



Nursing Home Antimicrobial Stewardship Guide Determine Whether To Treat

Toolkit 1. Suspected UTI SBAR Toolkit

Tool 2. Clinician Letter

[PRINTED ON NURSING HOME OR MEDICAL DIRECTOR'S STATIONERY]

[Date]

[Prescribing Clinician Name]

Recipient Address

City, State Zip]

Re: Change in protocol regarding urinalyses to improve quality of care and antibiotic use

Dear [insert name],

Based on clinical practice guidelines developed by nursing home, infectious disease, and geriatric experts, our facility has decided to modify its protocol around urinalyses to optimize antibiotic use for urinary tract infections (UTIs). We will use a research-based and effective Toolkit, the Suspected Urinary Tract Infection (UTI) Situation, Background, Assessment, and Request (SBAR) form to facilitate gathering critical information by nurses to communicate to prescribing clinicians. The Suspected UTI SBAR form is intended to enhance communication and provide guidance regarding managing potential UTIs and indications for ordering urinalyses and cultures. The SBAR communication style has been shown to promote better communication by addressing the specific types of information that clinicians are likely to need for decisionmaking.

As you know, UTIs are the most commonly treated infection among nursing home residents, but proper diagnosis and treatment pose significant and distinctive challenges. Although residents with specific UTI symptoms like dysuria usually need treatment, urinalyses and cultures may be obtained for a variety of reasons, and their results may lead to a prescription for an antibiotic when only bacteriuria or pyuria is present.



However, research provides no evidence that treating asymptomatic bacteriuria in older adults is of benefit. Antimicrobial treatments do not affect the prevalence of bacteriuria, the frequency of symptomatic urinary infections, morbidity, or mortality.^{1,2,3} Asymptomatic bacteriuria applies to a positive result from any routinely collected culture without corresponding urinary symptoms, such as one obtained after a course of antibiotics used to treat an infection (“test for cure”).

Moreover, research has shown that such treatments are potentially harmful. Nursing homes serve as one of our most fertile breeding grounds for antibiotic-resistant strains of bacteria—a very high rate of antibiotic use gives rise to multidrug-resistant organisms, including methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci, and fluoroquinolone-resistant strains of a variety of bacteria.^{4,5,6,7} In addition, residents with asymptomatic bacteriuria who were treated with an antibiotic have been found to be 8.5 times more likely to develop *Clostridium difficile* infection within the 3 months following their course of antibiotics.⁸

Embedded in the Suspected UTI SBAR form is our new protocol for initiating antibiotics for UTIs. In addition to providing standardized information to help with decisionmaking, a prescribing clinician will be provided with recommendations from the nursing home’s criteria for initiating antibiotics. These recommendations will be based on current best practices and clinical guidelines developed by Loeb et al.,⁹ and include newer surveillance information by Stone et al.¹⁰ Nonetheless, prescribing decisions ultimately rest with the prescribing clinician. As with any guideline, unusual circumstances requiring exceptional treatment will occur.

¹ Nicolle LE. Asymptomatic bacteriuria—Important or not? *N Engl J Med*. 2000;343(14):1037-9. PMID: 11018172.

² Colgan R, Nicolle LE, McGlone A, et al. Asymptomatic bacteriuria in adults. *Am Fam Physician*. 2006 Sep;74(6):985-90. PMID: 17002033.

³ U.S. Preventive Services Task Force. Screening for asymptomatic bacteriuria in adults: U.S. Preventive Services Task Force reaffirmation recommendation statement. *Ann Intern Med*. 2008 Jul;149(1):43-7. PMID: 18591636.

⁴ Denis O, Jans B, Deplano A, et al. Epidemiology of methicillin-resistant *Staphylococcus aureus* (MRSA) among residents of nursing homes in Belgium. *J Antimicrob Chemother*. 2009 Dec;64(6):1299-306. PMID: 19808236.

⁵ Lautenbach E, Marsicano R, Tolomeo P, et al. Epidemiology of antimicrobial resistance among gram-negative organisms recovered from patients in a multistate network of long-term care facilities. *Infect Control Hosp Epidemiol*. 2009 Aug;30(8):790-3. PMID: 19566445.

⁶ Mathei C, Niclaes L, Suetens C, et al. Infections in residents of nursing homes. *Infect Dis Clin N Am*. 2007;21:761-2.

⁷ Sandoval C, Walter SD, McGeer A, et al. Nursing home residents and *Enterobacteriaceae* resistant to third-generation cephalosporins. *Emerg Infect Dis*. 2004 June;10(6):1050-5. PMID: PMC3323163.

⁸ Rotjanapan P, Dosa D, Thomas KS. Potentially inappropriate treatment of urinary tract infections in two Rhode Island nursing homes. *Arch Intern Med*. 2011 Mar;171(5):438-43. PMID: 21403040.

⁹ Loeb M, Bentley DW, Bradley S, Crossley K, Garibaldi R, Gantz N, McGeer A, Muder RR, Mylotte J, Nicolle LE, Nurse B, Paton S, Simor AE, Smith P, Strausbaugh L. Development of minimum criteria for the initiation of antibiotics in residents of long-term-care facilities: results of a consensus conference. *Infect Control Hosp Epidemiol*. 2001 Feb;22(2):120-4. Review. PubMed PMID: 11232875.

¹⁰ Stone ND, Ashraf MS, Calder J, Crnich CJ, Crossley K, Drinka PJ, Gould CV, Juthani-Mehta M, Lautenbach E, Loeb M, Maccannell T, Malani PN, Mody L, Mylotte JM, Nicolle LE, Roghmann MC, Schweon SJ, Simor AE, Smith PW, Stevenson KB, Bradley SF; Society for Healthcare Epidemiology Long-Term Care Special Interest Group. Surveillance definitions of infections in long-term care facilities: revisiting the McGeer criteria. *Infect Control Hosp Epidemiol*. 2012 Oct;33(10):965-77. doi: 10.1086/667743. PubMed PMID: 22961014; PubMed Central PMCID: PMC3538836.

In preparation for implementing the form, please find enclosed a copy of the Suspected UTI SBAR form.

Your cooperation with our new protocol is greatly appreciated. We deeply appreciate your assistance in making this a success. If you have any questions, please feel free to contact me at your convenience at [insert contact information].

Sincerely,

[Insert name, title, and address]

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