



5 WAYS NURSING HOME CLINICIANS CAN BE ANTIBIOTICS AWARE



1. Improve Fluoroquinolone Prescribing Practices

- Due to risk of serious adverse events, the U.S. Food and Drug Administration issued a warning to limit fluoroquinolone prescribing in specific conditions, such as acute bacterial sinusitis and uncomplicated urinary tract infections (UTI), where other treatment options are available.¹
- When possible, consider alternatives to fluoroquinolones when prescribing antibiotics for nursing home residents.
- Review the fluoroquinolone susceptibility patterns, when antibiogram data are available, and adjust nursing home protocols and treatment guidelines accordingly.
- Provide education to facility staff, nursing home residents, and their families about adverse events associated with antibiotic use.



2. Avoid Treatment of Asymptomatic Bacteriuria

- Residents with asymptomatic bacteriuria (ASB) should not be treated with antibiotics in most cases.² There is no clear evidence supporting the use of intermittent or prolonged antibiotic use for ASB in nursing home residents.²⁻⁴ Antibiotic use, especially if prolonged, can select for antibiotic resistance and cause adverse drug events.
- Consider using protocols that evaluate UTI-specific signs and symptoms before testing and starting antibiotics at your facility.
- Provide education to facility staff about signs and symptoms of UTI.



3. Avoid Antibiotic Therapy for Viral Respiratory Tract Infections

- Respiratory tract infections are the second most common cause of antibiotic prescribing in nursing homes.⁵
- Upper respiratory tract infections and acute uncomplicated bronchitis should not be treated with antibiotics.⁶
- Avoid antibiotic therapy for residents with respiratory tract infections unless pneumonia is suspected or they meet criteria for antibiotic initiation.⁷⁻⁸



4. Improve Evaluation of Suspected Skin and Soft Tissue Infections

- Skin and soft tissue infections (SSTI) are frequently misdiagnosed or treated inappropriately in nursing homes.⁹
- Consider non-infectious (e.g. thromboembolic disease, stasis dermatitis, gout) or non-bacterial (e.g. fungal, herpes simplex or zoster, scabies) etiologies when considering antibiotic therapy for SSTI.¹⁰
- Avoid cultures of superficial skin wounds and non-infected decubitus ulcers.



5. Use the Shortest Effective Antibiotic Duration

- Guidelines for treatment duration are available for common infectious diseases, such as pneumonia, UTI, and SSTI.¹¹⁻¹³ Antibiotic treatment courses are sometimes prolonged in nursing home residents.¹⁴
- Use the shortest recommended duration of antibiotic therapy if the resident has an uncomplicated clinical course and responded appropriately to therapy.

The scenarios and recommendations are applicable to most nursing home residents. This document is meant to provide general guidance and does not apply to all clinical scenarios. Always assess the individual resident, use your clinical judgment and follow your facility's protocols and treatment guidelines when applicable.



www.cdc.gov/antibiotic-use

References:

1. "FDA Drug Safety Communication: FDA updates warnings for oral and injectable fluoroquinolone antibiotics due to disabling side effects." U.S. Food and Drug Administration, 26 Oct. 2017. <https://www.fda.gov/Drugs/DrugSafety/ucm511530.htm>
2. Nicolle LE, Bradley S, Colgan R, et al. Infectious Diseases Society of America guidelines for the diagnosis and treatment of asymptomatic bacteriuria in adults. *Clin Infect Dis*. 2005;40(5):643-54.
3. Giannella M, Tedeschi S, Bartoletti M, et al. "Prevention of infections in nursing homes: antibiotic prophylaxis versus infection control and antimicrobial stewardship measures." *Expert Rev Anti Infect Ther*. 2016;14(2):219-30.
4. Ahmed H, Davies F, Francis N, et al. "Long-term antibiotics for prevention of recurrent urinary tract infection in older adults: systematic review and meta-analysis of randomised trials." *BMJ Open*. 2017 May 29;7(5):e015233.
5. Thompson N, LaPlace L, Epstein L, et al. "Prevalence of Antimicrobial Use and Opportunities to Improve Prescribing Practices in U.S. Nursing Homes." *J Am Med Dir Assoc*. 2016 Dec 17(12):1151-1153.
6. Harris A, Hicks L, Gaseem A, et al. "Appropriate Antibiotic Use for Acute Respiratory Tract Infection in Adults: Advice for High-Value Care From the American College of Physicians and the Centers for Disease Control and Prevention." *Ann Intern Med*. 2016 Mar 15;164(6):425-34.
7. Loeb MI, Bentley DW, Bradley S, et al. "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.
8. "Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease-2019 Report." January 2019. <http://goldcopd.org/>
9. Feldstein D, Sloane P, Weber D, et al. "Current Prescribing Practices for Skin and Soft Tissue Infections in Nursing Homes." *J Am Med Dir Assoc*. 2017 Mar 18(3):265-270.
10. Jump R, Crnich C, Mody L. "Infectious Diseases in Older Adults of Long-Term Care Facilities: Update on Approach to Diagnosis and Management." *J Am Geriatr Soc*. 2018 Apr;66(4):789-803.
11. Mandell L, Wunderink R, Anzueto A, et al. Infectious Diseases Society of America/American Thoracic Society consensus guidelines on the management of community-acquired pneumonia in adults. *Clin Infect Dis*. 2007;44 Suppl 2:S27-72.
12. Gupta K, Hooton T, Naber K, et al. International clinical practice guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women: A 2010 update by the Infectious Diseases Society of America and the European Society for Microbiology and Infectious Diseases. *Clin Infect Dis*. 2011;52(5):e103-120.
13. Stevens D, Bisno A, Chambers H, et al. Practice guidelines for the diagnosis and management of skin and soft tissue infections: 2014 update by the Infectious Diseases Society of America. *Clin Infect Dis*. 2014;59(2):e10-52.
14. Daneman N, Gruneir A, Bronskill S, et al. "Prolonged antibiotic treatment in long-term care: role of the prescriber." *JAMA Intern Med*. 2015 Apr 22;175(8):875-82.