**TOPIC AREA**

Antibiotic Stewardship  Infection Control Surveillance  Vaccination/Immunization

Environmental Hygiene  Staff Infection Exposure Prevention  Sepsis

Hand Hygiene  Testing/Screening, Cohorting Residents

Isolation Precautions  Visitors Restriction Infection Prevention

**Conduct Root Cause Analyses for Each Identified Gap or Opportunity:**

* Determine contributing factors, events, system issues and processes involved
* Utilize RCA tools as appropriate (e.g., 5 Whys, Fishbone, Cause & Effect Diagram)
* Conduct a Plan-Do-Study-Act (PDSA) to test intervention, review results and adjust actions as needed

**Identify Infection Prevention and Control Gaps & Areas of Opportunity:**

* [CDC Infection Control Assessment and Response (ICAR) Tool for General Infection Prevention and Control (IPC) Across Settings](https://www.cdc.gov/hai/prevent/infection-control-assessment-tools.html)
* Review previous survey findings, federal and state regulations and CDC updates for long-term care facilities
* Check [CMS Quality Safety & Oversight (QSO) memos](https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Policy-and-Memos-to-States-and-Regions)

The sample RCA, actions, interventions, best practices and metrics illustrated here to address identified infection prevention areas of opportunity are solely intended as example guidance. Your team should perform an infection prevention gap analysis/risk assessment and build a customized action plan to best meet the needs of your specific organization and community.

|  |
| --- |
| **Area of Opportunity:** |
| Antibiotics are being prescribed when criteria for antibiotic use not met, especially for UTI |
| **Root Cause Analysis** **(specify each root cause and address each within the action plan):** |
| 1. Prescribers use different antibiotic prescribing criteria than what the facility uses |
| 1. Antibiotic use criteria and SBARs not readily or conspicuously available to staff |
| 1. Newly hired nurses not receiving training on antibiotic use criteria before working independently on units |
| **S.M.A.R.T. Goal: (Specific, Measurable, Achievable, Relevant, Time-based)** |
| Achieve 95% compliance with facility-initiated antibiotic treatment courses that are guideline-concordant by [SPECIFIC DATE] |

| **Project Start Date** | **Specific Actions and Interventions**  **\****HQIN IP Intervention Resources (optional)* | **Projected Completion Date** | **Person/Team Responsible**  *\*To include QAPI Committee* | **Ongoing Monitoring and Surveillance** | **Additional Comments** |
| --- | --- | --- | --- | --- | --- |
|  | * Review antibiotic stewardship policies and procedures and update if needed |  | Administrator, Director of Nursing, Infection Preventionist, Medical Director | Infection Preventionist to check CDC and CMS guidance as well as state and local health department updates related to antibiotic stewardship quarterly | **Ensure P&Ps are evidence-based (e.g., CDC Core Elements, AHRQ, APIC).**   * [Core Elements of](https://www.cdc.gov/antibiotic-use/core-elements/index.html) Antibiotic Stewardship (CDC) * [Antibiotic Stewardship Program Resources for Nursing Homes | CMS](https://qsep.cms.gov/data/251/AntibioticStewardshipProgramResourcesCMS508.pdf) * [Nursing Home Antimicrobial Stewardship Guide (AHRQ)](https://www.ahrq.gov/nhguide/index.html) * [Implementing an Antibiotic Stewardship Program: Guidelines by Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America](https://www.idsociety.org/practice-guideline/implementing-an-ASP/) * [Toolkit To Improve Antibiotic Use in Long-Term Care (AHRQ)](https://www.ahrq.gov/antibiotic-use/long-term-care/index.html) |
|  | * Develop tools to monitor, track/trend compliance and clinical outcomes |  | Administrator, Director of Nursing, Infection Preventionist |  | * Notify a Health Quality Innovators (HQI) Quality Improvement Advisor (QIA) if auditing and monitoring tools are needed |
|  | * Audit compliance of facility-initiated antibiotic use meeting guideline criteria |  | Director of Nursing, Infection Preventionist | Monitor % of time antibiotic use met criteria and identify clinical staff NOT applying guidelines – set thresholds for improvement |  |
|  | * Audit tracking of clinical outcomes related to antibiotic use (CDI/MDRO/adverse events) |  | Director of Nursing, Infection Preventionist | Monitor % reduction in infections, outbreaks, ADEs – set thresholds for improvement |  |
|  | * Determine baseline compliance rates for facility-initiated antibiotic use |  | QAPI Team |  |  |
|  | * Educate clinicians about resistance and optimal prescribing related to antibiotic stewardship |  | Director of Nursing, Infection Preventionist, Medical Director, Staff Development, Consultant Pharmacist | Ensure 100% clinical staff trained | * [Antibiotic Prescribing and Use](https://www.cdc.gov/antibiotic-use/healthcare/index.html) (CDC) |
|  | * Educate residents and families about antibiotic resistance and appropriate use of antibiotics |  | Director of Nursing, Infection Preventionist, Medical Director, Staff Development | Monitor % of residents and families provided education on admission and annually | * [Be Antibiotics Aware Campaign](https://www.cdc.gov/antibiotic-use/week/index.html) (CDC) |
|  | * Re-educate nursing staff formally and with 1:1 coaching regarding UTIs using evidence-based resources (i.e., McGeer’s Criteria, Loeb Criteria, NHSN, etc.), including information needed by the prescriber to make an informed decision, and how to use SBAR when communicating with prescribers and during resident transfers * Conduct competency training and testing annually |  | Director of Nursing, Infection Preventionist, Medical Director, Staff Development | Ensure 100% nursing staff trained annually | * [AHRQ Suspected UTI SBAR](https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/4_TK1_T1-SBAR_UTI_Final.pdf) * [Inter-Facility Infection Control Transfer Form for States Establishing HAI Prevention Collaboratives (CDC)](https://www.cdc.gov/hai/pdfs/toolkits/Interfacility-IC-Transfer-Form-508.pdf) * [Nursing Home Infection Preventionist Training Course; Modules](https://www.train.org/cdctrain/training_plan/3814) 14 & 15 (CDC) * [Targeted COVID-19 Training for](https://qsep.cms.gov/welcome.aspx) Nursing Homes [Note: This training requires logging in to the Quality, Safety & Education Portal (QSEP)] * [All Cause Harm Prevention in Nursing Homes Change Package | QIO Program](https://qioprogram.org/sites/default/files/2022-10/All%20Cause%20Harm%20Change%20Package_20181226_FNL_508_0.pdf) |
|  | * Utilize SBAR and review antibiotic orders and use for appropriateness, consult with physician/clinician and/or pharmacist as needed |  | Director of Nursing, Infection Preventionist, Nursing Team, Consultant Pharmacist |  | * [Suspected UTI SBAR](https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/4_TK1_T1-SBAR_UTI_Final.pdf) (AHRQ) |
|  | * Develop antibiotic formulary based on facility antibiogram |  | Director of Nursing, Infection Preventionist, Medical Director, Lab Rep, Consultant Pharmacist, Health Dept. |  | * [Nursing Home Antibiogram Program Toolkit: How To Develop and Implement an Antibiogram Program (AHRQ)](https://www.ahrq.gov/nhguide/toolkits/help-clinicians-choose-the-right-antibiotic/toolkit3-develop-implement-antibiogram-program.html) |
|  | * Work with EHR vendor to embed antibiotic prescribing criteria and SBARs |  | Administrator, Director of Nursing, Infection Preventionist |  |  |
|  | * Share antibiotic stewardship “progress to goal” metrics with nursing home staff |  | QAPI Team | Ongoing |  |
|  | * Report findings and compliance at monthly/quarterly QAPI meeting and/or regular antibiotic stewardship meeting |  | QAPI Team |  | * [QAPI At a Glance: A Step by Step Guide to Implementing Quality Assurance and Performance Improvement (QAPI) in Your Nursing Home](https://www.cms.gov/medicare/provider-enrollment-and-certification/qapi/downloads/qapiataglance.pdf) |

This material was prepared by Health Quality Innovators (HQI), a Quality Innovation Network-Quality Improvement Organization (QIN-QIO) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this document do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. 12SOW/HQI/QIN-QIO-0004-06/21/21