Agenda

• Welcome
• HIIN Update
• Presentation: MRSA
  Linda R. Greene, RN, MPS, CIC, Infection Prevention Manager, Highland Hospital, Rochester, N.Y.
• Presentation: Hospitals in Action
  “MRSA Prevention Strategies”
  Eve T. Early, MT, MA, CIC, Director of Infection Prevention, Orlando Health
• Questions / Discussion
• Next Chasing Zero Infections Webinar
• Evaluation & Continuing Nursing Education
**Where We are Going**

**GOALS:**

**20%**

**Overall Reduction in Hospital Acquired Conditions**  
(baseline 2014)

**12%**

**Reduction in 30-Day Readmissions**  
(baseline 2014)

“America’s hospitals embrace the ambitious new goals CMS has proposed,” said Rick Pollack, president and CEO of the American Hospital Association (AHA). “The vast majority of the nation’s 5,000 hospitals were involved in the successful pursuit of the initial Partnership for Patients aims. **Our goal is to get to zero incidents.** AHA and our members intend to keep an unrelenting focus on providing better, safer care to our patients -- working in close partnership with the federal government and with each other.”

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<th>Harms/1,000 Discharges</th>
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<td><strong>New Goal 2019</strong></td>
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partnershipforpatients.cms.gov
Core Topics – Aim is 20% reduction

1. Adverse Drug Events (ADE)
2. Catheter-associated Urinary Tract Infections (CAUTI)
3. C. difficile infection (CDI)
4. Central line-associated Blood Stream Infections (CLABSI)
5. Injuries from Falls and Immobility
6. Pressure Ulcers (PrU)
7. Sepsis
8. Surgical Site Infections (SSI)
9. Venous Thromboembolisms (VTE)
10. Ventilator Associated Events (VAE)
11. Readmissions (12% reduction)
MTC Resources

- QI Fellowships
- Listservs
- Safe Culture Accelerator
- Team STEPPS training
- Transforming Care at the Bedside
- Chasing Zero Infections Series
- Up Campaign - **Soap Up**, Get Up, Wake Up
Fellowships: Tools to Improve Quality Improvement Skills

• **Foundational HIIN Action Leader Fellowship:** for new HIIN participants or those new to quality improvement

• **Advanced HIIN Action Leader Fellowship:** for QI-trained HIIN participants or those who have been focused on quality improvement and patient safety for >5 years

• What it entails
  – Integrated learning across topics
  – Access to Institute for Healthcare Improvement Open School Courses
  – Focus on peer-to-peer learning
  – Projects will highlight individual hospital progress toward HIIN project goals
  – Supported by virtual and on-site collaboration
  – Certificate/Fellowship designation awarded
  – CEUs
LISTSERV® Collaboration

- Subscriber-based email group
- Each email group covers a different topic or group of topics
- Monitored by national experts
- Ideal for:
  - Peer-shared learnings
  - Asking questions about barriers
  - Sharing data-collection opportunities
  - Clarifications about measures or inclusion/exclusion criteria
Welcome - HRET Hospital Improvement Innovation Network!

This page is under construction, please check back on October 7, 2016 for updated information and resources!

The Centers for Medicare & Medicaid Services recently awarded $347 million in contracts to 16 organizations, including the Health Research & Educational Trust (HRET), to continue efforts to reduce hospital-acquired conditions and readmissions in the Medicare program. The HRET HIIN will work to reduce overall hospital-acquired conditions by 20% and 30-day hospital readmissions by 12%, building on the success of the Partnership for Patients Hospital Engagement Networks and Quality Improvement Organizations. HRET led the largest HEN and HEN 2.0 projects.

New to HRET HIIN? HRET HIIN Hospital Kickoff for New Hospitals

We invite hospitals who did not participate in HRET HEN 2.0 to join HRET HIIN, a diverse network that will include over 1,700 hospitals across 32 states, by attending a Webinar for New Participants on Thursday, October 6, 2016 from 11:00 AM CDT - 12:30 PM CDT. Register at the link below:
http://hret.addbeconnect.com/hin/kickoff/newhospitals/event/registration.html

Previous HRET HEN 2.0 Participant? HRET HIIN Hospital Kickoff for HRET HEN 2.0 Hospitals

For hospitals who participated in HRET HEN 2.0, please join us to discuss our transition to HIIN by attending a Webinar for Previous Participants on Thursday.
## 2017 Chasing Zero Infections Series

<table>
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<tr>
<th>Didactic Webinars</th>
<th>Interactive Coaching Calls</th>
<th>In-Person Meetings</th>
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<td>Feb. 14 - MRSA</td>
<td>Mar. 21 - CAUTI</td>
<td>May 25</td>
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<td>Apr. 11 – Surgical Site Infections</td>
<td>Aug. 8 – TBA*</td>
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Check your *HIIN INFO Upcoming Events* Weekly Email for event details and registration

*To be announced*
Other Upcoming Events

- **Feb. 15** – AHA/ASHRM Hospitals Against Violence
- **Feb. 16** – HRET HIIN Up Campaign Virtual Event
- **Feb. 22** – Leadership Webinar: Patient Safety Culture
- **Feb. 23** – HRET HIIN CAUTI Virtual Event
- **Mar. 1** – TCAB Nursing Unit Team Launch Meeting, Harry P. Leu Gardens, Orlando
- **Mar. 2** – HIIN Roadshow, The Westin Lake Mary
- **Mar. 7** – FHA / HSAG Webinar: ADE Impact on Hospital Readmissions

Check your *HIIN INFO Upcoming Events* Weekly Email for event details and registration
Presentation:
Methicillin-resistant
Staphylococcus aureus (MRSA)

Linda R. Greene, RN, MPS,CIC
Manager, Infection Prevention
UR Highland Hospital
Rochester, NY
linda_greene@urmc.rochester.edu
Polling Question #1

• What is your role?
  – Infection Preventionist
  – Staff Nurse
  – Team Leader
  – Quality / Patient Safety
  – Nurse Manager
  – Other
Polling Question #2

• Do you isolate MRSA patients?
  – All colonized and infected
  – Infected only
  – No
  – Special circumstances only
Objectives

- Describe the epidemiology of MRSA
- Discuss Lab ID monitoring for MRSA
- Identify pros and cons of the NHSN Lab ID
Definitions

Colonization

Growth and Multiplication without Disease

Infection

Clinical or subclinical response
Colonization

VS

Infection
MRSA

- *Staphylococcus aureus*- Resistant to Antibiotics Normally used to treat staph infections

- Microbiology – Gr+ cocci with many virulent factors

- Frequent nosocomial- and community-acquired pathogen

- Mode of transmission – contact

- Clinical manifestations:
  - Skin and soft tissue infections
  - Pneumonia
  - Osteomyelitis / Arthritis
  - Bacteremia / Sepsis
  - Endocarditis
  - Toxin-mediated disease
Where does MRSA reside?

- Epidemiologic niche:
  - Nasal carriage (anterior nares)
  - GI tract (rectal)
  - Perineal
  - Throat

- Nasal carriage – 30% of adults
  - 20% Persistent carriers
  - 60% Transient carriers
  - 20% Never carriers

- Nosocomial transmission – transient hand carriage
How does resistance develop?

- Beta-lactams are antibiotics that prevent SA (and other germs) from producing cell walls. That's generally bad news for the bacteria. (i.e. penicillin, cephalosporins, monbactams, carbapenems)

- Some SA have a gene, however, that allows them to form an enzyme called beta-lactamase. The enzyme destroys beta-lactams before the beta-lactams can destroy the bacterium.
Staphylococcus *aureus* is a frequent colonizer of the skin and mucosa and can cause a broad range of clinical manifestations. Risk factors for complications of *S. aureus* infection include community acquisition of bacteremia, presence of a prosthetic device, and underlying medical conditions including immunosuppression.

Clinical manifestations of *S. aureus* infection include skin and soft tissue infection, bacteremia, and associated conditions (including infective endocarditis, cardiac device infection, intravascular catheter infection, and toxic shock syndrome).
Clinical Significance Con’t

• Bacteremia may develop as a complication of a primary *S. aureus* infection (such as skin and soft tissue infection). Bacteremia may also lead to subsequent *S. aureus* infection at a previously sterile site (such as vertebral osteomyelitis).

• Development of back or joint pain should raise the suspicion of an occult site of infection in patients with current or recent *S. aureus* bacteremia. In adults, hematogenous osteomyelitis most commonly presents in the form of vertebral involvement.
Risk Factors

- Historical Risk Factors
- Prolonged hospitalization
- Prolonged antimicrobial use
- Stay in an intensive care or burn unit
- Exposure to a colonized/infected person
- Residence in a nursing home
- Age >65
- Common infections include surgical wound infections, urinary tract infections, bloodstream infections, and pneumonia
MRSA Bacteremia Reporting

- Lab ID Event reporting allows laboratory testing data to be used without clinical evaluation of the patient, allowing for a much less labor intensive method to track MDROs such as MRSA
- This is a proxy infection measure of healthcare Acquisition, exposure burden and infection burden based primarily on admission and laboratory data
Definition

• CO (Community onset) – occurs on day 1-3 of admission to inpatient location. Admission day is always day 1

• HO (Healthcare Onset) – occurs day 4 or after of admission
Advantages and Disadvantages

Advantages:
- Identify vulnerable populations
- Estimate infection burden
- Estimate exposure burden
- Standardized definitions allow for consistency across healthcare settings

Disadvantages:
- No patient evaluation
- Pre-existing infections on admission may have positive blood culture results later in admission
- Follow up Blood cultures more than 14 days after initial culture may be necessary resulting in new HO
# NHSN Re-Baseline

## 2015 Baseline

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| 2016Q4    | 3      | 0                | 1.064      | 21468      | 0.000 | 0.3450   | 2.815
Prevention Activities

Strategies to Prevent Methicillin-Resistant Staphylococcus aureus Transmission and Infection in Acute Care Hospitals: 2014 Update

David P. Calfee, MD, MS; Cassandra D. Salgado, MD, MS; Aaron M. Milstone, MD; Anthony D. Harris, MD, MPH; David T. Kuhar, MD; Julia Moody, MS; Kathy Aureden, MS, MT, CIC; Susan S. Huang, MD, MPH; Lisa L. Maragakis, MD, MPH; Deborah S. Yokoe, MD, MPH
Institute basic practices
- Conduct an MRSA risk assessment
- Educate healthcare personnel regarding MRSA
- Ensure compliance with hand hygiene recommendations
- Ensure proper cleaning and disinfection of equipment and environment
- Ensure compliance with contact precautions for MRSA-colonized and -infected patients
- Implement an MRSA monitoring program
  - Implement an MRSA line list
  - Implement a laboratory-based alert system so that healthcare personnel are immediately notified of new cases of MRSA
  - Implement an alert system that identifies readmitted or transferred MRSA-colonized or -infected patients

Continue to monitor MRSA rates
- Develop a system to regularly report MRSA-related data to relevant stakeholders, physicians, nurses, staff, and other hospital leaders
- Hold appropriate individuals and groups accountable for implementing and complying with basic prevention measures

Determine if MRSA has been effectively controlled

MRSA NOT effectively controlled
- Ensure compliance with basic practices

MRSA, NOT effectively controlled
- Institute one or more special approaches
  - Conduct active surveillance testing for MRSA colonization among patients
  - Ensure compliance with active surveillance testing program
  - Implement MRSA decolonization therapy
    - Targeted therapy (mupirocin +/- CHG) with active surveillance testing
    - Universal therapy among high-risk patients (CHG +/- mupirocin)
- Implement universal gowns and gloving
- Continue to monitor MRSA rates
- Continue MRSA reporting and accountability system

Determine if MRSA has been effectively controlled

MRSA effectively controlled
- Continue basic practices
- Continue to monitor MRSA rates
- Continue MRSA reporting and accountability system

MRSA NOT effectively controlled
- Ensure compliance with special approach(es)
- Assess need to intensify or expand previously implemented special approach(es)
- Consider additional special approaches
- Continue to monitor MRSA rates
- Continue MRSA reporting and accountability system
Prevention Activities

- Hand Hygiene - monitor and report compliance
- PPE use – monitor compliance
Blood Culture Analysis

- Use lab ID events to identify opportunities for improvement
- Identify preventable vs. non preventable events
- Line list of all bloods
- Begin by looking at source of infection
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Key Questions

- Do you monitor and provide feedback on hand hygiene?
- Do you monitor and provide feedback on PPE donning and doffing?
- Do you track MRSA Infections from other sources (SSIs)?
- Do you share resistance data with key stakeholders? (antibiograms)
Presentation: Hospitals in Action
“MRSA Prevention Strategies”

Eve T. Early, MT, MA, CIC
Director of Infection Prevention
Orlando Health
MRSA Prevention Strategies
MRSA PREVENTION PROTOCOLS

Active Surveillance Screening Program

Isolation Protocols

Universal Decolonization Protocol
Active Surveillance Screening Program
Active Surveillance Screening Program

Who is screened?

– Transfers from a non-Orlando Health Hospital

– Admissions from skilled nursing facilities

– Admissions from long term acute care facility's
Active Surveillance Screening Program

Who is screened?

– All ICU admissions

– Patients with previous history of MRSA

– dialysis, inpatient within the last year, and skin/soft tissue infections with unknown organisms
Active Surveillance Screening Program

Protocol for patients requiring screening

– Isolate at time of screening and continue isolation unless the test is negative

– Remove from isolation with three negative cultures on three separate admissions at least 30 days apart
Isolation Protocols
Identification of MRSA Patients Requiring Isolation

• Patient provides a history of MRSA

• Patient identified by a flag in clinical data system

• Patient has a new positive culture for MRSA
MRSA Isolation

• Contact precautions required for all patients identified as colonized or infected with MRSA.

• Gown and gloves required for entry into the patient room.

• All non critical equipment cleaned upon removal from the room.
ICU MRSA Protocol
ICU
MRSA Protocol

Any patient admitted or transferred to the ICU

– All patients – Laboratory Active Surveillance
– Isolate patients from: SNF, hops adm within last year, or hx MRSA, dialysis, open wounds unknown organism,
– Decolonization protocol- CHG bath, mupirocin nares
– Weekly – Lab screening
MRSA Decolonization: Adult ICU at Orlando Health

- June 2013- Huang, Susan et al published results of a 43 hospital study (74 ICU). Findings indicated that universal decolonization resulted in significantly greater reduction in all blood stream infections and clinical isolates of MRSA than either targeted decolonization or Screening and Isolation procedures.
MRSA Decolonization: Adult ICU
Orlando Health

• April 2014 – South Seminole Hospital ICU successful implementation pilot reviewed by all Orlando Health ICUs.

• August 2014 – All Orlando Health ICU (excepting Health Central) began universal MRSA decolonization protocols for all ICU patients.
  – Mupirocin nasal ointment for 5 days on admission
  – CHG bathing daily (already implemented prior to this time.
  – Continue Screens (Admission and Weekly) and reevaluate after sufficient time.
Mupirocin 2% topical ointment

- Begin on admission for 5 days twice a day
- Continue for full 5 days, even if transferred out of ICU
- Multi-dose tube delivers enough ointment for the full 5 day treatment (*send with pt. if transferred out of ICU*)
- Restart if readmitted to ICU and has completed initial 5 day treatment
CHG Bathing Key Points

✔ Bathe all patients on admission and daily while in the ICU
✔ Start from the jawline to the toes
✔ Wipe over all lines, tubes, and drains
✔ Wipe over occlusive dressing and around wound dressings
✔ Allow CHG to air dry
✔ Ok to use additional CHG wipes throughout the day
Questions / Discussion
Interactive Coaching Call

- Topic: Catheter-Associated Urinary Tract Infection (CAUTI)
- Date: March 21, 2017
- Time: 1:00 – 2:00 p.m. ET
- Format - Latest Evidence, Polling Questions, Discussion Questions
- **You can participate**: Send your CAUTI questions to sally@fha.org no later than Wednesday, March 15
- Registration Link: https://cc.readytalk.com/r/ns52jgay52ny&eom
Eligibility for Nursing CEU requires submission of an evaluation survey for each participant requesting continuing education:
https://www.surveymonkey.com/r/ChasingZero021417

- Share this link with all of your participants if viewing today’s webinar as a group
- Be sure to include your contact information and Florida nursing license number
- FHA will report 1.0 credit hour to CE Broker and a certificate will be sent via e-mail
Sally Forsberg, RNC-OB, BSN, MBA, NEA-BC, CPHQ
Florida Hospital Association
sally@fha.org | 407-841-6230

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