Meet the Team

Panelist:

Melody Brown, MSM
Patient Safety Manager
Alliant Health Solutions

Presenters:

Raybun Spelts, PharmD, MPH, BCIDP
Pharmacist, Department of Public Health

Teresa Fox, M.Ed., CIC
Infection Preventionist, Department of Public Health

Regina Howard, BSN, RN, CIC
Infection Preventionist, Department of Public Health
Thank You to Our Partners

- Georgia Department of Public Health
- University of Georgia
Purpose

• These sessions will consist of a regularly scheduled monthly webinar for assisted living facilities and personal care homes. Office hours are your opportunity to come and learn, share, vent and more!

• Each month, we will provide updates on infection prevention, clinical protocols and ideas for new tools and resources. This is your chance to access subject matter experts on infection control and clinical practice for your facilities.

• Come prepared to pose your questions to subject matter experts and learn from your peers about their best practices and barriers.
Trainings

There will be two training sessions per year focused on relevant infection prevention topics, updates and shared best practices.

- August Office Hours: Cleaning and Disinfection of Shared Medical Equipment
- Training 2: October/Dates TBD
Your Opinion Matters

Share in CHAT what is keeping you up at night related to infection prevention.

We want to provide you with information that is relevant to what you are doing every day.
Clostridium/Clostridioides difficile

Raybun Spelts, PharmD, MPH, BCIDP
Regina Howard,
Objectives

• Discuss *C. diff* prevention and control basic practices
• Discuss the importance of antibiotic stewardship
• Recognize who should be tested for *C. diff*
• Outline basic infection prevention and control measures to prevent the spread among residents
Abbreviations

CDI = Clostridium/Clostridioides difficile infection
Symptoms

Symptoms of *C. diff* infection can include:

- Severe diarrhea
- Fever
- Stomach tenderness or pain
- Loss of appetite
- Nausea

Epidemiology

- Causes almost a half million infections in the United States per year
- More than 80% of *C. diff* deaths occur in people 65 and older.
- Risk factors for infection:
  - Recent antibiotic use
  - Age
  - Recent hospitalization or nursing home stay
  - Weakened immune system
  - Previous infection

https://www.cdc.gov/cdiff/what-is.html
https://www.cdc.gov/cdiff/pdf/Cdiff-Factsheet-Ppdf
Residents at High Risk of Colonization

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Other Factors With Increased Risk of Colonization</th>
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<tbody>
<tr>
<td>Antibiotic use in the previous 3 mo</td>
<td>Multiple antibiotic use</td>
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<tr>
<td>History of previous <em>Clostridium difficile</em> infection</td>
<td>Duration of antibiotic therapy</td>
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<tr>
<td>Fecal incontinence</td>
<td>Renal insufficiency</td>
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<td>Patients receiving chemotherapy</td>
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<td>Recent hospitalization</td>
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<td>H2 blocker use</td>
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Chopra, T., & Goldstein, E. J. (2015). *Clostridium difficile* infection in long-term care facilities: a call to action for antimicrobial stewardship. *Clinical Infectious Diseases*, 60(suppl_2), S72-S76.
Up to 70% of nursing home residents received one or more courses of systemic antibiotics in a year.

Increases in Antibiotic Use During COVID Pandemic

https://emergency.cdc.gov/coca/calls/2021/callinfo_111821.asp
Diagnosis
Who Should Be Tested?

- Resident with at least three unformed stools in 24 hours
- Type 6 or 7 on the Bristol Stool Chart
- Do not test based solely on color or smell of stool

https://upload.wikimedia.org/wikipedia/commons/9/9e/BristolStoolChart.png
https://www.cdc.gov/hai/prevent/tap/cdiff.html
Be Able To Tell The Doctor

- Laxatives?
- Recent antibiotics?
- Proton-pump inhibitor such as Omeprazole?
- Recent medication changes?
- Recent dietary change?
- Has the resident had C. *diff* in the past?
Collecting a Stool Sample

• Obtain sample in a clean, watertight container
• Store the sample in a refrigerator until it can be sent to the doctor’s office
• Don’t re-test if a test was already done in the last seven days
• Do not test to see if the patient is “cured”

https://www.health.state.mn.us/diseases/antibioticresistance/hcp/as/ltc/apxm.pdf
Treatment
Basics

- Do not use anti-diarrheal medications.
- Is this the first episode, or has the resident had CDI before?
- If previously infected, what treatment did the resident receive?
- IDSA/SHEA 2017: oral metronidazole no longer recommended
- IDSA/SHEA 2021: Fidaxomicin, if available, recommended over vancomycin

DOI: 10.1093/cid/cix1085
DOI: 10.1093/cid/ciab549
Recurrence

Recurrence

About **1 IN 6** patients who get *C. diff* infection will get it again in the subsequent 2–8 weeks.
Vancomycin

- Commercially available dosage forms: capsule, oral solution
- Compounding recipe for solution in Lexicomp
- Administration: oral or rectal (off-label as retention enema)
- Side effects:
  - Signs of low potassium such as muscle pain or weakness, cramps or irregular heartbeat
  - Gas, abdominal pain, nausea, diarrhea
  - Headache

Fidaxomixin

- Dosage form: tablet and oral suspension
- Side effects: N/V/D, constipation, abdominal pain
- Precaution: macrolide allergy

Prevention and Control
Colonization and Infection

What are the differences between colonization and infection?

• Colonization with *C. diff* is more common than infection
  • Colonized residents exhibit NO clinical signs/symptoms of infection (e.g., diarrhea)

• Residents with infection exhibit clinical symptoms of diarrhea and test positive for the *C. diff* organism and toxin production

https://www.bing.com/search?q=image+of+C.+diff&src=IE-SearchBox&FORM=IESR4A
C. difficile Prevention Efforts

Efforts include:

• Vulnerability of resident population to C. diff infection
  • Know the medical history of your resident population
  • Medication history (laxative, peristalsis or antibiotics)
• Reduce exposure; residents are a major source of transmission
  • Infection prevention and control practices
    • Reduce the risk of transmission from symptomatic/asymptomatic residents (hand hygiene with soap & water, isolation, commode or private restrooms).
• Environmental cleaning and disinfection with EPA-approved List K sporicidal cleaners and disinfectants.
Pillars of C. difficile Prevention and Control

Hand Hygiene
Contact Enteric Precautions
Environmental Cleaning and Disinfestation
Antimicrobial Stewardship
Hand Hygiene

• Perform hand hygiene
  • Before contact with the resident
  • After removing gloves
  • After contact with the environment

• For enhanced measures, do not use alcohol hand rubs with the CDI resident – use soap and water
  • Washing away the spores is the most optimal way to perform hand hygiene to prevent the transmission of *C. difficile*

• Audit adherence to hand hygiene
Standard and Enteric Contact Precautions

- Place resident in a single-resident room with a dedicated toilet. If single-resident rooms are not available, room residents with confirmed CDI together.
- Isolate and initiate Enteric Contact Precautions for suspected or confirmed CDI:
  - Perform hand hygiene using soap and water when leaving the room.
  - Maintain adequate supplies outside the room, i.e., gowns, gloves, and cleaning wipes.
  - Signage on entry door.
  - Use dedicated or disposable equipment; shared equipment must be thoroughly cleaned prior to re-use.
- No rectal thermometers.

Isolation Précautions Signage: Contact Enteric (e.g., Clostridioides difficile)
Environmental Cleaning and Disinfection

- Increase the frequency of cleaning and disinfecting, particularly for high-touch surfaces (e.g., doorknobs, handrails)
- Audit adherence of cleaning and disinfecting to the facility’s environmental cleaning/disinfection policies
- Use single-use disposable equipment or dedicate equipment to one resident
- Use List K: EPA’s Registered Antimicrobial Products Effective against *Clostridium difficile* Spores
  
  [https://www.epa.gov/pesticide-registration/list-k-epas-registered-antimicrobial-products-effective-against-clostridium](https://www.epa.gov/pesticide-registration/list-k-epas-registered-antimicrobial-products-effective-against-clostridium)
  
  - Quaternary cleaners and daily disinfectants are not effective against *C. diff*
  - During outbreaks, consider the use of the sporicidal agent for ALL routine disinfection
- Follow manufacturer instructions for use
- Educate staff on cleaning and disinfecting specific for *C. diff*
Before cleaning, perform hand hygiene and don gloves. Change gloves throughout the task and perform hand hygiene in-between. EVS staff should don additional PPE based on patient/resident isolation status.

The cleaning should start from one point in the room and move in a clockwise or counter-clockwise motion to ensure no items in the rooms are missed.

Clean from the least soiled to most soiled and from physically high to physically low areas. End around the patient/resident bed.

Use an Environmental Protection Agency (EPA) registered disinfectant to clean floors in critical areas such as isolation rooms.

Adhere to the contact time of each disinfectant to ensure the product is given enough time to kill bacteria.

Change privacy curtains routinely, if they become soiled, and after the patient/resident is discharged, transferred, or taken off precautions.
Inter-Facility Infection Control Transfer Form

• When transferring residents, notify receiving wards or facilities about the resident’s CDI status, so precautions are maintained at the resident’s new location

https://www.cdc.gov/hai/pdfs/toolkits/Interfacility-IC-Transfer-Form-508.pdf
Antibiotic Stewardship
Antibiotic Stewardship

• Advise the resident not to take antibiotics saved at home.
• Antibiotics should only be taken as prescribed by the doctor.
• Always document the reason the resident is on an antibiotic.
• Communicate with other nurses that the resident is on an antibiotic.

https://www.cdc.gov/cdiff/clinicians/cdi-prevention-strategies.html#engage
Use Antibiotics Wisely

Common Cold
Do you need antibiotics?

Antibiotics DO NOT WORK against viruses that cause colds and will not help you feel better.

For more information, visit www.cdc.gov/antibiotic-use or call 1-800-CDC-INFO.
HOW ANTIBIOTIC RESISTANCE HAPPENS

1. There are lots of germs and a few are resistant to antibiotics.

2. When antibiotics kill bacteria causing illness, they also kill good bacteria protecting the body from infection.

3. The antibiotic-resistant bacteria grow and take over.

4. Some bacteria give their antibiotic resistance to other bacteria, causing more problems.

www.cdc.gov/antibiotic-use
ANTIBIOTICS
DON'T WORK ON COVID-19

www.cdc.gov/DrugResistance
Resident and Family Education

The Four Moments of Antibiotic Decision Making Posters | Agency for Healthcare Research and Quality (ahrq.gov)
<table>
<thead>
<tr>
<th>State Region/Districts</th>
<th>Contact Information</th>
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<tbody>
<tr>
<td>North (Rome, Dalton, Gainesville, Athens)</td>
<td><a href="mailto:Sue.bunnell@dph.ga.gov">Sue.bunnell@dph.ga.gov</a> (404-967-0582)</td>
</tr>
<tr>
<td>Districts 1-1, 1-2, 2, 10</td>
<td><a href="mailto:Mary.Whitaker@dph.ga.gov">Mary.Whitaker@dph.ga.gov</a> (404-967-0578)</td>
</tr>
<tr>
<td>Atlanta Metro (Cobb-Douglas, Fulton, Clayton, Lawrenceville, DeKalb, LaGrange)</td>
<td><a href="mailto:Teresa.Fox@dph.ga.gov">Teresa.Fox@dph.ga.gov</a> (404-596-1910)</td>
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<tr>
<td>Districts 3-1, 3-2, 3-3, 3-4, 3-5, 4</td>
<td><a href="mailto:Renee.Miller@dph.ga.gov">Renee.Miller@dph.ga.gov</a> (678-357-4797)</td>
</tr>
<tr>
<td>Central (Dublin, Macon, Augusta)</td>
<td><a href="mailto:Theresa.Metro-Lewis@dph.ga.gov">Theresa.Metro-Lewis@dph.ga.gov</a> (404-967-0589)</td>
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<tr>
<td>Districts 5-1, 5-2, 6, 7</td>
<td><a href="mailto:Karen.Williams13@dph.ga.gov">Karen.Williams13@dph.ga.gov</a> (404-596-1732)</td>
</tr>
<tr>
<td>Southeast (Columbia, Albany)</td>
<td><a href="mailto:Connie.Stanfill1@dph.ga.gov">Connie.Stanfill1@dph.ga.gov</a> (404-596-1940)</td>
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<tr>
<td>Districts 8-1, 8-2</td>
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<tr>
<td>Southwest (Valdosta, Savannah, Waycross)</td>
<td><a href="mailto:Regina.Howard@dph.ga.gov">Regina.Howard@dph.ga.gov</a> (404 967-0574)</td>
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<tr>
<td>Backup/Nights/Weekends</td>
<td><a href="mailto:Jeanne.Negley@dph.ga.gov">Jeanne.Negley@dph.ga.gov</a> (404-657-2593)</td>
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<td><a href="mailto:Joanna.Wagner@dph.ga.gov">Joanna.Wagner@dph.ga.gov</a> (404-430-6316)</td>
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Questions?
Save the Date

Next Office Hours:
August 26, 2022
11 a.m.
Thanks Again…

- Georgia Department of Public Health
- University of Georgia