LUTS), making the diagnosis of UTI challenging. We sought to understand the clinical presentation of patients who receive urine tests in a cohort of diverse hospitals. **Methods:** This retrospective descriptive cohort study included all adult noncatheterized inpatient and ED encounters with paired urinalysis and urine cultures (24 hours apart) from 5 community and academic hospitals in 3 states (NC, VA, GA) between January 1, 2017, and December 31, 2019. Trained abstractors collected clinical and demographic data using a 60-question REDCap survey. The study group met with multidisciplinary experts (ID, geriatrics, urology) to define the "continuum of UTI" (Table 1), which includes 2 new categories: (1) LUTS to capture patients with chronic lower urinary tract symptoms and (2) bacteriuria of unclear significance (BUS) to capture patients who do not clinically meet criteria for ASB or UTI (eg, older adults who present with delirium and bacteriuria). The newly defined categories were compared to current guideline-based categories. We further compared ASB, BUS, and UTI categories using a lower bacterial threshold of 1,000 colony-forming units. **Results:** In total, 220,531 encounters met study criteria. After using a random number generator and removing duplicates, 3,392 encounters were included. Based on current IDSA guidelines, the prevalence of ASB was 32.1% (n = 975), and prevalence of patients with "not UTI" was 1,614 (53%). Applying the expert panel's

Table 1: Comparison of Urinary Tract Infection (UTI) categories based on current IDSA guidelines and new "continuum of UTI" definition.

UTI Classification based on current IDSA guidelines (n, %)

Category	Not UTI (Mixed + Negative cultures)	Asymptomatic Bacteriuria (Positive culture cut off ≥100,000 colony forming units (cfu))	Definitive UTI
	1614 (53)	975 (32.1)	452 (14.9)

New Definition of Continuum of UTI (n, %)

Category	Not UTI	LUTS	ASB	BUS	Definitive UTI
Culture	Mixed + Negative cultures		Positive culture cut off ≥100,000 cfu		
	1147 (37.7)	467 (15.3)	226 (7.4)	749 (24.6)	452 (14.9)

Sensitivity Analysis: Continuum of UTI (Bacterial Cut-offs lowered, n, %)

Category	Not UTI	LUTS	ASB	BUS	Definitive UTI
Category	Mixed + Negative cultures		Positive culture cut off ≥1000 cfu		
Culture	1147 (33.8)	467 (13.8)	276 (8.1)	962 (28.4)	540 (15.9)

Not UTI: Negative or mixed urine culture based on above criteria with no lower or upper urinary tract symptoms
LUTS: Negative or mixed urine culture based on criteria above plus dysuria, urgency, frequency, suprapubic/flank pain or tenderness, incontinence/retention, neurogenic bladder, urologic obstruction, other urologic issues.
Asymptomatic Bacteriuria (ASB): Positive urine culture based on criteria above but no lower or upper urinary tract symptoms
Bacteriuria of Unclear Significance (BUS) Positive urine culture based on above criteria but does not meet criteria for ASB or UTI (e.g., Positive urine culture + fever, or positive urine culture + confusion)
Definitive UTI: Positive urine culture based on criteria above plus dysuria, urgency, frequency, suprapubic/flank pain or tenderness **OR** two clinical criteria (fever + hypothermia) **OR** one clinical criterion + one urologic criterion:
Clinical criteria: fever/rigors/hypotension/hypothermia/shock/nausea vomiting/confusion/leukocytosis. **Urologic Criteria:** urologic procedure or surgery causing mucosal bleeding, urologic obstruction, e.g., stones or active malignancy; retention or incontinence; urologic trauma causing hematuria(catheter trauma; stent placement, etc)

new "continuum of UTI" definitions, the prevalence of "not UTI" patients decreased to 1,147 (37.7%), due to reassignment of 467 patients (15.3%)to LUTS. The prevalence of ASB decreased by 24% due to reassignment to BUS. Lowering the bacterial threshold had a slight impact on the number of definitive UTIs (14.9 vs 15.9%) (Table 1). **Conclusions:** Our rigorous review of laboratory and symptom data from a diverse population dataset revealed that diagnostic uncertainty exists when assessing patients with suspicion for UTI. We propose moving away from dichotomous approach of ASB versus UTI and using the "continuum of UTI" for stewardship conversations. This approach will allow us to develop nuanced deprescribing interventions for patients with LUTS or BUS (eg, watchful waiting, shorter course therapy) that account for the unique characteristics of these populations.

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Changes in US long-term care facility antibiotic prescribing, 2013–2021

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Background: Antibiotic use (AU) data are needed to improve prescribing in long-term care facilities (LTCFs). CMS requires AU tracking in LTCFs (effective 2017). Although most LTCFs have limited resources for AU tracking, LTCFs contract with LTCF pharmacies to dispense, monitor, and review medications. The objective of our analysis was to report LTCF antibiotic prescribing and characterize temporal changes from 2013 to 2021. **Methods:** We estimated annual systemic AU rates using prescription dispenses and resident census data from PharMerica, a LTCF-pharmacy services provider that covers ~20% of LTCFs nationwide, although the number of LTCFs and residents serviced by PharMerica varied over time (Fig. 1). We included LTCFs with ≥4 months of antibiotic dispensing and 12 months of census data. We identified courses by collapsing the same drug dispensed to the same resident within 3 days of the preceding end date. Course duration was calculated as the difference between