

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

Part 2 of the 5-part Joint HQIC *'Preventing Healthcare Associated Infections'* Learning & Action Network Series

July 28, 2022



Learning Objectives

1. Identify and prioritize at least two key MDRO related infection prevention processes to hardwire and maintain in the event of another public health emergency or COVID-19 surge.
2. Establish or augment a plan to routinely track and report MDRO infections in your facility.
3. Develop a plan to routinely educate staff, patients and families on hospital infection prevention basics.
4. Identify ways to integrate the patient voice into infection prevention improvement plans.

Today's Speaker(s)



Rosie Bartel

Patient Coordinator, University of Wisconsin School of Medicine Infectious Disease Department

Member, Aging Initiative Patient and Caregiver Advisory Council

Educator, Patient and Family Engagement



Jaime Zapata, CIC, LSSGB

Infection Prevention Specialist

Telligen

The Patient Voice in Infection Prevention

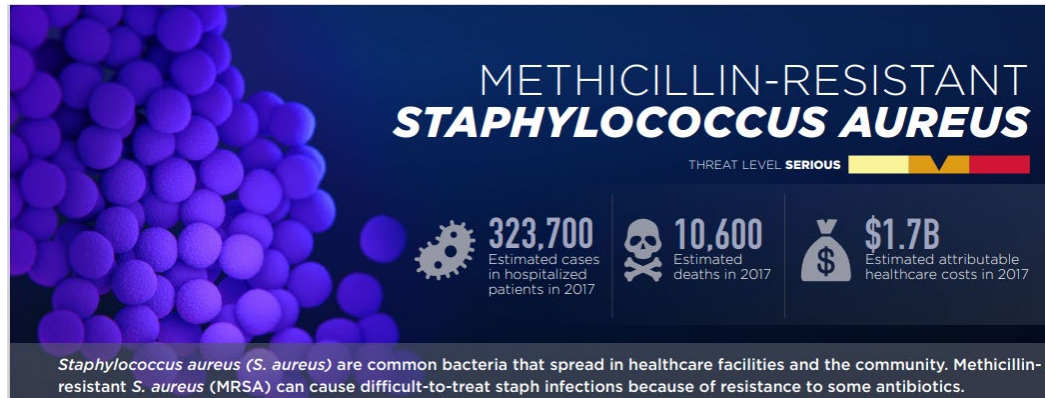
- Patient advisor for the University of Wisconsin Infectious Disease Department
- Collaborates with Bellin Health leadership, providers, healthcare staff and facilities and environmental services
- Works on hand hygiene compliance with the Department of Health HAI committee, APIC and long-term care organizations



MDRO Infection Prevention Promising Practices: Surveillance

- MDRO surveillance is a critical component of the Infection Prevention and Control Program
 - Allows the prompt detection of newly emerging pathogens
 - Monitors epidemiological trends
 - Measures the effectiveness of interventions
- Surveillance strategies
 - Routine clinical cultures (monitor clinical micro isolates as part of the routine clinical care)
 - Cause analysis (drill down) of the infections surrounding a positive culture (colonization versus infection)
 - Detecting asymptomatic colonization
 - Adherence to cohorting, isolation and de-isolation guidelines

MDRO Infection Prevention Promising Practices: Surveillance



ANTIBIOTIC RESISTANCE THREATS
IN THE UNITED STATES

2019



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Revised Dec. 2019

<https://www.cdc.gov/drugresistance/pdf/threats-report/clostridioides-difficile-508.pdf>

<https://www.cdc.gov/drugresistance/pdf/threats-report/mrsa-508.pdf>

<https://www.cdc.gov/drugresistance/pdf/threats-report/2019-ar-threats-report-508.pdf>

MDRO Infection Prevention Promising Practices: Surveillance

Tracking/Reporting

- Create a Methicillin-Resistant Staphylococcus Aureus (MRSA) bacteremia and *Clostridioides difficile* infection (CDI) daily or monthly report template
 - Specimen ID, MRN, admission date, specimen collected and received, type of test and results
- Create a cause analysis case summary template
 - Demographics, microbiology cultures (date, ordering clinician, sensitivity), antibiotic usage, NHSN criterion for HO or CO
- Report to your Infection Control Committee (ICC), Antibiotic Stewardship Committee (ASC), Quality and/or Nurse Sensitive Indicators Committee (NSI)
 - Annual feedback to prescriber providers, nursing staff and administration
- NHSN reporting system

MDRO Infection Prevention Promising Practices: Administrative

- Administrative support for a successful control of the targeted MDRO
 - Ensure prompt and effective communications
 - Computer alerts (tags) to identify patients previously known to be colonized/infected with MDROs
 - Necessary number and appropriate placement of hand washing sinks and alcohol containing hand rub dispensers in the facility (intuitively available/workflow)
 - Enforcing adherence to Infection Prevention and Control Program practices (hand hygiene, isolation and duration precautions)

MDRO Infection Prevention Promising Practices: Environmental

- Surface touch frequency and hand hygiene in the patient zone
 - Cohen et. al; studied the number of people entering a patient room during a **12-hour** shift. The average nurse would be expected to touch 821 surfaces (4.5 patient rooms per hour X 15.2 surface touches per interaction X **12 hours** = 821 surfaces) with a hand hygiene adherence of less than 40 percent.
 - Huslage et. al; investigated what surfaces staff touch while in the patient room: bedrails were the most touched surface (avg. **3.1 touches** per interaction); bed tables (1.6), IV pumps (1.4), and bed surfaces (1.3).
 - Combining the Cohen and Huslage data suggests that the typical patient bedrail is touched **256** times per day on average.

<https://www.sciencedirect.com/science/article/abs/pii/S1553725012380732>

<https://www.healthcarefaciliestoday.com/posts/Surface-touch-frequency-hand-hygiene-in-the-patient-zone--15923#:~:text=%E2%80%A2%2017.1%20bedrail%20touches%20per%20hour%20X%2015,hour%20respectively%2C%20which%20agrees%20with%20the%20Cohen%20data.>

[A Quantitative Approach to Defining “High-Touch” Surfaces in Hospitals | Infection Control & Hospital Epidemiology | Cambridge Core](#)

MDRO Infection Prevention Promising Practices: Environmental

Tracking tool

TERMINAL CLEANING

Record results of evaluation for each surface on the check list for every room monitored. Use the following symbols for marking:

O = NOT CLEAN, X = CLEAN, LEAVE BLANK = NOT EVALUABLE **NOTE - USE CAP LETTERS "X" AND "O"**

The percentage of individual surfaces cleaned will be automatically calculated in Sheet 2 (Aggregate Score Sheet).

Please report aggregate scores calculated for each category highlighted in Sheet 2 (Aggregate Score Sheet).

| Unit | Rm No. | Date of Marking (if) | Date of Evaluation | High Touch I | | | High Touch II | | | High Touch III | | | | Bathroom Surfaces | | | | | | Equipment Surfaces | | | | | Surfaces Cleaned for Each Room | | | |
|------|--------|----------------------|--------------------|--------------|------------|---------|-------------------|-----------|----------------------|----------------|---------|-----------------|-------------------|-------------------|-----------------|--------------|---------|-------------|---------------------|-----------------------|-----------------|------------------|----------------------|----------------|--------------------------------|------------|------------|-----------------------|
| | | | | Bed rails | Tray table | IV pole | Call box / button | Telephone | Bedside table handle | Chair | Rm sink | Rm light switch | Rm inner doorknob | BR inner doorknob | BR light switch | BR handrails | BR sink | Toilet seat | Toilet flush handle | Toilet bedpan cleaner | IV pump control | Monitor controls | Monitor touch screen | Monitor cables | Ventilator panel | # Surfaces | # Surfaces | % of Surfaces Cleaned |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0 | #DIV/0! |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 0 | #DIV/0! |

TERMINAL CLEANING

Automatic calculation of Aggregate Scores Across Surfaces and Rooms

| | High Touch I | | | High Touch II | | | High Touch III | | | | Bathroom Surfaces | | | | | | Equipment Surfaces | | | | | Aggregate TDC Score: | | | |
|---|--------------|------------|---------|-------------------|-----------|----------------------|----------------|---------|-----------------|-------------------|-------------------|-----------------|--------------|---------|-------------|---------------------|-----------------------|-----------------|------------------|----------------------|----------------|----------------------|------------------|---------|--|
| | Bed rails | Tray table | IV pole | Call box / button | Telephone | Bedside table handle | Chair | Rm sink | Rm light switch | Rm inner doorknob | BR inner doorknob | BR light switch | BR handrails | BR sink | Toilet seat | Toilet flush handle | Toilet bedpan cleaner | IV pump control | Monitor controls | Monitor touch screen | Monitor cables | | Ventilator panel | | |
| # of Surfaces Cleaned | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| # of Surfaces Evaluated | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| % of Surfaces Cleaned | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | |
| Category: Total # of Surfaces Cleaned | 0 | | | 0 | | | 0 | | | | 0 | | | | | | 0 | | | | | | | | |
| Category: Total # of Surfaces Evaluated | 0 | | | 0 | | | 0 | | | | 0 | | | | | | 0 | | | | | | | | |
| Category TDC Score: % of Surfaces Cleaned | #DIV/0! | | | #DIV/0! | | | #DIV/0! | | | | #DIV/0! | | | | | | #DIV/0! | | | | | #DIV/0! | | | |

<https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.cdc.gov%2Fhai%2Fpdfs%2Ftoolkits%2FEnvironmental-Cleaning-Eval-Worksheet-10-6-2010.xls&wdOrigin=BROWSELINK>

MDRO Infection Prevention Promising Practices: Staff Education

- Educational interventions are to encourage behavior changes on:
 - Understanding the problem of MDRO
 - Importance of hand hygiene and environmental cleaning and disinfection practices
 - Barrier precautions
 - Importance of antimicrobial prescribing patterns
- Education to nursing staff, prescribers and pharmacists on:
 - Need for antibiotic stewardship program
 - Understanding and responsibilities of antibiotic use protocols and implementation
 - Updating treatment guidelines and best practices
- Education to patients and families on:
 - Adherence to infection prevention and control guidance
 - Dangers of antibiotic misuse

Additional Tools & Resources

- CDI drill down template
- MDRO line list template
- Centers for Disease Control and Prevention (CDC) TAP Strategy
 - TAP (Target, Assess, Prevent)
 - [NHSN TAP Report](#)
 - [TAP Facility Assessments](#)
 - [TAP CDI Implementation Guide](#)
- MDRO Change Path – *Coming Soon!*

Upcoming Events



For all other events, visit our website:
<https://www.telligenqiconnect.com/calendar>

Don't miss out on these upcoming events:



Sepsis Care: Identification & Management to Optimize Patient Outcomes

10 – 11 a.m. PT/ 11 a.m. – 12 p.m. MT/ 12 – 1 p.m. CT/ 1 – 2 p.m. ET

[Registration link](#)



Catheter-Associated Urinary Tract Infection Prevention

10 – 11 a.m. PT/ 11 a.m. – 12 p.m. MT/ 12 – 1 p.m. CT/ 1 – 2 p.m. ET

[Registration link](#)

