



# In the Know

Nursing Home Edition

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## Introduction

Greetings from the Louisiana Healthcare-Associated Infections & Antibiotic Resistance Prevention Program! The mission of the Louisiana Healthcare-Associated Infections and Antibiotic Resistance (HAI/AR) Prevention Program is to protect patients by preventing healthcare-associated infections and the proliferation of antibiotic resistant organisms through surveillance, outbreak response, and infection control education across the provider spectrum.

Working towards the elimination of healthcare-associated infections, we have identified long-term care facilities as important partners in the effort to reduce preventable infections and curb the spread of antibiotic resistant organisms. The Centers for Medicare and Medicaid Services (CMS) has also taken notice of the role of long-term care facilities in preventing infections, evidenced by their newest regulations requiring nursing homes to have infection control and antibiotic stewardship programs.

While many facilities already have infection control programs in place, very few nursing homes have robust antibiotic stewardship programs that meet CDC's 7 Core Elements of Antibiotic Stewardship. During these next 3 months, the Louisiana HAI/AR Prevention Program will be highlighting each of the core elements in this newsletter. One newsletter will be released each month through November to prepare facilities for the November 28, 2017 implementation date for Phase 2 CMS requirements. Thereafter, newsletters will be released quarterly and will cover infection control topics and provide resources relevant to long-term care.

Moving forward, we would like this newsletter to serve as a collaborative project and appreciate any feedback or ideas for future issues. Do you have an infection control or antibiotic stewardship success story? We'd love to share it in a future newsletter! If there is a topic that you would like covered or if you have a success story that we can highlight, please contact Andrea Salinas at [Andrea.Salinas@la.gov](mailto:Andrea.Salinas@la.gov).



Preventing  
Infections



## Why Antibiotic Stewardship?

Antibiotic overuse contributes to the growing problems of *Clostridium difficile* infections and antibiotic resistance in healthcare facilities. Reducing unnecessary antibiotic use can decrease antibiotic resistance, *Clostridium difficile* infections, healthcare costs, and improve patient outcomes. Interventions to improve antibiotic use can be implemented in any healthcare setting across the healthcare spectrum – from the smallest to the largest facilities.

Nursing homes are an especially important healthcare setting where antibiotic stewardship programs should be implemented because they are home to a population that is especially susceptible to life-threatening infections. Approximately 4.1 million Americans are admitted to reside in nursing homes during a year. Up to 70% of these nursing home residents receive one or more courses of antibiotics in a year and 40 - 75% of antibiotics are incorrectly prescribed (wrong drug, dose, duration, or reason). Incorrect antibiotic use can lead to harm for nursing home patients including serious diarrheal infections with *Clostridium difficile*, increased adverse drug events and drug interactions, and colonization and/or infection with antibiotic resistant organisms.

The Core Elements for Antibiotic Stewardship were originally created for acute care hospitals, but have been adapted into practical ways to implement stewardship activities in nursing homes. Nursing homes are encouraged to work in a step-wise fashion by implementing one or two activities to start and gradually adding new strategies from each element over time. Any action taken to improve antibiotic use is expected to reduce adverse events, prevent emergence of resistance, and lead to better outcomes for residents in this setting.

## CDC's 7 Core Elements of Antibiotic Stewardship: Leadership Commitment, Accountability, & Drug Expertise

### Leadership Commitment

Nursing home leaders should commit to improving antibiotic use. This should come from facility leadership, both owners and administrators, as well as regional and national leaders if the facility is part of a larger corporation. This can occur in the following ways:

- **Written statements supporting the improvement of antibiotic use** to be shared with staff, residents, and families
  - The Leaders committed to Antibiotic Stewardship page lists statements of support from national organizations, including the Advancing Excellence in Long-Term Care Collaborative and the Society for Post-Acute and Long-Term Care Medicine:  
<https://www.cdc.gov/drugresistance/federal-engagement-in-ar/stewardship-commitment/index.html>
- **Include stewardship-related duties in position descriptions** for the medical director, clinical nurse leads, and consultant pharmacists in the facility
- **Communication** with nursing staff and prescribing clinicians about the facility's expectations regarding use of antibiotics and the monitoring and enforcement of stewardship policies.
- **Creating a culture**, through messaging, education, and celebrating improvement, which promotes antibiotic stewardship
  - This document outlines ways in which nursing home leadership can create a culture of antibiotic stewardship in their facilities:  
<https://www.cdc.gov/longtermcare/pdfs/factsheet-core-elements-creating-culture-improve-use.pdf>

## Accountability

Nursing homes should identify individuals accountable for the antibiotic stewardship activities who have the support of facility leadership.

- The **medical director** should set standards for antibiotic prescribing practices for all clinical providers credentialed to deliver care and should be accountable for making sure standards are being followed.
- Nurses and nurse aides play a key role in the decision-making process for starting an antibiotic. The **director of nursing** should set practice standards for assessing, monitoring, and communicating changes in a resident's condition.
- A **consultant pharmacist** should provide quality assurance activities such as medication regimen review and report antibiotic use data.
- **Infection prevention coordinators** have key expertise and data to inform strategies to improve antibiotic use. This includes tracking of antibiotic starts, monitoring adherence to evidence-based published criteria during the evaluation and management of treated infections, and reviewing antibiotic resistance patterns in the facility to understand which infections are caused by resistant organisms. When infection prevention coordinators have training, dedicated time and resources to collect and analyze infection surveillance data, this information can be used to monitor and support antibiotic stewardship activities.
  - This free nursing home training session from the CMS's QIO program website, provides a basic overview of antibiotic resistance, implementing antibiotic stewardship programs, and preventing *Clostridium difficile*: <http://qioprogram.org/antibiotic-stewardship>

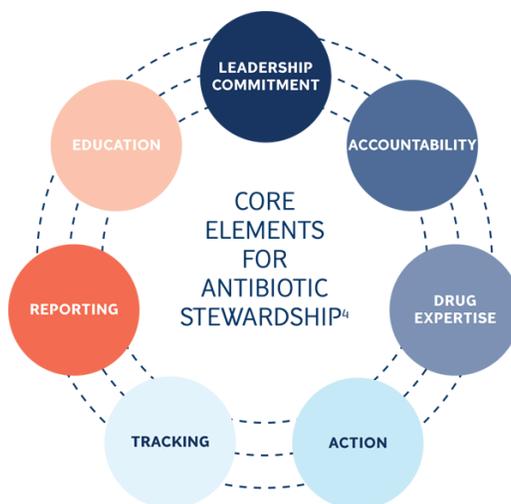
## Accountability: Creating an Antibiotic Stewardship Team

An antibiotic stewardship program team should be created which includes at least two members to serve as antibiotic stewardship champions. Two champions are recommended to increase the chance that the antimicrobial stewardship program always has a leader through periods of staff change. The team could include any of the aforementioned members, but may also include charge nurses or the assistant director of nursing. These individuals should lead the effort and be responsible for program outcomes. These leaders should have the following qualities:

- a. A basic knowledge of antibiotics
- b. An interest in playing a leadership role in the nursing home
- c. The respect of his or her peers
- d. An understanding of how to be a good team player
- e. An understanding of the importance of improving antibiotic use in nursing homes

This document from the Agency for Healthcare Research and Quality (AHRQ) provides a sample table to outline assignment of roles and responsibilities to antibiotic stewardship team members:

[https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/3\\_TK1\\_T2-Roles\\_and\\_Responsibilities\\_final.pdf](https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/3_TK1_T2-Roles_and_Responsibilities_final.pdf)



### Drug Expertise

Nursing homes should establish access to individuals with antibiotic expertise to implement antibiotic stewardship activities. Receiving support from infectious disease consultants and consultant pharmacists with training in antibiotic stewardship can help a nursing home reduce antibiotic use and experience lower rates of positive *C. difficile* tests. Examples of establishing antibiotic expertise include:

- **Working with a consultant pharmacist** who has received specialized infectious diseases or antibiotic stewardship training.
- **Partnering with antibiotic stewardship program leads** at the hospitals within your referral network. These individuals should have some interest in your antibiotic stewardship programs because you share patients and, therefore, infections.
- **Develop relationships** with infectious disease consultants in your community interested in supporting your facility's stewardship efforts.

## Influenza in Long-term Care

Since 2005, CMS has required nursing homes to offer and document influenza vaccinations for their residents annually. While that requirement does not apply to healthcare workers, CDC and the Advisory Committee on Immunization Practices (ACIP), recommend that all health care personnel get vaccinated annually against influenza. Health care personnel who get vaccinated help to reduce the following:

- Transmission of influenza
- Staff illness and absenteeism
- Influenza-related illness and death, especially among people at increased risk for severe influenza illness

Higher vaccination levels among personnel have been associated with a lower risk of health care facility-associated influenza cases and influenza outbreaks in nursing homes have been attributed to low influenza vaccination coverage among health care personnel.

CDC considers facilities with 2 or more residents with confirmed or suspected influenza to be having an outbreak. In these cases, the Infectious Disease Epidemiology (IDEpi) Section should be contacted to assist in infection control measures and chemoprophylaxis recommendations. Many facilities may be using rapid influenza tests, but false negative results are possible during influenza season. The IDEpi Section can also help coordinate confirmatory influenza testing at the State Public Health Laboratory. To report a suspected outbreak of influenza or any other infectious disease, an epidemiologist can be reached 24/7 at 1-800-256-2748.

