



Cost-estimates of antibiotics in nursing homes range from

\$38 million to
\$137 million
per year.¹



Residents in nursing homes with higher antibiotic use have a

24%
increased risk
of antibiotic-related harm.²



In nursing homes with higher antibiotic use,
even residents who do not receive antibiotics are at increased risk

of indirect antibiotic-related harms due to the spread of resistant bacteria or *C. difficile* germs from other patients.²



Core Elements for Antibiotic Stewardship in Nursing Homes

Creating a Culture to Improve Antibiotic Use in Nursing Homes

Why is Antibiotic Stewardship Important for Nursing Homes?

- ▶ Antibiotics are some of the most commonly prescribed medications in nursing homes.
 - Over the course of a year, up to 70% of nursing home residents get an antibiotic.
- ▶ Roughly 40% to 75% of antibiotics are prescribed incorrectly.
 - In nursing homes, high rates of antibiotics are prescribed to prevent urinary tract infection (UTI) and respiratory tract infection (RTI). Prescribing antibiotics before there is an infection often contributes to misuse.
 - Often residents are given antibiotics just because they are colonized with (carrying) bacteria that are not making the person sick. Prescribing antibiotics for colonization contributes to antibiotic overuse.
- ▶ When patients are transferred between facilities, for example from a nursing home to a hospital, poor communication between facilities about prescribed antibiotics (e.g., rationale, number of days) plus insufficient infection control practices can result in antibiotic misuse and the spread of antibiotic resistance.
- ▶ Antibiotic-related harms, such as diarrhea from *C. difficile*, can be severe, difficult to treat, and lead to hospitalizations and deaths, especially among people over age 65.
- ▶ Current nursing home regulations (e.g., F-tag 441, F-tag 329, F-tag 428) already include a requirement to review and monitor antibiotic use.

What Can I Do as a Leader to Improve Antibiotic Use?

- ▶ Share formal statements in support of improving antibiotic use with staff, residents and families.
- ▶ Commit resources for monitoring antibiotic use and providing feedback to staff.
- ▶ Identify and empower the medical director, director of nursing, and/or consultant pharmacist to lead stewardship activities.
- ▶ Have clear policies to improve prescribing practices for staff to ensure patients are not started on antibiotics unless needed.
 - Establish minimum criteria for prescribing antibiotics,
 - Develop facility-specific standards for empiric antibiotic use, based on data from the facility; and
 - Review antibiotic appropriateness and resistance patterns on a regular basis.
- ▶ Print and distribute materials to educate staff, residents and families.
- ▶ Provide access to individuals with antibiotic expertise for support staff accountable for implementing antibiotic stewardship activities.
- ▶ Partner with antibiotic stewardship program leaders at hospitals and infectious diseases consultants in the community.

¹ Strausbaugh LJ, Joseph CL. Burden of Infections in Long-Term Care. *Infect Control Hosp Epidemiol* 2000;21:674-679.

² Daneman, N et.al. Variability in Antibiotic Use Across Nursing Homes and the Risk of Antibiotic-Related Adverse Outcomes for Individual Residents. *JAMA Intern Med.* 2015; E1-E9.



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