

Infection Prevention Back to Basics: Multi-Drug Resistant Organisms (MDROs)

Thank you for registering for and/or attending the [HQIC Webinar](#) (Link)! Subject Matter Experts Jamie Zapata and Rosie Bartel shared strategies for getting “back to basics” when it comes to preventing Multi-Drug Resistant Organisms (MDROs), particularly hospital onset Clostridium Difficile (C. diff) and Methicillin-Resistant Staphylococcus Aureus (MRSA) bacteremia as well as discussed methods for integrating the patient voice into infection prevention.

Now, it is time to act!

Why Now

Over the last two years, progress toward eliminating Healthcare Associated Infections (HAIs) has been impacted by the COVID-19 pandemic. MDROs remain a significant risk to patient safety. According to the Centers for Disease Control and Prevention (CDC), on any given day, about 1 in 31 hospitalized patients has an HAI.

Trends/Data

| HAI Type | No. of Hospitals ^a | % Change in SIR ^b | 95% CI | Preliminary 2021-Q3 | | | | 2019-Q3 | | | |
|--|-------------------------------|------------------------------|------------------|----------------------|-----------------------|--|-------|----------------------|-----------------------|--|-------|
| | | | | No. of HAIs Reported | No. of HAIs Predicted | Device/Patient Days or Procedures ^c | SIR | No. of HAIs Reported | No. of HAIs Predicted | Device/Patient Days or Procedures ^c | SIR |
| CLABSI ^e | 3,215 | 48.4 ^d | (41.6 to 55.5) | 4,741 | 4,573.59 | 4,539,805 | 1.037 | 2,761 | 3,951.77 | 3,911,645 | 0.699 |
| CAUTI ^f | 3,208 | 13.6 ^d | (8.4 to 19.1) | 4,074 | 5,087.85 | 4,325,035 | 0.801 | 2,997 | 4,251.81 | 3,592,706 | 0.705 |
| VAE ^g | 1,343 | 60.2 ^d | (54.8 to 65.8) | 11,353 | 7,097.22 | 1,036,989 | 1.600 | 4,553 | 4,559.15 | 639,187 | 0.999 |
| SSI, colon surgery ^h | 2,593 | -9.2 ^d | (-15.2 to -2.8) | 1,542 | 1,936.21 | 73,976 | 0.796 | 1,774 | 2,021.71 | 79,396 | 0.877 |
| SSI, abdominal hysterectomy ^h | 2,283 | -4.1 | (-15.5 to 8.7) | 428 | 410.90 | 58,550 | 1.042 | 559 | 514.35 | 78,020 | 1.087 |
| LabID MRSA bacteremia ⁱ | 3,272 | 45.1 ^d | (37.0 to 53.6) | 3,066 | 2,625.60 | 40,987,396 | 1.168 | 1,927 | 2,393.81 | 37,865,802 | 0.805 |
| LabID CDI ⁱ | 3,269 | -14.5 ^d | (-16.7 to -12.2) | 10,565 | 21,905.36 | 37,822,902 | 0.482 | 12,408 | 21,999.91 | 34,586,039 | 0.564 |

Source: Continued increases in the incidence of healthcare-associated infection (HAI) during the second year of the coronavirus disease 2019 (COVID-19) pandemic. | Infection Control & Hospital Epidemiology | Cambridge Corem (Link)

Consider Common Barriers and Solutions

Review common barriers identified during the webinar and brainstorm ways to mitigate challenges to implementation in your organization.

- + Competing priorities for time/resources
- + No identified hospital or unit champion
- + Lack of team communication/timely reporting
- + Infection prevention turnover/new staff/new role
- + No process for MDRO surveillance and/or hand hygiene audits
- + Outdated staff education/informal process

Perform a Root Cause Analysis

Fill in the [Fishbone Diagram](#) (PDF) to identify the causes and effects of an event and get to the root cause.

Fill in the [Plan-Do-Study-Act \(PDSA\) Worksheet](#) (PDF) to identify your goal and complete the PDSA cycle for test of change and improvement.

Craft your AIM Statement

By (date), the team at (hospital) will implement (intervention) to improve (the problem) by (how much) to benefit (for whom).

Example: By November 2022, we will form a team and begin monthly chart audits to understand variations in patient care to decrease hospital-acquired infections with a goal of obtaining and sustaining a zero rate.

Implement Changes with Leading Interventions and Best Practices

| Beginner | Intermediate | Expert |
|--|--|---|
| Identify a leader or champion and form a multidisciplinary team. | Collect and analyze prevalence and incidence data | Present business case to leadership (Link) to get buy-in |
| Conduct a risk assessment | Collaborate with environmental services to audit terminal cleans (xlsx.) | Implement teach back methodology (Link) regarding patient risk and expectations |
| Conduct a chart review of a recent C. Diff case. Identify opportunities for improvement (PDF). | Prioritize the gaps to be addressed and develop an action plan. | Conduct a failure mode effects analysis (Link) |

Incorporate Health Equity and Patient and Family Engagement

- + [Communication and Optimal Resolution \(CANDOR\)](#) (PDF) Toolkit enables health care organizations to respond immediately when a patient is harmed and to promote candid, empathetic communication and timely resolution for patients and caregivers.
- + [CDC FAQs about C. diff for patients and families](#) (PDF)
- + [CDC FAQs about MRSA for patients and families](#) (PDF)
- + [CDC Factsheets about MRSA for patients and families](#) (Link)

Seek Guidance

Not sure how to identify your organization's root cause? Need help getting started on implementing your selected intervention? Seeking feedback on your AIM statement?

Reach out to your HQIC clinical improvement consultant for assistance.

Additional Resources

+ General

- [Infection Prevention Back to Basics: Multi-Drug Resistant Organisms \(MDROs\) Presentation Slides](#) (PDF)
- [CDC MDRO Management Guidelines Library](#) (Link)
- [National Healthcare Safety Network \(NHSN\) Targeted Assessment Prevention \(TAP\) Report](#) (Link)
- [Actionable Patient Safety Solutions™](#) (Link)

+ Clostridium Difficile (C. diff)

- [CDC Clostridioides Difficile Infection \(CDI\) Facility and Unit Level Assessment Tool](#) (Link)
- [CDC STRIVE CDI Module](#) (Link)
- [Clostridium Difficile Checklist](#) (doc.)
- [TAP Facility Assessments](#) (PDF)
- [TAP CDI Implementation Guide](#) (Link)

+ Methicillin-Resistant Staphylococcus Aureus (MRSA)

- [CDC STRIVE MRSA Learning Module](#) (Link)
- [CDC MRSA Factsheets for Healthcare Personnel](#) (Link)

+ Antimicrobial Stewardship

- [Actionable Patient Safety Solutions™: Antimicrobial Stewardship Guide](#) (PDF)
- [CDC Core Elements of Antibiotic Stewardship Programs](#) (Link)
- [5 Tips to Improve Antibiotic Stewardship in Your Emergency Department](#) (Link)

This material was prepared in part by Compass, a Hospital Quality Improvement Contractor (HQIC) 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 Telligen HQIC Network/Hospital Quality Improvement Contractor – [0193] – 08/11/2022.