HRET HIIN Multi-drug Resistant Organisms (MDROs)

Preventing MDROs: Horizontal and Targeted Strategies

March 28, 2017
Emily Koebnick, Program Manager, HRET

WELCOME AND INTRODUCTIONS
## Agenda for Today

<table>
<thead>
<tr>
<th>Time</th>
<th>Objectives</th>
<th>Speakers</th>
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| **11:00 a.m. – 11:05 a.m. CT** | Welcome and Introductions  
Open and housekeeping information, including review of MDRO HIIN resources and Listserv®.  
**Webinar Objectives:**  
1. To define key drivers and change ideas to tackle multi-drug resistant organisms in your facility  
2. To discuss comprehensive horizontal prevention strategies, as well as when to consider targeted approaches  
3. To share what works at your facility and learn from your fellow HIIN hospitals successful strategies to test | Emily Koebnick  
Program Manager, HRET |
| **11:05 a.m. – 11:10 a.m. CT** | Data Updates  
Review HIIN baseline performance related to lab-identified MRSA rates. | Rich Rodriguez  
Data Analyst, HRET |
## Agenda for Today

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Details</th>
<th>Facilitators</th>
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<tbody>
<tr>
<td>11:10 a.m. – 11:30 a.m.</td>
<td>Hardwiring MDRO Reduction Strategies</td>
<td>Get a “sneak peek” at the upcoming MDRO change package, including key drivers and change ideas to drive down MDRO in your facility.</td>
<td>Betsy Lee, MSPH, RN Barb DeBaun, RN, MSN, CIC Improvement Advisors Cynosure Health</td>
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<td>11:30 a.m. – 11:55 a.m.</td>
<td>Driving HIIN Action on MDRO</td>
<td>Participants will engage in active dialogue to explore adaptations of evidence-based strategies to reduce MDRO. Topics for discussion include:</td>
<td>Facilitated by: Barb DeBaun, RN, MSN, CIC Betsy Lee, MSPH, RN Improvement Advisors, Cynosure Health</td>
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<tr>
<td>11:55 a.m. – 12:00 p.m. CT</td>
<td>Bring it Home</td>
<td>Next steps</td>
<td>Emily Koebnick Program Manager, HRET</td>
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<td>Resources</td>
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MDRO DATA
Hospital-Onset MRSA Bacteremia Rate

Relative Reduction Baseline to Oct-Dec 2016: -.54%

<table>
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<tr>
<th>Baseline</th>
<th>2016-10</th>
<th>2016-11</th>
<th>2016-12</th>
<th>2017-01</th>
<th>2017-02</th>
<th>2017-03</th>
<th>2017-04</th>
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<td>% of hospitals reporting</td>
<td>73%</td>
<td>65%</td>
<td>63%</td>
<td>55%</td>
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Data submission represents percentage of hospitals expected to report data for the measure. Relative reduction represents preliminary results for the first quarter of reporting.

Results for months where data submission is below 50% should be interpreted with caution.
HARDWIRING MDRO PREVENTION STRATEGIES

Betsy Lee, MSPH, RN
Barb DeBaun, RN, MSN, CIC
Improvement Advisors, Cynosure Health
MDRO Introduction and Definition
Antibiotic Resistance Impact

• More than two million people in the U.S. every year
• At least 23,000 deaths
Yesterday’s Headline News

Thanks to PENICILLIN
...He Will Come Home!

PENICILLIN CURES GONORRHEA IN 4 HOURS
Today’s Headline News

• Single most important factor
• Most commonly prescribed drugs
• 50 percent not needed or inappropriately prescribed
• Commonly used in food animals
Sneak Peek at the Change Package
Major Buckets

Antimicrobial Stewardship
Horizontal Practices
Decolonization
Patient Family Engagement
Polling Question

In which of the following areas do you believe you have made the most improvement?

• Antimicrobial Stewardship
• Horizontal Practices
Polling Question

Our Antimicrobial Stewardship program is:

- Robust and firing on all cylinders
- Pretty good but still a work in progress
- Just getting started
- Not on our radar
Antimicrobial Stewardship

Percent of Hospitals with Antibiotic Stewardship Programs by State, 2015*

Nationally, 48.1% of all hospitals have stewardship programs (2,199 of 4,549); the national goal is 100% of hospitals by 2020.

* A hospital stewardship program is defined as a program following all 7 of CDC’s Core Elements of Hospital Antimicrobial Stewardship Programs.

Source: CDC’s National Healthcare Safety Network (NHSN) Survey

GET SMART
Erase When Antibiotics Work
Antimicrobial Stewardship

• Analyze use and determine appropriateness of treatment
  – Implement antibiotic time-outs at 48 or 72 hours to de-escalate and modify therapy

• Limit antimicrobial use
  – Pre-authorization and formulary controls
  – Antibiotic de-escalation

• Avoid inappropriate antibiotic prescriptions
  – Avoid “culture of culturing” for asymptomatic bacteriuria
  – Verify the presence of a bacterial or fungal infection
Where Can You Start?

• Decide what antibiotic to target by considering:
  – Potential risk
  – Volume used
  – High cost

• Set up a review process

• Monitor your results

• Spread to other antibiotics when you can
Horizontal Practices: Identification
Infection Prevention Precautions

SPECIAL CONTACT PRECAUTIONS

To prevent the spread of infection:

- Use alcohol gel on hands when entering room
- You must wash hands with soap and water when leaving the room.
- Wear gloves when entering the room if stepping outside of the “Safe Zone.”
- Wear a gown when entering the room if stepping outside of the “Safe Zone.”
- Use bleach to clean room and items brought into room before removing.

Standard precautions should be used with all precautions as needed

Questions? Call Infection Prevention 455-4034

[Image of hand sanitizer and gloves]
Hand Hygiene

CDI  CAUTI  SSI  VAE  CLABSI  Sepsis  MDRO

ATTENTION! I HAVE A CENTRAL LINE

SOAP UP
**Equipment and Environment**

**SPREAD THE WORD!**

**STOP**

**THE GERMS!**

Twelve high-touch objects in every patient room need good cleaning to help prevent infections. Please be a part of the **TEAM** and help keep our patients safe.

Together eliminating all microbes.
## Role Clarity

**Instructions:**
- Do not share with anyone that you are conducting the audit.
- Observe all staff-nurses, physicians, RT’s, housekeeping staff, etc. (see other side of form for Staff Codes).
- Observe for 30 minutes. This may be broken up in small increments of time. OR,
- Observe at least 15 staff members.

**Unit/Department**

**Date**

**Time**

*Indicate below what activity was observed and check the one box that applies to that activity.*

<table>
<thead>
<tr>
<th>Person Entered the Room for Direct Contact with the Patient or Environment</th>
<th>Hand Hygiene Supplies (Soap, Hand Sanitizer, Towels) are Adequate</th>
<th>Did You See Him/Her Use Soap or Alcohol Gel When Entering the Room?</th>
<th>Person Exit the Room After Direct Contact with the Patient or Environment</th>
<th>Did You See Him/Her Use Soap or Alcohol Gel When Exiting the Room?</th>
<th>Person Exited the Room With Gloves On After Direct Contact with the Patient or Environment</th>
<th>Did You See Him/Her Use Soap or Alcohol Gel After Removing Gloves?</th>
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<tr>
<td>Enter Staff Code</td>
<td>Yes</td>
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<td>Enter Staff Code</td>
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Adapted with permission from Stanford Health Care, Palo Alto, CA
Assess Need for Decolonization in ICU
Horizontal vs. Targeted Precautions

• Huang et. al (2013) - Daily CHG bathing plus five days of intranasal mupirocin reduced MRSA positive clinical cultures by 37 percent, compared with active surveillance testing (AST) and isolation alone.

• Frost, et. al (2016) - CHG bathing in ICU reduces:
  – CLABSI by 56 percent
  – MRSA colonization by 41 percent
  – MRSA bacteremia by 36 percent
Patient Family Engagement
1. **Institute antimicrobial stewardship program (ASP) incorporating prospective review and transparent data feedback.**

2. **Avoid inappropriate antimicrobial prescriptions.**

3. **Approach MDRO transmission as a cross-cutting harm.**

4. **Engage community partners, physicians, patients, and other health care facilities in developing community action plan to reduce MDRO burden in region.**

5. **Develop surveillance plan based upon organizational risk assessment**, focusing on rapid identification of MDRO, and measures to control known risks.

6. **Hardwire hand hygiene.**

7. **Formulate strategy for contact precautions** to prevent MDRO transmission.

8. **Focus on team-based strategies to ensure reliable cleaning of equipment and environment.**

9. **Consider universal decolonization through chlorhexidine bathing and nasal decolonization** for ICU patients.

10. **Educate patients and families using teach-back** regarding the risks of antimicrobial use, as well as infection prevention measures.
Where are our bright spots?
Let’s Talk

• Topics to stretch our thinking:
  – Consider MDRO as cross-cutting topic
  – What are your protocols for targeted vs. horizontal precautions?
    • Active surveillance testing?
    • Are you using CHG bathing and decolonization outside ICU? If so, how have you identified the patient populations based upon risk assessment and community MDRO prevalence?
Call in and share your tips
MDRO REDUCTION: WHAT IS WORKING?

Facilitated by:
Betsy Lee, MSPH, RN
Barb DeBaun, RN, MSN, CIC
Improvement Advisors, Cynosure Health
Emily Koebnick, Program Manager, HRET

BRING IT HOME
Coming Soon! – Change Package

MDRO-specific change package will be available April 2017 for MDRO-specific strategies
All resources are available in the pods below.
Find more information on our website: www.hret-hiin.org

Questions or Comments: HIIN@aha.org