Chasing Zero Infections
Webinar: C. difficile Coaching Call
August 8, 2017
Welcome & HIIN Update
- Sally Forsberg, RNC-OB, BSN, MBA, NEA-BC, CPHQ, Clinical Performance Improvement Advisor, FHA

Clostridium Difficile Infection (CDI)
Interactive Coaching Call: Latest Evidence, Polling Questions and Discussion Points
- Linda R. Greene, RN, MPS, CIC, FAPIC, Manager of Infection Prevention, UR Highland Hospital, Rochester, NY

Next Chasing Zero Infections

FHA Quality & Service Awards

Evaluation & Continuing Nursing Education
HIIN Core Topics – Aim is 20% reduction

- Adverse Drug Events (ADE)
- Catheter-associated Urinary Tract Infections (CAUTI)
- *Clostridium Difficile Infection (CDI)*
- Central line-associated Blood Stream Infections (CLABSI)
- Injuries from Falls and Immobility
- Pressure Ulcers (PrU)
- Sepsis
- Surgical Site Infections (SSI)
- Venous Thromboembolisms (VTE)
- Ventilator Associated Events (VAE)
- Readmissions (12% reduction)
- Worker Safety
MTC FHA HIIN

How are we doing with reducing Clostridium Difficile Infection?
**C. Difficile**

<table>
<thead>
<tr>
<th></th>
<th>BL</th>
<th>10/16</th>
<th>11/16</th>
<th>12/16</th>
<th>01/17</th>
<th>02/17</th>
<th>03/17</th>
<th>04/17</th>
<th>05/17</th>
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<tbody>
<tr>
<td><strong>FL Rate</strong></td>
<td>6.96</td>
<td>5.05</td>
<td>5.43</td>
<td>5.12</td>
<td>5.02</td>
<td>5.09</td>
<td>4.70</td>
<td>4.25</td>
<td>4.90</td>
</tr>
<tr>
<td><strong>HRET HIIN Rate</strong></td>
<td>6.15</td>
<td>6.10</td>
<td>6.13</td>
<td>5.79</td>
<td>6.05</td>
<td>5.49</td>
<td>5.28</td>
<td>5.11</td>
<td>5.16</td>
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<tr>
<td><strong># FL Reporting</strong></td>
<td>90</td>
<td>90</td>
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<td>90</td>
<td>90</td>
<td>81</td>
<td>80</td>
</tr>
<tr>
<td><strong>#HRET HIIN Reporting</strong></td>
<td>1,506</td>
<td>1,553</td>
<td>1,552</td>
<td>1,555</td>
<td>1,539</td>
<td>1,536</td>
<td>1,505</td>
<td>1,384</td>
<td>1,281</td>
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</tbody>
</table>

Source: Comprehensive Data System, August 3, 2017
MTC HIIN Resources

- Change Packages & Top 10 Checklists – 2017 Updates
- Listservs- Infection Focused
- TeamSTEPPS training
- Chasing Zero Infections Series: Webinars and In-person Meetings
- Up Campaign- Soap Up (Hand Hygiene)
- Hospital Consultation with Experts
- QI Fellowships & PFE Fellowship

Check the weekly email: MTC HIIN Upcoming Events and [www.HRET-HIIN.org](http://www.HRET-HIIN.org) for additional resources
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
Clostridium Difficile Infection (CDI)

Importance: *Clostridium difficile* is an anaerobic, spore-forming bacteria spread through fecal-oral transmission (Leffler & Leman, 2015). *C. difficile* colonizes the large intestine and releases two toxins that can cause a number of illnesses including diarrhea, colitis and sepsis. Nonetheless, colonized patients do not always present symptoms. *C. difficile* transmission in hospitals occurs primarily from contaminated environments and through the hands of healthcare personnel (Cohen et al., 2010; Guerrero et al., 2012). However, *C. difficile* spores are resistant to the bactericidal effects of alcohol and the most commonly used hospital disinfectants. Antimicrobial therapy is the most important risk factor for *C. difficile* infections; the antibiotics destroy normal gut flora, allowing for the overgrowth of *C. difficile*. While all patients taking antibiotics are at risk of *C. difficile* infections, longer courses of antibiotic therapy and multiple courses of antimicrobials increase *C. difficile* infection risk. *C. difficile* is the most frequently reported hospital-acquired pathogen (Leffler & Leman, 2015). A 2011 CDC surveillance study found that *C. difficile* caused almost half of a million infections and directly led to approximately 15,000 deaths in one year (Lesca et al., 2015). The majority of these deaths occur in Americans aged 65 or older. Learn more about the impact of CDI on patients.

Additional health care costs related to *C. difficile* infections are estimated at $4.8 billion for acute care facilities alone (Dubberke & Olsen, 2012). Cases commonly appear in outbreaks and clusters (Burdon, 1982). However, the CDC study estimates that only one-quarter of *C. difficile* infections occur in hospitals, with others occurring in nursing homes and community settings (Lesca et al., 2015). As a result, *C. difficile* infection prevention efforts should focus on antimicrobial stewardship and preventing disease transmission.

**MIP Goal:** By September 27, 2018, a 20 percent reduction in Clostridium Difficile Infections.
CDI resources available at www.HRET-HIIN.org:

- Change Package
- Top 10 Checklist
- Watch Past Webinars
- Additional Resources
UP Campaign: Hand Hygiene

CDI | CAUTI | SSI | VAE | CLABSI | Sepsis

S O A P - U P
<table>
<thead>
<tr>
<th>S</th>
<th>Scrub: for 20 seconds with the right product. Remember soap for <em>C. diff</em>.</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>Own: your role in preventing HAIs.</td>
</tr>
<tr>
<td>A</td>
<td>Address: immediately intervene if breach is observed.</td>
</tr>
<tr>
<td>P</td>
<td>Place: hand hygiene products in strategic locations.</td>
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<td>-</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>Update: hand hygiene products and policies as needed to promote adherence.</td>
</tr>
<tr>
<td>P</td>
<td>Protect: patient and families, get them involved.</td>
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## Chasing Zero Infections Series

<table>
<thead>
<tr>
<th>Didactic Webinars</th>
<th>Interactive Coaching Calls</th>
<th>In-Person Meetings</th>
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<tbody>
<tr>
<td>Apr. 11 – SSI</td>
<td><em>Aug. 8 – C. difficile</em></td>
<td></td>
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<tr>
<td>Jun. 6 – CLABSI</td>
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<td>Sep. 12 – Sepsis</td>
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<tr>
<td>Oct. 24 – Soap Up (Hand Hygiene)</td>
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<td>Nov. 16 – S. FL location TBA*</td>
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*To be announced

Check your [MTC HIIN Upcoming Events](#) Weekly Email for details and registration
To request an archived webinar, email HIIN@fha.org
Upcoming Events

- **Aug. 9** – FHA HIIN Pharmacy Roundtable: Antimicrobial Stewardship
- **Aug. 9 & Sept. 13** – TeamSTEPPS Journey from the Fundamentals through Sustainment (Part 2 and 3)
- **Aug. 10** – HRET HIIN Readmissions Fishbowl Series 4
- **Aug. 15** – HRET HIIN VTE Prophylaxis – Strategies to Decrease Patient Refusals
- **Aug. 17** – HRET HIIN Readmissions Virtual Event: Community Partnerships
- **Aug. 24** – HRET HIIN ADE Opioid Safety Fishbowl Series 4
- **Sept. 26** – TCAB Cohort 2 Nursing Unit Launch Meeting | Harry P. Leu Gardens, Orlando
- **Sept. 27** – TCAB Cohort 1 Mid-point Meeting | Harry P. Leu Gardens, Orlando
- **Nov. 7-8** – TeamSTEPPS Master Trainer Course | Indian River Recreation Center, Vero Beach (Sept. 28 Pre-meeting webinar)

Check your *MTC HIIN Upcoming Events* Weekly Email for details and registration
C. difficile Coaching Call

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Manager, Infection Prevention
UR Highland Hospital
Rochester, NY
linda_greene@urmc.rochester.edu
What Is Your Background?

1. Infection Preventionist
2. Quality specialist
3. Nurse leader
4. Staff nurse
5. Other
Burden of *Clostridium difficile* Infection in the United States

Estimated that *C. difficile* caused approximately 453,000 incident infections and was associated with approximately 29,000 deaths in the United States in 2011 on the basis of data from active population- and laboratory-based surveillance across diverse geographic locations in the United States.

Only an estimated 24% of cases occurred in hospital settings.
DEADLY DIARRHEA:  
*C. DIFFICILE* CAUSES IMMENSE SUFFERING, DEATH

**IMPACT**
- Caused close to half a million illnesses in one year.
- Comes back at least once in about 1 in 5 patients who get *C. difficile*.
- For people over 65, one in 11 died of a healthcare-associated CDI within a month of receiving a diagnosis with *C. difficile*.

**RISK**
- People on antibiotics are 7-10 times more likely to get *C. difficile* while on the drugs and during the month after.
- Being in healthcare settings, especially hospitals or nursing homes.
- More than 80% of *C. difficile* deaths occurred in people 65 and older.

**SPREAD**
- Touching unclean surfaces, especially those in healthcare settings, contaminated with feces from an infected person.
- Dirty hands.
- Failing to notify other healthcare facilities when patients with *C. difficile* transfer from one facility to another.

**PREVENT**
- Improve prescribing of antibiotics.
- Use best tests for accurate results to prevent spread.
- Rapidly identify and isolate patients with *C. difficile*.
- Wear gloves and gowns when treating patient with *C. difficile*. Remember that hand sanitizer doesn’t kill *C. difficile*.
- Clean room surfaces with EPA-approved, spore-killing disinfectant (such as bleach), where *C. difficile* patients are treated.

Of the estimated community onset cases, 82% were estimated to be associated with outpatient health care exposure.
How Is Your *C. difficile* Compared to National Data?

1. Worse than average
2. About average
3. Better than average
What Is Your Biggest Barrier in Reducing C. _difficile_?

1. Inappropriate testing
2. High risk patient population
3. Lack of physician support
4. Lack of antibiotic stewardship
Discussion
### TIER 1 Standardize Supplies, Procedures and Processes

<table>
<thead>
<tr>
<th>Implementation</th>
<th>Conduct early, appropriate CDI testing and alert staff of CDI status</th>
<th>Prevent transmission of CDI through strict glove use and hand hygiene</th>
<th>Initiate Contact Precautions promptly when patients test positive for CDI and maintain for duration of CDI illness</th>
<th>Ensure cleaning and disinfection of equipment and environment</th>
<th>Monitor HO-CDI rates and share with staff and leadership</th>
</tr>
</thead>
</table>

- Implement antibiotic stewardship interventions specific to CDI
- Conduct early, appropriate CDI testing and alert staff of CDI status
- Prevent transmission of CDI through strict glove use and hand hygiene
- Initiate Contact Precautions promptly when patients test positive for CDI and maintain for duration of CDI illness
- Ensure cleaning and disinfection of equipment and environment
- Monitor HO-CDI rates and share with staff and leadership
Are These in Place?

1. Implemented all of the guidelines
2. Some, but not all
Prevention

Judicious use of antibiotics
Stewardship

Exposure to any antimicrobial is the single most important risk factor for *C. difficile* infection (CDI).

- **Antibiotic exposure has lasting impact on the microbiome**
  - Risk of CDI is elevated (7-10 fold) during and in the 3 months following antimicrobial therapy\(^1\)
  - 85-90% of CDI occurs within 30 days of antimicrobial exposure

- **Target high risk antibiotics for CDI prevention**
  - Fluoroquinolones
  - 3rd/4th generation cephalosporins, carbapenems
Do you have a robust stewardship committee?

1. Yes
2. No
Discussion
Isolation

How long do you isolate for C. *difficile* in the acute care setting?

1. Until meds completed and symptoms subside
2. Until discharge
Discussion
SHEA Guidelines

**Tier 2 Enhanced Practices**

If CDI rates remain elevated, start with *Guide to Patient Safety (GPS)* and then proceed with additional interventions

| Perform CDI needs assessment with Guide to Patient Safety (GPS) | Initiate Contact Precautions while CDI results are pending (for symptomatic patients) and prolong until discharge after patient becomes asymptomatic | Implement environmental cleaning process tools (audit checklists) and use of an EPA sporicidal agent | Implement hand hygiene with soap and water as preferred method on exit of room with targeted training and monitoring of HCP compliance | AND/OR | AND/OR |
## TAP Report – Looking at Data

![Image of data analysis](image)

<table>
<thead>
<tr>
<th>HO Cases</th>
<th>Expected</th>
<th>SIR</th>
<th>P Value</th>
<th>CAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>81</td>
<td>72</td>
<td>1.13</td>
<td>0.3</td>
<td>29.87</td>
</tr>
</tbody>
</table>

Monitoring Data for Action

Date of Assessment: 

Facility Name or ID: 

Facility Type: 

Unit Name or ID: 

Unit Type: 

Title or role of person completing tool: 

Years of experience at facility: (Numeric Response) 

<table>
<thead>
<tr>
<th>1. General Infrastructure, Capacity, and Processes</th>
<th>Response</th>
<th>Comments (and/or “As Evidenced By”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does your facility’s senior leadership actively promote CDI prevention activities?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>2. Is unit-level leadership involved in CDI prevention activities?</td>
<td>Yes</td>
<td></td>
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<tr>
<td>3. Does your facility have a team/work group focusing on CDI prevention?</td>
<td>Yes</td>
<td></td>
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<tr>
<td>4. Does your facility have a staff person with dedicated time to coordinate CDI prevention activities?</td>
<td>Yes</td>
<td></td>
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<tr>
<td>5. Does your facility have a nurse champion for CDI prevention activities?</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>6. Does your facility have a physician champion for CDI prevention activities?</td>
<td>Yes</td>
<td></td>
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</table>
Prevention Practices

TAP *Clostridium difficile* infection (CDI) Implementation Guide: Links to Example Resources

- General Infrastructure, Capacity, and Processes
- Antibiotic Stewardship
- Early Detection and Isolation, Appropriate Testing
- Contact Precautions/Hand Hygiene
- Environmental Cleaning
- Laboratory Practices

http://www.cdc.gov/hai/prevent/tap/cdiff.htm
Prevention Practices

Do you have prevention practices in place?

- 1. Yes, all
- 2. Some, but not all
Discussion
TAP Report

Do you use the TAP report?

1. Yes

2. No
Discussion
The most common means of *C. difficile* transmission is on hands.
Environmental Contamination
“Fecal Veneer”
Supportive Evidence

- Skin contamination and environmental shedding may persist at the time of resolution of diarrhea
- Recurrent shedding is common 1-2 weeks after therapy
- Recurrent shedding may persist 1-6 weeks after therapy
The Environment

Acquisition of spores on gloved hands after contact with the skin of patients with Clostridium difficile infection and with environmental surfaces in their rooms

Dubert M. Guerrero MD, Michelle M. Nerandzic BS, Lucy A. Jury RN, Sadao Jinno MD, Shelley Chang PhD, Curtis J. Donskey MD.

a University Hospitals of Cleveland Case Medical Center, Cleveland, OH
b Research Service, Louis Stokes Cleveland Veterans Affairs Medical Center, Cleveland, OH
c Geriatric Research, Education and Clinical Center and Research Service, Louis Stokes Cleveland Veterans Affairs Medical Center, Cleveland, OH
d Case Western Reserve University School of Medicine, Cleveland, OH
Discussion
Testing

Do you have methods in place to prevent inappropriate testing for C. *difficile*?

1. Yes
2. No
Discussion
Didactic Webinar

- Topic: Sepsis
- Date: Sept. 12, 2017
- Time: 1:00 – 2:00 p.m. ET
- Registration Link: https://cc.readytalk.com/r/nk9h78ueb71k&eom

Save the Date!

Nov. 16 Chasing Zero Infections In-person Meeting
Submit your nominations today at www.FHA.org

(Nominations must be submitted by 11:59 p.m. EDT on August 18, 2017)
Register today at:
www.FHAAnnualMeeting.com
Eligibility for Nursing CEU requires submission of an evaluation survey for each participant requesting continuing education:

https://www.surveymonkey.com/r/ChasingZero080817

Share this link with all of your participants if viewing today’s webinar as a group (Survey closes August 18)

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 (Please allow at least 2 weeks after the survey closes)
Contact Us

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