**Antibiotic Stewardship**

**Policy and Procedure**

**Antibiotic Stewardship Policy**

Policy

It is the policy of this facility to establish and implement an antibiotic stewardship program that includes antibiotic use protocols and a system to monitor antibiotic use. The Antibiotic Stewardship Program will be incorporated in the overall infection prevention and control program and reviewed on an annual basis and as needed.

The antibiotic stewardship program will contain a system of reports related to monitoring antibiotic usage and resistance data, include monitoring of antibiotic use, assess residents for infection using standardized criteria, include evidence of annual education on the facility’s antibiotic use protocols for prescribing practitioners and nursing staff and requires antibiotic orders to include the indication, dose and duration.

**Objective of the Antibiotic Stewardship Policy**

The facility will develop an Antibiotic Stewardship Program that promotes appropriate use of antibiotics for quality of care, successful resident outcomes and reduction of potential adverse consequences related to antibiotic use. A collaborative effort between the resident/resident representative, interdisciplinary team, practitioners, Medical Director, pharmacist and leadership team is essential for success of the Antibiotic Stewardship Program.

The facility practices the Core Elements of Antibiotic Stewardship, outlined by the Centers for Disease Control and Prevention to “optimize the treatment of infections while reducing the adverse events associated with antibiotic use” to include:

* Leadership Commitment
* Accountability
* Drug Expertise
* Action
* Tracking
* Reporting
* Education

**DEFINITIONS**

“**Antibiotic”:** refers to a medication used to treat bacterial infections. They are not effective for infections caused by viruses (e.g., influenza or most cases of bronchitis)1.

**“Antibiogram”:** “An antibiogram is a report that displays the organisms present in clinical specimens that nursing homes send for laboratory testing—aggregated across all residents for a certain time period—along with the susceptibility of each organism to various antibiotics. Referring to an antibiogram report enables prescribing clinicians to make prompt, empirically based decisions.”2

“**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. This can be accomplished through improving antibiotic prescribing, administration, and management practices thus reducing inappropriate use to ensure that residents receive the right antibiotic for the right indication, dose, and duration.”1

 **“*Clostridioides difficile* (also known as *C. diff* or *C. difficile*)”:** is a germ (bacterium) that causes severe diarrhea and colitis (an inflammation of the colon).”3

“**Colonization”** refers to the presence of microorganisms on or within body sites without detectable host immune response, cellular damage, or clinical expression.”1

“**Methicillin-resistant Staphylococcus aureus (MRSA)** (a.k.a. Oxacillin-resistant Staphylococcus aureus)” refers to Staphylococcus aureus bacteria that are resistant to treatment with one of the semi-synthetic penicillins (e.g., Oxacillin/Nafcillin/Methicillin).”1

“**Multidrug-Resistant Organisms (MDROs)”** refer to microorganisms, predominantly bacteria, that are resistant to one or more classes of antimicrobial agents. Although the names of certain MDROs describe resistance to only one agent, these pathogens are frequently resistant to most available antimicrobial agents.”1

“**Vancomycin resistant enterococcus (VRE)”** refers to a species of enterococcus which have developed resistance to the antibiotic, vancomycin.”1

Procedure

1. When the nurse suspects that the resident has an infection, the nurse will perform an evaluation of the resident that includes:
2. Resident signs and symptoms
	1. Complete set of vital signs
	2. Interview of resident for symptoms
	3. Assessment
3. The Nurse will utilize the ***(Insert******facility identified/approved tools: i.e., Loeb Minimum Criteria, McGeer Constitutional Criteria, AHRQ-UTI SBAR, etc.****)* infection criteria protocol to determine if it is necessary to treat with antibiotics or if adjustments in therapy need to be made.
4. Notify physician/practitioner of resident change of condition and evaluation information. The nurse to communicate to physician of infection criteria protocol to treat the respective infection.
5. When diagnostics are ordered by the practitioner, the nurse will contact the lab/radiology to notify of physician order.
	1. Physician will be notified of results of diagnostics to ensure resident is taking the appropriate antibiotic or to determine if antibiotic needs to be discontinued or changed.
6. If indicated, based upon (identified) criteria, an antibiotic is ordered, the practitioner will identify the diagnosis/indication, the appropriate antibiotic, proper dose, duration and route.
	1. In the event that the prescribing physician orders an antibiotic without identification of infection criteria, the physician will be requested to identify rationale for ordered antibiotic.
		1. The Medical Director will be contacted for further direction in the event that rationale is not consistent with the facility antibiotic stewardship policy.
7. If the resident was admitted to the facility with an antibiotic ordered, the nurse is to identify physician’s orders for:
	1. Indication for use (diagnosis, lab/radiology results, symptoms, etc.)
	2. Documentation for dose, route and duration (ensuring stop date)
		1. Documentation of clinical justification for use of the antibiotic beyond the initial duration
8. The nurse will observe and document effectiveness of antibiotic, side effects and potential adverse consequences.
	1. Resident evaluation, vital signs and observations for symptoms will be identified and documented
	2. Resident will be evaluated for signs/symptoms of C. *difficile* infection
	3. Resident will be observed for potential side effects of the antibiotic
9. The antibiotic will be discontinued when no longer necessary
10. The pharmacy consultant will review the antibiotic use for each resident on the Medication Regimen Review.
11. The Infection Preventionist will track antibiotic use and monitor adherence to evidence-based criteria, including:
12. Documentation related to antibiotic selection and use
13. Tracking antibiotics used to review patterns of use and determination of the impact of the antibiotic stewardship interventions
14. Monitoring for clinical outcomes such as rates of *C. difficile* infections, antibiotic-resistant organisms or adverse drug events
15. Reporting of communicable disease per State Law ***(insert State requirements)***
16. Assist prescribing practitioners in choosing the right antibiotic using antibiograms (Recommend using AHRQ Toolkit:<https://www.ahrq.gov/nhguide/toolkits/help-clinicians-choose-the-right-antibiotic/index.html> **)**
17. Provide reports related to monitoring antibiotic usage and resistance data to the QAA committee
18. Education: The Infection Preventionist or designee will provide written, live or virtual education to the nursing staff and prescribing practitioners on the facility’s antibiotic stewardship policy and procedure annually and with changes/updates to the facility policy and procedure. Signature evidence of attendance will be obtained when education is complete.
19. During the quarterly QAA Committee Meeting, The Pharmacist, Medical Director, Infection Preventionist and IDT will analyze the antibiotic use in the facility to collaborate with nursing and clinical leaders for identification of potential QAPI process action plan related to analysis of the tracking and trending of data for quality outcomes.

**References**

* 1Centers for Medicare & Medicaid Services State Operations Manual, Appendix PP – Guidance to Surveyors for Long Term Care Facilities (Rev. 173, 11-22-17) Advance Copy, 2022: <https://www.cms.gov/files/document/appendix-pp-guidance-surveyor-long-term-care-facilities.pdf>
* 2Toolkit 3. The Nursing Home Antibiogram Program Toolkit: How to Develop and Implement an Antibiogram Program. Content last reviewed November 2016. Agency for Healthcare Research and Quality, Rockville, MD. <https://www.ahrq.gov/nhguide/toolkits/help-clinicians-choose-the-right-antibiotic/toolkit3-develop-implement-antibiogram-program.html>
* 3Centers for Disease Control and Prevention. *C. diff* (*Clostridioides difficile*). What is C. *diff*?”: <https://www.cdc.gov/cdiff/what-is.html>

Centers for Disease Control and Prevention. Core Elements of Antibiotic Stewardship for Nursing Homes. August 20, 2021: <https://www.cdc.gov/antibiotic-use/core-elements/nursing-homes.html>

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

Centers for Disease Control and Prevention. Antibiotic Resistance t\Threats in the United States, 2019: <https://www.cdc.gov/drugresistance/pdf/threats-report/2019-ar-threats-report-508.pdf>

Spellberg, B., Bartlett, J.G., & Gilbert, D. N. (January 24, 2013). The future of antibiotics and resistance. The New England Journal of Medicine, 368, 299-302.

**Additional Helpful Resources for the Infection Preventionist:**

Centers for Disease Control and Prevention. National Healthcare Safety Network (NHSN). MDRO & CDI: <https://www.cdc.gov/nhsn/ltc/cdiff-mrsa/index.html>

Minnesota Department of Health. 72-Hour Antibiotic Time-Out Sample Template: <https://www.health.state.mn.us/diseases/antibioticresistance/hcp/asp/ltc/abxtimeout.pdf>

Minnesota Department of Health. Minnesota Antimicrobial Stewardship Program Toolkit for Long-Term Care Facilities: <https://www.health.state.mn.us/diseases/antibioticresistance/hcp/asp/ltc/index.htm>