



**ANTIBIOTIC
STEWARDSHIP
PROGRAM
IMPLEMENTATION
GUIDE**

Introduction

It has become a national priority to improve the use of antibiotics in healthcare to protect patients and reduce adverse events associated with antibiotic use. As part of the revised Requirements for Participation, the Centers for Medicare and Medicaid (CMS) has required all long-term care (LTC) facilities to have an antibiotic stewardship program (ASP). Antibiotic stewardship refers to a set of commitments and actions designed to “optimize the treatment of infections while reducing the adverse events associated with antibiotic use” (CDC, 2014).

This guide was designed to help nursing homes plan for, introduce, implement, and sustain an ASP. It is not intended to replace CMS guidelines for requirements or replace the Centers for Disease Control and Prevention (CDC) recommendations. It is only intended to help a nursing home understand what resources are available and how to use them.

There are many resources available online. With so many resources available, a nursing home can become overwhelmed. Often, facilities are not sure how to start and what resources are the best for their home. This guide uses the resources available from the CDC, the Agency for Healthcare Research and Quality (AHRQ) and the Minnesota Department of Health Nursing home tool kit. Here are links to each site.

<https://www.cdc.gov/longtermcare/pdfs/core-elements-antibiotic-stewardship.pdf>

<https://www.ahrq.gov/nhguide/index.html>

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/index.html>

It is very important that each home understand that this is a process. Nursing homes are encouraged to work in a step-wise fashion, selecting one or two activities to start with and over time, as improvements are implemented, expand efforts to add new strategies to continue to improve antibiotic use. The CDC strongly recommends building this program so that the staff and clinicians do not become overwhelmed and that they have a strong foundation and understanding of why and what they are implementing.

The CDC developed a guide, “The Core Elements of Antibiotic Stewardship,” for nursing homes to assist with the implementation of ASP. It is recommended that nursing home leadership read this document to gain understanding of what the core elements are for their program. The document includes a checklist that homes can use to ensure they are staying on track.

The 7 Core Elements are:

1. Leadership commitment
2. Accountability
3. Drug expertise
4. Action
5. Tracking
6. Reporting
7. Education

<https://www.cdc.gov/longtermcare/pdfs/core-elements-antibiotic-stewardship.pdf>

The AHRQ has developed several toolkits to guide nursing homes in the implementation of ASPs. It also provides additional tools and resources for establishing, monitoring and sustaining an ASP.

<https://www.ahrq.gov/nhguide/index.html>

The Minnesota Department of Health collaborated with experts to develop a toolkit for nursing home implementation of ASP. Their website provides practical tools and educational materials that could be useful for some homes.

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/>

This guide will provide a step by step approach to implementation using resources from all three sites. The guide will walk you through 7 basic steps. These steps will incorporate the “Core Elements” into the steps listed below.

- 1. Gather a team**
- 2. Define roles and responsibilities of the team/committee**
- 3. Conduct a readiness assessment**
- 4. Plan for Implementation**
- 5. Draft and develop policy and procedures**
- 6. Introduce and educate new policies and procedures to staff**
- 7. Track and report outcomes**

1. Gather a Team

It is recommended that you start by identifying at least two champions. Champions are staff that will lead the overall activity. It is recommended to have two champions to ensure continuity if leadership changes occur within the facility. The champion may also be referred to as the “Chair.” It is not necessary that the Chair or Champion be the Medical Director (MD). However, it is important the MD is part of the team and supports and participates in the activities of the ASP. It is recommended that the team include at minimal, the MD or designee, Director of Nursing or Assistant Director of Nursing, Infection Control Nurse, Pharmacy Consultant, and if available Infection Preventionist. Other members can be added to the team such as the Administrator, Infectious Disease consultants, charge nurses and nurse aides. Here is a link to assist you in building your team.

https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/3_TK1_T1-Gather_a_Team_final.docx

2. Define Roles and Responsibilities of the Team or Committee

It is important that the members of the team understand their roles and responsibilities. It is also recommended that this be included when you write your policy. This will help identify and define the leadership commitment towards the ASP and facilitate accountability among team members. Leadership and Accountability are the first two elements of the “Core Elements.”

<https://www.cdc.gov/longtermcare/pdfs/Factsheet-Core-Elements-Leading-Antibiotic-Stewardship.pdf>

https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/3_TK1_T2-Roles_and_Responsibilities_final.docx

- a. After the team is formed they should write statements in support of improving antibiotic use to be shared with staff, residents and families.

EXAMPLE:

[Insert NH name] is committed to improving the use of antibiotics in this facility to protect our residents and reduce adverse events associated with antibiotic use.

- b. It is important to promote accountability among team members. This can be accomplished by empowering the members.

Empower the MD to:

- i. Set standards for antibiotic prescribing practices for all clinical providers credentialed to deliver care in a nursing home. (Identify best practice protocols and implement into practice.)
- ii. Be accountable to overseeing adherence. MD should review antibiotic use data (See tracking and reporting section) and ensure best practices are followed in the medical care of residents in the facility.

Empower the DON or ADON to set practice standards:

- iii. DON to educate staff on standards for assessing, monitoring and communicating changes in the resident's condition (educate on importance of ASP, best practice protocols, SBAR tools etc.). Links are included in the Education section of this document.
- c. Engage the consultant pharmacist to participate in quality assurance activities such as medication regimen review and reporting of antibiotic use data (refer to recommended role responsibility of consultant pharmacy).
<https://www.cdc.gov/longtermcare/pdfs/Factsheet-Core-Elements-Leading-Antibiotic-Stewardship.pdf>
- d. Leaders of ASP can utilize other resources to support their program (other resources include: Infection prevention coordinator, consultant laboratory, AHCA, state and local health department).
- e. Establish access to drug expertise.
 - i. Work with a consultant pharmacist.
 - ii. Consider consulting with an infectious disease consultant in your community to support your efforts. (I.e., Infectious Disease Doctors, Infection Control Nurses, Department of Health.)
 - iii. Consider consulting a partner hospital antibiotic stewardship lead as a resource.

3. Conduct a Readiness Assessment

Conducting a readiness assessment will assist the team in determining what their needs, priorities and resources are. This will also help the team determine which toolkit would be most useful for their efforts.

https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/3_TK1_T3-Readiness_Assessment_final.docx

<https://www.ahrq.gov/nhguide/about/choosing-the-right-toolkit.html>

4. Plan for Implementation

Gather the team and plan for implementation by following the recommended agenda included here as a guide. At this meeting, you will refer to your readiness assessment and review available toolkits to determine what meets the needs of your facility best.

https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/3_TK1_T4-Implementation_Planning_Sample_Agenda_final.docx

5. Draft and Develop Policy and Procedures for ASP-

- a. A sample policy has been developed based on the work of a team of experts that was published in JAMDA. Each facility should use this as a starting point and should adapt the policy to meet the needs of their facility. The sample policy is provided as Appendix A at the end of this document.

Introducing policy and practice change to staff should be done in a step-wise fashion. Here is a guide to this process.

<https://www.cdc.gov/longtermcare/pdfs/core-elements-antibiotic-stewardship-appendix-a.pdf>

b. Implement new practice protocols into practice

- i. The nursing home should prioritize the interventions based on the needs of the facility (i.e. start with UTI). Share results with staff and celebrate outcomes.
- ii. Policies that support optimal antibiotic use include medication safety policies and medication regimen review.
- iii. Standardize the practices used during the care of any resident suspected of an infection or started on an antibiotic. (Refer to Nursing Communication tools, Nursing Process Change in Condition tools, and Clinical Decision-making tools listed below).
- iv. Implement practice protocols for improving the evaluation and communication of clinical signs and symptoms (Refer to Nursing Communication tools, and SBAR tools listed below).
- v. Implement practice changes that optimize the use of diagnostic testing.
- vi. Implement an antibiotic review process (antibiotic time-out) that provides the clinicians with the opportunity to reassess the ongoing need for and choice of antibiotic.
- vii. Engage the pharmacy consultant in the ASP to provide assistance in ensuring antibiotics are ordered appropriately, review culture data, and develop antibiotic monitoring with the team
- viii. Identify clinical situations that may be driving inappropriate use of antibiotics (i.e. asymptomatic bacteriuria or urinary tract infection prophylaxis and implement interventions to improve).

The team will determine which practice protocols will be implemented first based on their needs and priorities. There are many resources available to assist with implementation of practice protocols. Here are a few practice protocol resources the team may find useful.

THE FOLLOWING RESOURCES ARE FROM:

<https://www.ahrq.gov/nhguide/index.html>

Minimum Criteria for antibiotic use

<https://www.ahrq.gov/nhguide/toolkits/determine-whether-to-treat/antibiotic-tool.html>

Suspected UTI Toolkit

<https://www.ahrq.gov/nhguide/toolkits/determine-whether-to-treat/toolkit1-suspected-uti-sbar.html>

Suspected UTI SBAR

https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/4_TK1_T1-SBAR_UTI_Final.pdf

Suspected Lower Respiratory Track SBAR

https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/4_TK3_T2b-SBAR_LRI_Final.pdf

Suspected Skin and Soft Tissue Infection SBAR

https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/4_TK3_T2c-SBAR_SST_Final.pdf

Common Suspected Infections, Communication and Decision Making tool for 4 Infections

<https://www.ahrq.gov/nhguide/toolkits/determine-whether-to-treat/toolkit2-communications-and-decisionmaking.html>

Minimum Criteria for 3 Infections Toolkit

<https://www.ahrq.gov/nhguide/toolkits/determine-whether-to-treat/toolkit3-minimum-criteria.html>

Helping Clinicians Choose the Right Antibiotic Toolkit

<https://www.ahrq.gov/nhguide/toolkits/help-clinicians-choose-the-right-antibiotic/toolkit1-working-with-a-lab.html>

<https://www.ahrq.gov/nhguide/toolkits/help-clinicians-choose-the-right-antibiotic/toolkit2-concise-antibiogram-toolkit.html>

<https://www.ahrq.gov/nhguide/toolkits/help-clinicians-choose-the-right-antibiotic/toolkit3-develop-implement-antibiogram-program.html>

Tool options for Monitoring Outcomes

<https://www.ahrq.gov/nhguide/toolkits/implement-monitor-sustain-program/toolkit2-monitor-sustain-program.html>

THE FOLLOWING RESOURCES ARE FROM:

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/>

Antibiotic Use tool

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxb.pdf>

Nursing Communication tool

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxg.pdf>

Nursing Process- Change in resident Condition

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxf.pdf>

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxh.pdf>

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxi.docx>

Infection Surveillance Tools

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxj.pdf>

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxk.pdf>

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxlinstructions.pdf>

Clinical Decision Making Tools

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxm.pdf>

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/lcabxcard.html>

Minimal criteria for initiation of antibiotics: Printable 2-sided card

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/lcabxcard.pdf>

Minimal Criteria for initiation of antibiotics: Printable poster size

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/lcabxcardposter.pdf>

6. Introduce and Educate staff on New Policies and Practice Changes to Staff

Education should be provided to clinicians, nursing staff, residents and families. The AHRQ has a toolkit for educating the staff, residents and families. It can be found here:

<https://www.ahrq.gov/nhguide/toolkits/educate-and-engage/index.html>

This toolkit includes handouts and a 4 step process for implementing the education element into your ASP.

Education should include:

- a) The goal of ASP.
- b) The responsibility of each group for ensuring implementation and success.
- c) Consider using different modes of education such as (flyers, pocket guides, newsletters, electronic communication, face to face education through in-services and seminars.
- d) Use above methods for providers, but also consider providing providers with data on their prescribing practices.
- e) Consider above styles of education for families and consider special sessions at family council meetings as well.

Resources for Educational tools

<https://www.cdc.gov/longtermcare/pdfs/Infographic-Antibiotic-Stewardship-Nursing-Homes.pdf>

<https://www.cdc.gov/longtermcare/pdfs/factsheet-core-elements-10-infection-prevention-questions.pdf>

<https://www.cdc.gov/longtermcare/pdfs/factsheet-core-elements-what-to-ask.pdf>

<https://www.cdc.gov/longtermcare/pdfs/factsheet-core-elements-what-you-need-to-know.pdf>

Other Resources for Education of Staff and Families:

Education Modules for Nurses and Nursing Assistants

Antibiotic Use & Antibiotic Resistance

Educational Module for Nurses in Long-term Care Facilities: Antibiotic Use & Antibiotic Resistance

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modprintnurseabx.pdf>

Slides

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modslidenurseabx.pdf>

Post-Test Questions

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modanswernurseabx.pdf>

Educational Module for Nursing Assistants in Long-term Care Facilities: Antibiotic Use & Antibiotic Resistance

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modprintnaabx.pdf>

Slides

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modslidenaabx.pdf>

Post-Test Questions

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modanswernaabx.pdf>

Clostridium difficile Infection Prevention

Educational Module for Nurses in Long-term Care Facilities: Preventing and Managing Clostridium difficile Infections

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modprintnursecdi.pdf>

Slides

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modslidenursecdi.pdf>

Post-Test Questions

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modanswernursecdi.pdf>

Educational Module for Nursing Assistants in Long-term Care Facilities: Preventing and Managing Clostridium difficile Infections

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modprintnacdi.pdf>

Slides

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modslidenacdi.pdf>

Post-Test Questions

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modanswernacdi.pdf>

Urinary Tract Infections and Asymptomatic Bacteriuria

Educational Module for Nurses in Long-term Care Facilities: Urinary Tract Infections & Asymptomatic Bacteriuria

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modprintnurseuti.pdf>

Slides

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modslidenurseuti.pdf>

Post-Test Questions

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modanswernurseuti.pdf>

Educational Module for Nursing Assistants in Long-term Care Facilities: Urinary Tract Infections & Asymptomatic Bacteriuria

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modprintnauti.pdf>

Slides

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modslidenauti.pdf>

Post-Test Questions

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/modanswernauti.pdf>

7. Tracking and reporting outcomes

The facility should begin by monitoring at least one process measure of antibiotic use and at least one outcome from antibiotic use in the facility. It is important to provide regular feedback on progress to clinicians and staff. You should make sure to develop an Antibiotic Stewardship Program that is specifically tailored to your facility and considers the proper role of the Quality Assessment and Assurance Committee.

- a. Examples of process measures that could be measured and monitored include, but are not limited to: perform reviews on resident records for new antibiotic starts to determine whether the clinical assessment, prescription documentation and antibiotic selection were in accordance with practice protocols. Another measure is to track the amount of antibiotics used in the facility to review patterns of use and to monitor effects for the ASP (use antibiotic prevalence surveys, and or start dates, length of treatment or antibiotic time-outs as measures).
- b. Other measures include tracking adverse outcomes or cost of antibiotics. Examples include: rates of C Difficile, antibiotic resistance and adverse events.
- c. Review and update guidelines annually. Check to make sure guidelines are up to date (i.e. UTI). Refer to the CDC website for up to date guidelines for infections and suspected infections.

HERE ARE RESOURCES FOR TRACKING AND MONITORING:

Tool options for Monitoring Outcomes

https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/3_TK2_T2-Antibiotic_Use_Tracking_Sheet_Final.pdf

https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/3_TK2_T3-Sample_Monthly_Summary_Reports_Final.docx

https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/3_TK2_T4-Quarterly_or_Monthly_Prescribing_Profile_Final.docx

<https://www.ahrq.gov/nhguide/toolkits/implement-monitor-sustain-program/toolkit2-monitor-sustain-program.html>

<https://www.cdc.gov/longtermcare/pdfs/core-elements-antibiotic-stewardship-appendix-b.pdf>

Antibiotic Use tool

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxb.pdf>

Infection Surveillance Tools

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxj.pdf>

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxk.pdf>

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/apxlinstructions.pdf>

There are many other useful resources available on these sites and others. You are not limited to these included in this document, nor are you required to use all of the resources provided within this document.

Remember as you move forward, take a step-wise approach, build your programs based on your facility's needs, priorities and resources and consult others when needed.

Arkansas Quality Partners will be available to direct you to appropriate and trustworthy resources as needed.

For more information, please contact:

qualitypartners@arhealthcare.com

1401 W. Capitol Avenue, Suite 180, Little Rock, AR 72201

Phone 501-374-4422 | Fax 501-374-1077

Antibiotic Stewardship Policy

Effective: (date)

Review Responsibility: (by role)

Review/Revision: (dates)

Centers for Medicare and Medicaid Services (CMS) Requirement

Long-term care facilities must develop an Infection Prevention and Control Program (IPCP) that includes an Antibiotic Stewardship Program and designate at least one Infection Preventionist (IP). Antibiotic stewardship programs should include antibiotic use protocols and systems for monitoring antibiotic use. (x 483.80)

Policy Statement

The policy establishes directives for antimicrobial stewardship at (insert facility name) in order to develop *antibiotic use protocols and a system to monitor antibiotic use.*

Governance of Antimicrobial Stewardship

As part of the Infection Prevention and Control Program (IPCP), (insert facility name) has established a committee to oversee antimicrobial stewardship functions. The Infection Preventionist (IP), who is responsible for the overall IPCP, is an integral part of this committee. The Antibiotic Stewardship Committee will meet at least quarterly and review this policy annually and as needed.

Composition

1. An Antibiotic Stewardship Committee has been established and is composed of the following personnel: (should include at least 2 staff members; adjust as needed to suit your facility)
 - a. Infection Preventionist (*required November 2019*)
 - b. Director or Assistant Director of Nursing
 - c. Medical Director or a designated physician (*required*)
 - d. Consulting and/or Dispensing Pharmacist (*required*)
 - e. Administrator
 - f. Attending Physician or Nurse Practitioner or Physician Assistant
 - g. Nurse
 - h. Nurse Aide
 - i. Allied Health Professional
 - j. Representative from the Resident and Family Council
2. The IP will incorporate antibiotic stewardship into their current activities and will allocate time specifically for antimicrobial stewardship activities. The IP's primary professional training is in nursing, medical technology, microbiology, or epidemiology, or other related field. The IP is qualified by education, training, experience or certification and, by November 28th 2019, will have completed specialized training in infection prevention and control. The IP works at the facility full-time/part-time.
3. The Director of Nursing, Medical Director and Administrator for (insert facility name) are responsible for ensuring that adequate staffing and resources are allocated to support the functions and efforts of the IP and the Antibiotic Stewardship Committee. The determinations for adequate staffing and resources will be informed by the facility assessment used to establish and update the IPCP. (483.70(e))

Procedures

A. *The Antibiotic Stewardship Committee will:*

1. Support and promote antibiotic use protocols which include:
 - a. Assessment of residents for infection using standardized tools and criteria. The criteria used by this facility are (adapted from the Loeb Minimum Criteria, the revised McGeer Criteria or specify written protocol detailing criteria developed by the facility).

- b. Therapeutic decisions regarding antibiotic prescriptions based on evidence (eg, guidelines and consensus statements from clinical and academic societies) that is appropriate for the care of long-term care facility residents.
 - c. Specifying a dose, duration and indication on all antibiotic prescriptions.
 - d. Reassessment of empiric antibiotics after 2-3 days for appropriateness and necessity, factoring in results of diagnostic tests, laboratory reports and/or changes in the clinical status of the resident.
 - e. Whenever possible, choosing narrow-spectrum antibiotics that are appropriate for the condition being treated.
2. Develop and maintain a system to monitor antibiotic use, which includes:
 - a. Review antibiotics prescribed to residents upon their admission or transfer to the facility and those during the course of evaluation by a prescribing practitioner who is not part of the facility's staff (eg, emergency department provider, specialty provider).
 - b. Periodically (quarterly) review a subset of antibiotic prescriptions for inclusion of dose, duration and indication (or for length of therapy, documentation of an antibiotic time-out, appropriateness based on antibiotic use protocols and written documentation of clinical justification for antibiotic use that does not comply with the facility antibiotic use protocols). Periodically review rates of prescriptions for any antibiotics or conditions identified by the committee as being of special interest.
 - c. At least annually, review antibiotic use data by the facility and by individual providers to determine if there is excessive use of specific antimicrobial agents. The assessment will measure antibiotic starts (antibiotic days of therapy, defined daily doses of antibiotics) per 1000 resident days of care (and/or length of therapy). If excessive use or other conditions are identified, the facility will take actions to address these problems.
 - d. At least annually, provide feedback on the facility's antibiotic use data in the form of a written report shared with administration, medical and nursing staff, allied health professionals, the resident and family council and the Quality Assessment and Assurance (QAA) committee. The reports will include recommendations from the Antibiotic Stewardship Committee regarding facility-level antibiotic use practices.
 - e. At least annually, provide feedback on each provider's antibiotic use data in the form for a written report shared with the provider. The provider must acknowledge the report in writing.
 3. Develop and maintain a system to monitor resistance data, which will:
 - a. At least annually, review surveillance data pertaining to microorganisms related to antibiotic use (eg, methicillinresistant *Staphylococcus aureus* carbapenemase-resistant *Enterobacteriaceae* spp. (CRE) or *Clostridium difficile*).
 - b. At least annually, provide feedback to the Quality Assurance committee on surveillance data pertaining to on surveillance data pertaining to microorganisms related to antibiotic use in the form of a written report.
 4. Provide education on antibiotic stewardship, which will:
 - a. At least annually, provide education on antibiotic stewardship and on the facility's antibiotic use protocols to prescribing practitioners, medical and nursing staff. The mode (eg, written, verbal, online) and frequency of the education shall be documented.
 - b. Support the development or selection of educational materials about antibiotic stewardship and support dissemination of these materials to residents, their family members and friends and the resident and family council.
 5. Serve as a resource and support for the IP, the consultant or dispensing pharmacist and other medical and nursing staff around antibiotic stewardship activities, including education and identifying opportunities for improvement relevant to antibiotic stewardship
 6. Meet at least quarterly to:
 - a. Review general activities related to antibiotic stewardship, antibiotic use data and other data or materials shared by committee members, representatives from the ICPC or from administration, medical and nursing staff, allied health professionals or the resident and family council.
 - b. Identify opportunities for improvement relevant to antibiotic stewardship and develop actions plans to make those improvements.
 - c. Review progress on action plans.

B. The Medical Director or designated physician will:

1. Serve as the primary medical point of contact for the Antibiotic Stewardship Committee and serve as liaison between the Committee and the other medical staff members
2. Assist in development of policies, procedures and protocols related to antibiotic stewardship and facility-specific antibiotic use protocols for the management of common infections.
3. At least annually, review this antibiotic stewardship policy and antibiotic use protocols and make recommendations for changes to the Antibiotic Stewardship Committee based on current clinical practice guidelines and other relevant, current clinical evidence.
4. Play an active role in planning, developing or arranging antibiotic stewardship related educational activities for prescribing practitioners, nursing staff, residents and families.
5. Play an active role in providing individualized feedback to prescribing practitioners, including their compliance with facility antibiotic use protocols.

C. The Consulting and/or Dispensing Pharmacist will review antibiotics prescribed to residents during their monthly medication review, considering both ongoing and completed courses. The Consulting and/or Dispensing Pharmacist will also make recommendations to the Antibiotic Stewardship Committee based on the review.

References

Agency for Healthcare Research and Quality. Nursing Home Antimicrobial Stewardship Guide. Rockville MD. Available at <https://www.ahrq.gov/nhguide/index.html>

CDC. The Core Elements of Antibiotic Stewardship for Nursing Homes. Atlanta GA. US Department of Health and Human Services, CDC; 2015: Available at <http://www.cdc.gov/longtermcare/index.html>

J AM Med Dir Assoc. 2017 Nov 1; 18(11);913-920. Doi: 10. 1016/j.jamda.2017.07.018.Epub 2017 Sep 19

Minnesota Department of Health. Minnesota Antimicrobial Stewardship Toolkit for Long-Term Care Facilities. St. Paul MN. Available at <http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/asp/ltc/index.html>

Loeb M, 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;22:120e124.

Monette, J., Miller, M.A., Monette, M., et al. Effect of an Educational Intervention on Optimizing Antibiotic Prescribing in Long Term Care facilities. J AM Geriatr Soc. 2007 Aug 55(8): 1231-5. PMID: 17661962.

Stone ND, Ashraf MS, Calder J, et al. Surveillance Definitions of Infections in Long-term Care Facilities: Revisiting the McGeer criteria. Infect Control Hosp Epidemiol 2012;33:965e977.

