review; we suspect that this is partly explained by underdocumentation of criteria such as stool frequency. In healthcare settings where appropriateness of HO-CDI testing is not optimal, mandatory ID attending physician approval may provide an option beyond clinical decision-support tools.

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Appropriateness of Initiating Antibiotics for Urinary Tract Infection Among Nursing Home Residents

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Background: Antibiotics are among the most commonly prescribed drugs in nursing homes; urinary tract infections (UTIs) are a frequent indication. Although there is no gold standard for the diagnosis of UTIs, various criteria have been developed to inform and standardize nursing home prescribing decisions, with the goal of reducing unnecessary antibiotic prescribing. Using different published criteria designed to guide decisions on initiating treatment of UTIs (ie, symptomatic, catheter-associated, and uncomplicated cystitis), our objective was to assess the appropriateness of antibiotic prescribing among NH residents. **Methods:** In 2017, the CDC Emerging Infections Program (EIP) performed a prevalence survey of healthcare-associated infections and antibiotic use in 161 nursing homes from 10 states: California, Colorado, Connecticut, Georgia, Maryland, Minnesota, New Mexico, New York, Oregon, and Tennessee. EIP staff reviewed resident medical records to collect demographic and clinical information, infection signs, symptoms, and diagnostic testing documented on the day an antibiotic was initiated and 6 days prior. We applied 4 criteria to determine whether initiation of treatment for UTI was supported: (1) the Loeb minimum clinical criteria (Loeb); (2) the Suspected UTI Situation, Background, Assessment, and Recommendation tool (UTI SBAR tool); (3) adaptation of Infectious Diseases Society of America UTI treatment guidelines for nursing home residents (Crnich & Drinka); and (4) diagnostic criteria for uncomplicated cystitis (cystitis consensus) (Fig. 1). We calculated the percentage of residents for whom initiating UTI treatment was appropriate by these criteria. **Results:** Of 248 residents for whom UTI treatment was initiated in the nursing home, the median age was 79 years [IQR, 19], 63% were female, and 35% were admitted for postacute care. There was substantial variability in the percentage of residents with antibiotic initiation classified as appropriate by each of the criteria, ranging from 8% for the cystitis consensus, to 27% for Loeb, to 33% for the UTI SBAR tool, to 51% for Crnich and Drinka (Fig. 2). **Conclusions:** Appropriate initiation of UTI treatment among nursing home residents remained low regardless of criteria used. At best only half of antibiotic treatment met published prescribing

Figure 1. Summary of criteria used to assess appropriateness of antibiotic treatment initiation for urinary tract infections.

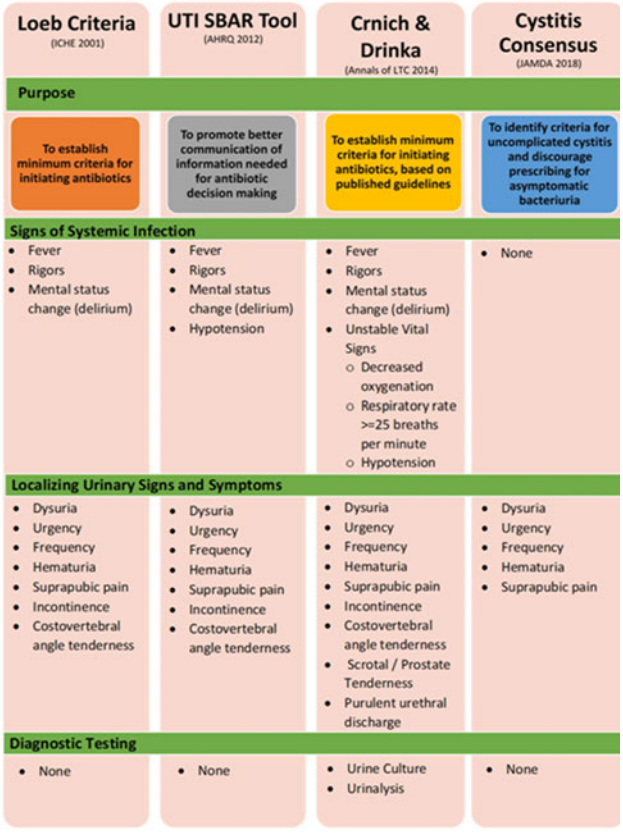
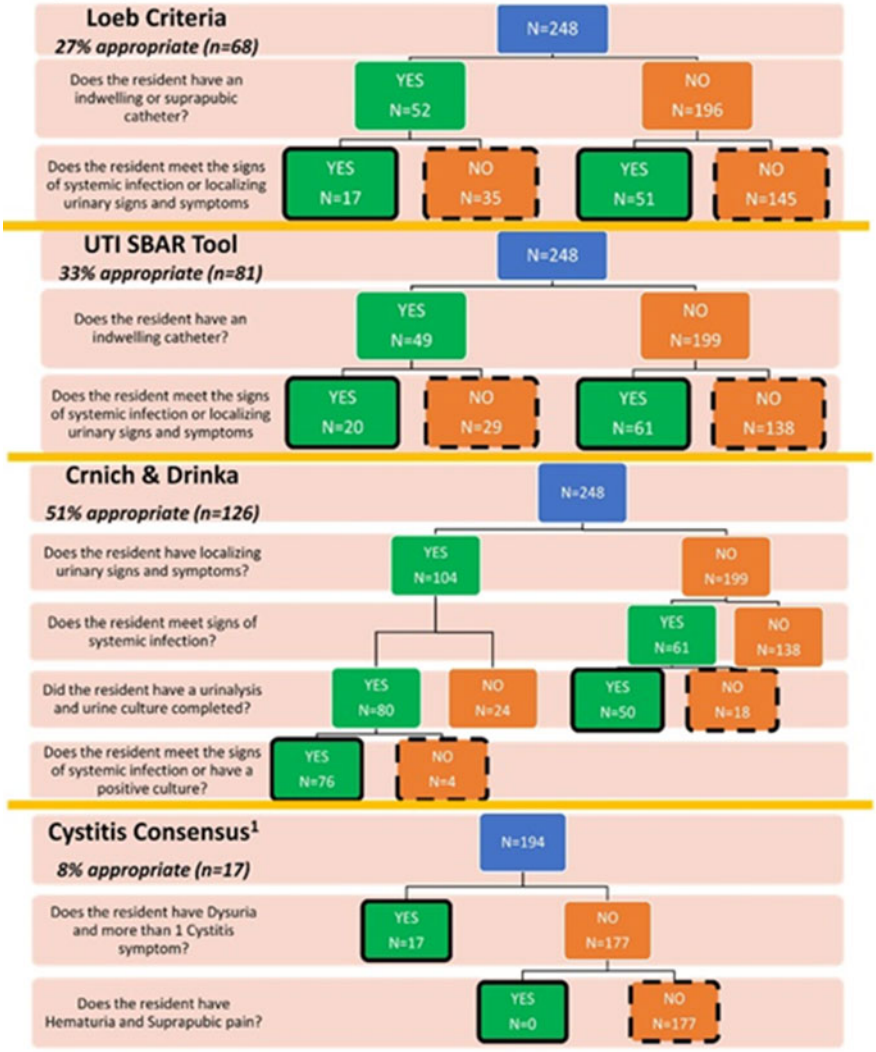


Fig. 1.

Figure 2. Appropriateness of Antibiotic Initiation in Nursing Home (NH) Residents for NH initiated, active treatment of UTI (n=248)



Note: Please refer to Figure 1 – the summary of criteria used to assess appropriateness of antibiotic treatment initiated for urinary tract infection, for signs of systemic infection and localizing urinary signs and symptoms for each of the criteria listed above.

[1] Denominator for Cystitis Consensus is less than the total due to the exclusion of possible complicated urinary tract infections. These were residents with an indwelling catheter and/or signs and symptoms indicative of pyelonephritis, renal abscess, and prostatitis.

Fig. 2.

criteria. Although insufficient documentation of infection signs, symptoms and testing may have contributed to the low percentages observed, adequate documentation in the medical record to support prescribing should be standard practice, as outlined in the CDC Core Elements of Antibiotic Stewardship for nursing homes. Standardized UTI prescribing criteria should be incorporated into nursing home stewardship activities to improve the assessment and documentation of symptomatic UTI and to reduce inappropriate antibiotic use.

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Area-Based Socioeconomic Status Measures and Incidence of Community-Associated ESBL-Producing Enterobacteriaceae, 2017

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