**Topic Area: URINARY TRACT INFECTION**

*Visit the* [*HQIN Resource Center*](https://hqin.org/resource/action-plan-templates/) *to access additional action plan templates on topics including infection control, vaccination and hand hygiene.*

**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 Worksheet](https://hqin.org/resource/five-whys-worksheet/), [QAPI Fishbone Diagram](https://hqin.org/resource/qapi-fishbone-diagram/), Cause & Effect Diagram)
* Conduct a [Plan-Do-Study-Act (PDSA)](https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fhqin.org%2Fwp-content%2Fuploads%2F2021%2F03%2FPDSA-Worksheet-508.pdf&data=05%7C01%7Clfinch%40hqi.solutions%7C62686d1b484f4cbb5aee08dbf123fc86%7Cd2798d0f9fe24eacbdf166c9890342c9%7C0%7C0%7C638368909098562408%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=9PuwxE9Onb6eeea7k3%2F1l1pedMpNVeGv7F04o%2F7XkTM%3D&reserved=0) to test intervention, review results and adjust actions needed

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

* [CDC’s 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.

**1**

|  |
| --- |
| **Area of Opportunity**  |
| **EXAMPLE:** Facility has noted an increase in UTIs and will implement this plan to mitigate the trend  |
| **Root Cause Analysis** **(specify each root cause and address each within the action plan) -*See examples below-***  |
| 1. Providers/staff use criteria other than NHSN or McGeer Criteria to diagnose UTIs
 |
| 1. Staff collect UA or urine cultures on residents without symptoms of infection
 |
| 1. Staff is not provided training on appropriate collection of UA and urine culture
 |
| 1. Staff is not provided training on UTI prevention
 |
| **S.M.A.R.T. Goal: (Specific, Measurable, Achievable, Relevant, Time-based) -*See examples below-***  |
| **EXAMPLE:** Include *by [SPECIFIC DATE]* |
| Achieve 100% compliance with utilization of evidence-based criteria |
| 100% of clinical staff trained on appropriate collection of UA and/or urine cultures |
| Staff will demonstrate a 90% compliance rate in peri-care auditing  |
| UTI infection rate will decrease by 30% (adjust goal for continued/sustained improvement) |
| The facility will record I & O for 100% of high-risk residents each shift |

**2**

| **Project Start/Complete Date** | **Specific Actions & Interventions** | **Person/Team Responsible***\*Include QAPI Committee* | **Ongoing Monitoring & Surveillance** | **Resources & Additional Comments** |
| --- | --- | --- | --- | --- |
|  | * Establish policies and procedures for infection prevention and surveillance related to urinary tract infections
 | Administrator, Director of Nursing, Infection Preventionist, Medical Director | Review policies annually at a minimum | * [Catheter-associated Urinary Tract Infections (CAUTI) | HAI | CDC](https://www.cdc.gov/hai/ca_uti/uti.html) [definition and guidance related to the prevention of catheter-associated urinary tract infections (UTIs)]
 |
|   | * Use surveillance tracking tools to identify urinary tract infection and monitor trends
* Audit peri care performance as a preventive measure
* Implement decision-making tools
* Review data for urine culture and antibiotic rates

**3****3** | Director of Nursing, Infection Preventionist | Review findings in monthly QAPI meeting | * [Indwelling-Catheter Audit Tracking Tool | HQIN](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fhqin.org%2Fwp-content%2Fuploads%2F2023%2F04%2FHQIN-Indwelling-Cath-Audit-Tracking-Tool-Editable.xlsx&wdOrigin=BROWSELINK) (customizable Excel spreadsheet)
* [Revised McGeer Criteria for Infection Surveillance Checklist | HQIN](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fasap.nebraskamed.com%2Fwp-content%2Fuploads%2Fsites%2F3%2F2017%2F07%2FRevised-McGeer-criteria-for-infection-surveillance-checklist.docx&wdOrigin=BROWSELINK) (surveillance checklist with/without indwelling catheter)
* [Peri Care Audit Tool | HQIN](https://hqin.org/wp-content/uploads/2020/08/Peri-Care-Audit-Tool_508.pdf) (auditing checklist)
* [INTERACT Guidance on Identification and Management of Infections](https://pathway-interact.com/wp-content/uploads/2021/08/43-INTERACT-Guidance-on-Infections-2021.pdf) (see UTI criteria)
* [Urinary Tract Infection Surveillance Pocket Card | HQIN](https://hqin.org/wp-content/uploads/2022/12/Urinary-Tract-Infection-Surveillance-Three-Card.pdf) (pocket card reference of surveillance guidance R/T UTI)
* [Surveillance Definitions of Infections in Long-Term Care Facilities: Revisiting the McGeer Criteria](https://www.jstor.org/stable/pdf/10.1086/667743.pdf?refreqid=fastly-default%3Aa59bb21b640ae9de48652d0da21d58a1&amp;ab_segments=&amp;origin=&amp;initiator=&amp;acceptTC=1) (extensive list of definitions – see page 969 for urinary tract infection)
 |
|  | * Provide education to all nursing staff on UTI prevention and UTI signs and symptoms

**4** | Director of Nursing, Staff Nurse, Infection Preventionist | Ensure 100% clinical staff trained | * [Frequently Asked Questions about Catheter-associated Urinary Tract Infections | HAI | CDC](https://www.cdc.gov/HAI/ca_uti/cauti_faqs.html) (expert resource on urinary catheters and urinary tract infections)
* [CAUTI Prevention Pocket Card | HQIN](https://hqin.org/wp-content/uploads/2022/12/CAUTI-Prevention-Three-Card.pdf) (pocket card for UTI prevention)
* [Suspected Urinary Tract Infection (UTI) in Long-Term Care Residents |AHRQ](https://www.ahrq.gov/sites/default/files/wysiwyg/antibiotic-use/long-term-care/poster-4x6-UTI.pdf) (pocket card from the Agency for Healthcare Research and Quality)
* [Head to Toe Infection Prevention Handbook | CMPRP](https://www.cms.gov/files/zip/head-toe-infection-prevention-toolkit.zip) (instructional booklet on preventing infection by maintaining mouth, skin and urinary health)
* [Assessment and Management of the Resident With a Suspected Urinary Tract Infection | AHRQ](https://www.ahrq.gov/antibiotic-use/long-term-care/best-practices/uti-assess.html) (presentation and resources on management of a resident with a suspected UTI)
* [CDC TRAIN](https://www.train.org/cdctrain/search?query=urinary%20tract%20infection) (training resources site that requires registration – see Module 10A: Indwelling Urinary Catheters)
 |
|  | * Implement tools to facilitate communication between staff and prescribing clinicians about suspected UTIs to assess the need for appropriate antibiotic prescribing
 | Administrator, Director of Nursing, Infection Preventionist, Medical Director, Staff Educator |  | * [Suspected UTI SBAR Toolkit | AHRQ](https://www.ahrq.gov/nhguide/toolkits/determine-whether-to-treat/toolkit1-suspected-uti-sbar.html)
 |
|  | Provide education to residents and family members about:* Asymptomatic bacteriuria
* Recognition that antibiotics are overused
* Consequences of unnecessary/overuse of antibiotics
* True signs and symptoms of a UTI
 | Director of Nursing, Infection Preventionist |  | * [Talking With Residents and Family Members About Urinary Tract Infections (UTIs) | AHRQ](https://www.ahrq.gov/sites/default/files/wysiwyg/antibiotic-use/long-term-care/family-members-UTI.pdf) (one-page script for conversations about UTIs)
 |
|  | * Identify residents that have a higher risk for developing UTIs and establish a plan to track/monitor their status
 | Unit Managers, Director of Nursing, Assistant Director of Nursing, Infection Preventionist |  | * [Urinary Tract Infection | Antibiotic Use | CDC](https://www.cdc.gov/antibiotic-use/uti.html) (information from experts about UTI risks and symptoms)
 |
|  | * Obtain urinalysis and urine culture using evidence-based decision making as needed

**5** | Staff Nurse, Infection Preventionist | Monitor % of time UA and/or urine culture collection based on criteria Monitor % reduction of asymptomatic UTIs; Set threshold for improvement | * [Urine Culture Diagnostic Stewardship | HQIN](https://hqin.org/wp-content/uploads/2024/04/Urine-Culture-Diagnostic-Stewardship.pdf) (one-page resource to assist with urine culture orders for optimizing outcomes)
* [The Culture of Culturing—The Importance of Knowing When To Order Urine Cultures | AHRQ](https://www.ahrq.gov/hai/quality/tools/cauti-ltc/modules/implementation/education-bundles/urine-culturing/when-to-order/cultures-slides.html) (emphasizes the importance of knowing when to collect urine cultures)
* [Strategize Initiatives | Urine Culture Stewardship | HAI | CDC](https://www.cdc.gov/hai/prevent/cauti/indwelling/strategize.html) (expert resource on implementing consistent approach to obtaining urine cultures)
 |
|  | * Review medical records and 24-hour report for high-risk residents to determine if infection surveillance monitoring documentation is complete
* Identify if there are any signs and symptoms noted in reports from each shift
* Hold daily standup meetings to discuss residents with signs/symptoms of infection or any changes in baseline

**6** | Staff Nurse, Infection Preventionist, Medical Director | Assess residents and review medical records as soon as possible after onset of symptomsUse UTI SBAR tools to give report | * [INTERACT Care Path Symptoms of Urinary Tract Infection](https://pathway-interact.com/wp-content/uploads/2018/09/INTERACT-Care_Path_UTI_v4.0-June-2018.pdf) (pathway for identifying UTI in residents with an indwelling catheter)
* [Suspected UTI SBAR | AHRQ](https://www.ahrq.gov/sites/default/files/wysiwyg/nhguide/4_TK1_T1-SBAR_UTI_Final.pdf) (checklist for determining presence of UTI)
 |
| **7** | * Utilize evidence-based definitions for UTI
 | Director of Nursing, Staff Nurse, Infection Preventionist, Medical Director | Ensure 100% of clinical staff is trained | * [Urinary Tract Infection Events | CDC](https://www.cdc.gov/nhsn/pdfs/pscmanual/7psccauticurrent.pdf) (NHSN definitions for indwelling catheter and non-catheter associated UTI)
* [INTERACT Guidance on Identification and Management of Infections](https://pathway-interact.com/wp-content/uploads/2021/08/43-INTERACT-Guidance-on-Infections-2021.pdf) (identification and management of infections)
 |
|  | * Review MDS assessments for accurate coding of UTI preferably prior to submission – if after, complete modifications on any inaccurately coded MDS
 | Director of Nursing, MDS Director | Monthly | **Resources to ensure accurate coding:*** [UTI MDS Coding Guidelines | HQIN](https://hqin.org/resource/uti-mds-coding-guidelines/)
* [Think 2 for UTIs | HQIN](https://hqin.org/wp-content/uploads/2020/09/Think-2-for-UTIs-508.pdf)
* [Minimum Data Set 3.0 Resident Assessment Instrument User’s Manual v1.18.11 | CMS](https://www.cms.gov/files/document/finalmds-30-rai-manual-v11811october2023.pdf)
* [Quality Measure Tip Sheet - Urinary Tract Infections | HQIN](https://hqin.org/resource/quality-measure-tip-sheet-urinary-tract-infections/)
 |
|  | * QAPI meetings
 |  |  | **Tools to assist with implementing and maintaining a QAPI program:*** [QAPI Meeting Agenda Guide | HQIN](https://hqin.org/wp-content/uploads/2023/02/QAPI-Meeting-Agenda-Guide.pdf)
* [Fishbone Diagram | HQIN](https://hqin.org/wp-content/uploads/2021/05/HQIN-Fishbone-Diagram_508-1.pdf)
* [QAPI: Everyone has a role and responsibility | HQIN](https://hqin.org/wp-content/uploads/2020/08/08.25.2020-HQIN_IP-QAPI-PPT_final_508.pdf)
 |
|  | * Download and distribute recommended resources from the [Health Quality Innovation Network Resource Center](https://hqin.org/resources/) (Copy and paste resource titles in the search bar at the top right side of the page)
 |  |  | **Additional resources to support infection prevention efforts:*** [UTI in the Long-Term Care Setting: for residents, guests, families and visitors](https://hqin.org/wp-content/uploads/2023/09/Is-It-a-UTI.pdf)
* [Antimicrobial Stewardship Program Pocket Card](https://hqin.org/wp-content/uploads/2022/12/Antimicrobial-Stewardship-Program-Three-Card.pdf)
* [Normal Flora and Healthcare Associated Infections Infosheet](https://hqin.org/wp-content/uploads/2022/12/Normal-Flora-and-HAI-Infosheet.pdf)
* [Normal Flora: Beneficial and Harmful Pocket Card](https://hqin.org/wp-content/uploads/2022/12/Normal-Flora-Three-Card.pdf)
* [Urinary Tract Infection Quality Measure Tip Sheet](https://hqin.org/wp-content/uploads/2020/06/UTI-Quality-Measure-Sheet-508.pdf)
 |

**8**

**8**

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 material 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-0776-04/23/24