

# *Clostridioides difficile*

How to focus on prevention while juggling all the other infection control challenges.

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CHI Health St. Elizabeth

May 31, 2019

# Disclosures

Zoetis, Inc.

# Objectives

1. Discuss how to develop a decision tree for *Clostridioides difficile* testing.
2. Outline how to generate a drilldown form for use in reviewing cases

# Where is your focus?

How many things do nurses need to focus on when taking care of patients?

**Care Planning**

**Medication Reconciliation**

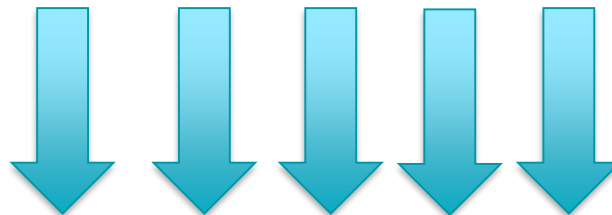
**Medication Administration**

**Education**

**Family Support**

**Assessments**

**Treatments**



Prevention  
of HAP

Skin Care  
and  
Pressure  
Wound  
Prevention

Prevention  
of  
C. difficile

Isolation  
Precautions

CAUTI  
Prevention

How many of you can juggle?  
What if you take your eye off  
the ball for a minute?

CLABSI  
Prevention



Prevention  
of HAP

Skin Care  
and  
Pressure  
Wound  
Prevention

Isolation  
Precautions

Which ball falls?  
Or how many fall?  
How does that impact patient outcomes?

CLABSI  
Prevention

CAUTI  
Prevention



Prevention  
of  
C. difficile

# How do you avoid dropping the ball?

Repetition – Repetition - Repetition  
Diligence

Be a presence on the floor

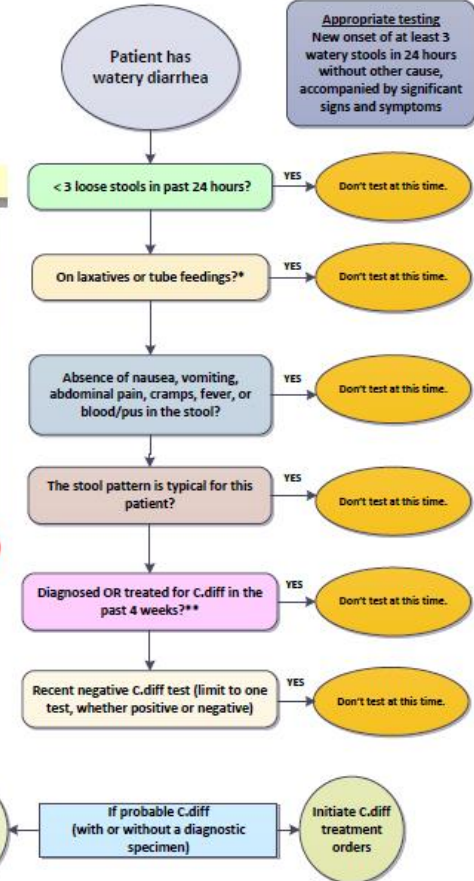
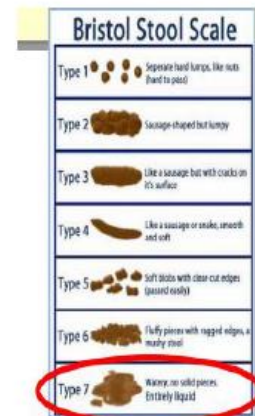
Be open to conversation and questions.

Education – Education - Education

Still unsuccessful?

## Develop a tool!

## C.difficile Diagnostic Specimens



\*Consider stopping laxative/stool softener. If tube feeding or laxatives are long-term, may consider a Nutrition consult prior to ordering a C.diff PCR.

\*\*If severe, recurrent C.diff is suspected, an Infectious Disease consult may be indicated.

# C. Difficile Decision Tree



## C Diff Foundation

C.diff. – Educating and Advocating for the Prevention, Treatments, Clinical Trials, and Environmental Safety of Clostridioides difficile (C.difficile) Infections Worldwide

How to develop?

Don't reinvent the wheel!

There are great tools available.

- Bristol Stool Scale
- CDC – *C. diff* Guidelines and Prevention Resources
- C. Diff Foundation
- IDSA Guidelines

Clinical Infectious Diseases

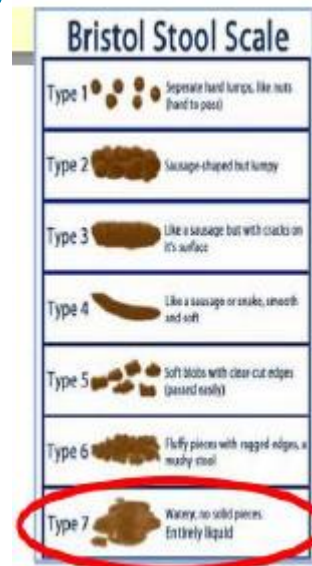
IDSA GUIDELINE



Clinical Practice Guidelines for *Clostridium difficile* Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA)

L. Clifford McDonald,<sup>1</sup> Dale N. Gerding,<sup>2</sup> Stuart Johnson,<sup>2,3</sup> Johan S. Bakken,<sup>4</sup> Karen C. Carroll,<sup>5</sup> Susan E. Coffin,<sup>6</sup> Erik R. Dubberke,<sup>7</sup> Kevin W. Garey,<sup>8</sup> Carolyn V. Gould,<sup>1</sup> Claran Kelly,<sup>9</sup> Vivian Loo,<sup>10</sup> Julia Shaklee Sammons,<sup>6</sup> Thomas J. Sandora,<sup>11</sup> and Mark H. Wilcox<sup>12</sup>

<sup>1</sup>Centers for Disease Control and Prevention, Atlanta, Georgia; <sup>2</sup>Edward Hines Jr Veterans Administration Hospital, Hines, and <sup>3</sup>Loyola University Medical Center, Maywood, Illinois; <sup>4</sup>St Luke's Hospital, Duluth, Minnesota; <sup>5</sup>Johns Hopkins University School of Medicine, Baltimore, Maryland; <sup>6</sup>Children's Hospital of Philadelphia, Pennsylvania; <sup>7</sup>Washington University School of Medicine, St Louis, Missouri; <sup>8</sup>University of Houston College of Pharmacy, Texas; <sup>9</sup>Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts; <sup>10</sup>McGill University Health Centre, McGill University, Montreal, Quebec, Canada; <sup>11</sup>Boston Children's Hospital, Massachusetts; and <sup>12</sup>Leeds Teaching Hospitals NHS Trust, United Kingdom



CDC Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives. Protecting People™

A-Z Index

Search

*Clostridioides difficile* (C. diff)

CDC - C. diff - Info for Clinicians

C. diff

What is C. diff

Your Risk of C. diff

C. diff Guidelines and Prevention Resources

Guidelines

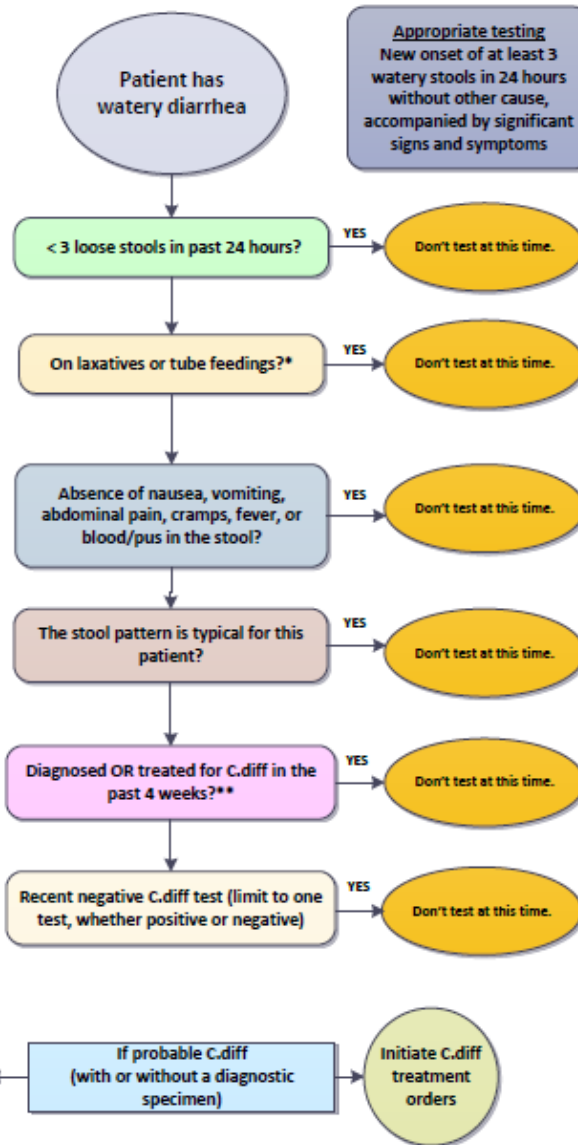
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# C.difficile Diagnostic Specimens



Bristol Stool Scale	
Type 1	Separate hard lumps, like nuts (hard to pass)
Type 2	Sausage-shaped but lumpy
Type 3	Like a sausage but with cracks on its surface
Type 4	Like a sausage or snake, smooth and soft
Type 5	Soft blobs with clear cut edges (passed easily)
Type 6	Fuffy pieces with ragged edges, a mushy stool
Type 7	Watery, no solid pieces. Entirely liquid



\*Consider stopping laxative/stool softener. If tube feeding or laxatives are long-term, may consider a Nutrition consult prior to ordering a C.diff PCR.

\*\*If severe, recurrent C.diff is suspected, an Infectious Disease consult may be indicated.

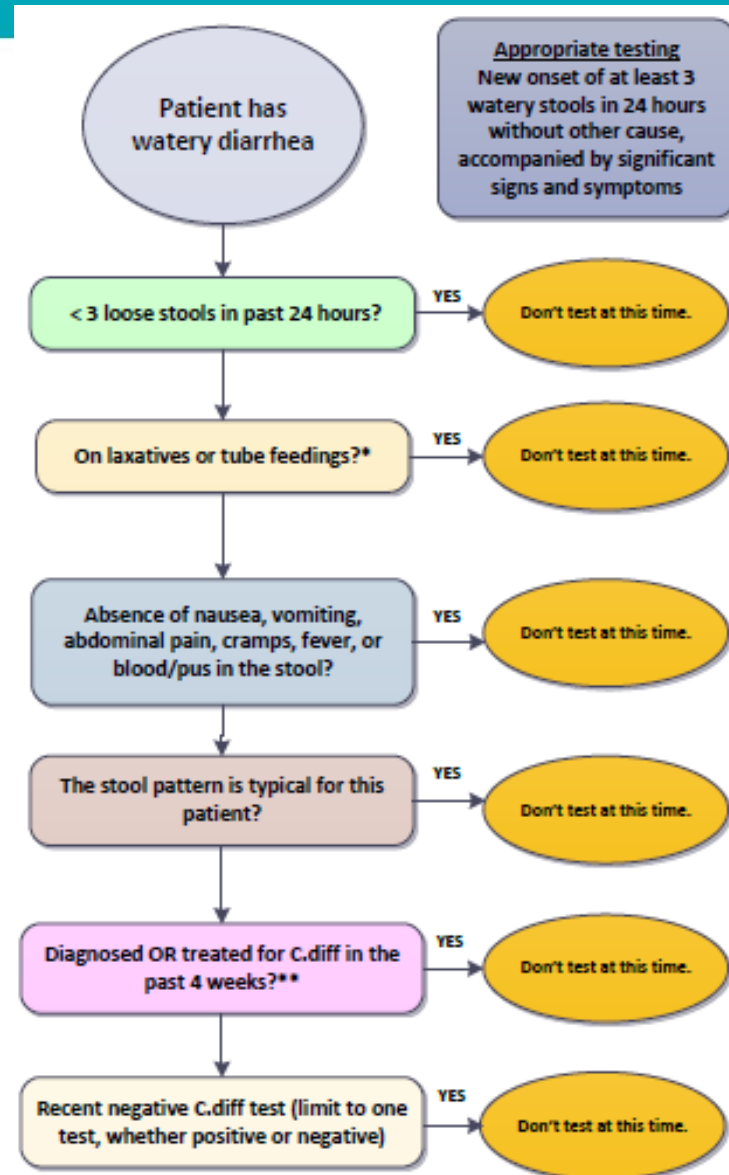


# Develop your own Decision Tree

Start at the beginning  
Define “appropriate testing”

Clinical symptoms and findings

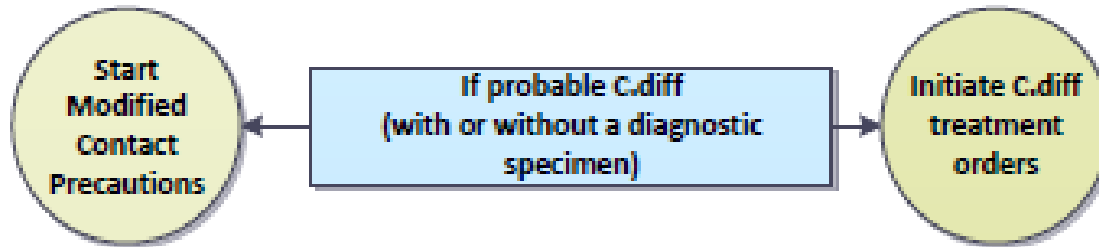
History



# Decision Tree development

One of the most important decisions we made:

**Initiation of isolation as soon as symptoms start – don't wait for confirmation!**



## Once done:

- Reinforce frequently
- Don't be afraid to education on individual components
- Be the squeaky wheel!

# Drilldown Forms

Once again, don't recreate the wheel

- RCA
- Just Culture
- Safety First
- Google Search

## Drilldown Options

Excel

Word Document

One Note

Pen & Paper

But don't be afraid to make it a useful form

Make it your own.

If it doesn't help evaluate the incident, it's a useless document!

# CDI Drill Down Report

<b>Patient</b>	Patient Initials	
	MRN	
	Admit Date	
	Admitting Physician	
	Location of attribution	
	<b>Antibiotics</b>	
	<b>CDI Treatment</b>	
	<b>GI Meds</b>	
<b>Infection- unit completes</b>	Culture date	
	Date Diarrhea started	
	Date Isolation Initiated	
	Bedtrace- #1	
	Bedtrace-#2	
	Bedtrace-#3	
	Hand Hygiene w soap and water? Y/N	
	Isolation documented every shift? Y/N	
	Education documented? Y/N	
	Comments:	
<b>Environmental Services</b>	Isolation cleaning (bleach) done daily	EVS cleans with bleach daily when the Modified Contact Isolation sign is in the caddy outside the room.

Notes from Review Conference:

## CDI Prevention Committee Team Members

Hospitalist  
 AMS Pharmacist  
 Quality Director  
 Infection Preventionist  
 EVS Director  
 Nursing Director  
**Ad Hoc:**  
 Nursing Director  
 Clinical Educator



## CDI Drill Down Report

<b>Patient Demographics</b>	Patient Initials				
	MRN				
	Admit Date				
	Admitting Physician				
	Location of attribution				
	Is the patient a known carrier of CDI? (prior positive test result?)				
<b>Patient History</b>	<b>Does the patient have any of the following risk factors in the prior 60 days:</b>				
	<b>Antibiotics in prior 60 days</b>				
	Does the patient have other symptoms of CDI? Abdominal pain, elevated WBC, temp >38C		Abdominal Pain:	WBC:	Fever:
	<b>PPI at least 3 days per week in the week prior to stool collection</b>				
	Other GI Meds?				
	Has the patient received a laxative or enema in last 24 hours?				
	Has the patient received lactulose, tube feedings or IV contrast in last 24 hours?				
<b>Infection- unit completes</b>	Culture date				
	Date Diarrhea started				
	Has the patient had <3 unexpected and unexplained stools in last 24 hours?				
	Date Isolation Initiated				
	Bedtrace- #1				
	Bedtrace-#2				
	Bedtrace-#3				
	Hand Hygiene w soap and water? Y/N				
	Isolation documented every shift? Y/N				
	Treatment Course				
<b>Environmental Services</b>	Isolation cleaning (bleach) done daily			EVS cleans with bleach daily when the Modified Contact Isolation sign is in the caddy outside the room.	
	Education documented? Y/N				
<b>Notes from Review Conference:</b>	Comments:				
	Comments:				
	Comments:				
	<b>Opportunities</b>		<b>Recommendations</b>		

# Drill Down Sections

## Demographics

Patient Demographics	Patient Initials			
	MRN			
	Admit Date			
	Admitting Physician			
	Location of attribution			
	Is the patient a known carrier of CDI? (prior positive test result?)			
Patient History	<b>Does the patient have any of the following risk factors in the prior 60 days:</b>			
	<b>Antibiotics in prior 60 days</b>			
	Does the patient have other symptoms of CDI? Abdominal pain, elevated WBC, temp >38C	Abdominal Pain:	WBC:	Fever:
	<b>PPI at least 3 days per week in the week prior to stool collection</b>			
	Other GI Meds?			
	Has the patient received a laxative or enema in last 24 hours?			
	Has the patient received lactulose, tube feedings or IV contrast in last 24 hours?			

## Patient History

# Drill Down Sections

## Infection Information

Infection- unit completes	Culture date	
	Date Diarrhea started	
	Has the patient had <3 unexpected and unexplained stools in last 24 hours?	
	Date Isolation Initiated	
	Bedtrace- #1	
	Bedtrace-#2	
	Bedtrace-#3	
	Hand Hygiene w soap and water? Y/N	
	Isolation documented every shift? Y/N	
	Treatment Course	
	Education documented? Y/N	
Environmental Services	Isolation cleaning (bleach) done daily	EVS cleans with bleach daily when the Modified Contact Isolation sign is in the caddy outside the room.
Notes from Review Conference:	Comments:	
	Comments:	
	Comments:	
	Opportunities	Recommendations

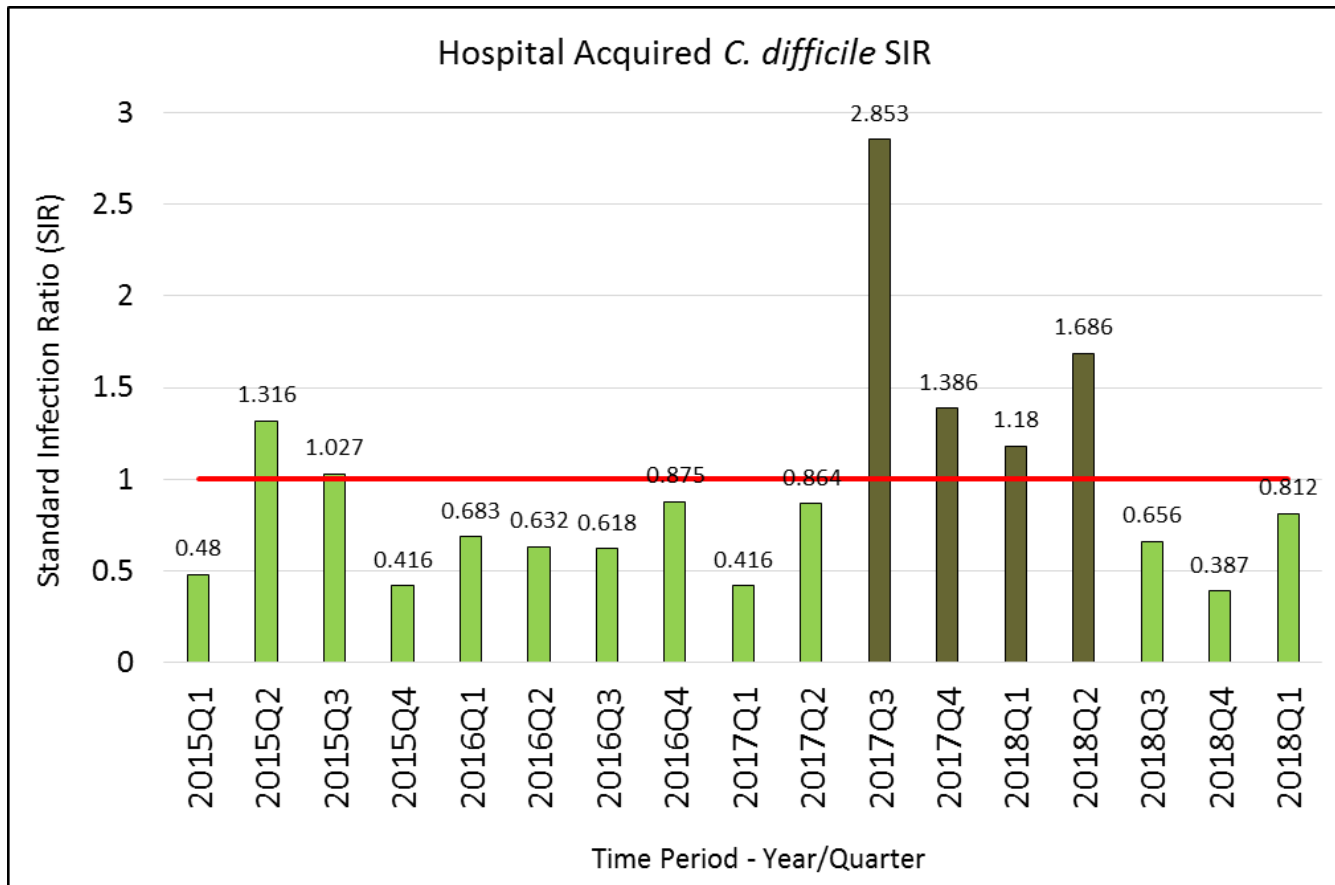
## EVS

## Review Conference Notes



# Results

## Results of continued persistence:



# Questions?

# Learning Assessment Questions

1. A decision tree for ordering C difficile testing should consider
  - a) Stool consistency
  - b) Use of laxatives or other promotility agents
  - c) Frequency of diarrhea
  - d) All of the above
2. A drilldown form for reviewing hospital-acquired CDI cases should include whether patient has recent exposure to antibiotics. True/False

# References

- C. Diff Foundation. (2019) C. Diff Foundation Webpage. Retrieved May 14, 2019 at <https://cdifffoundation.org/>
- McDonald, L., Gerding, D., Johnson, S., . . . Wilcox, M. (2018) Clinical Practice Guidelines for Clostridium difficile Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA), 2018. Downloaded from <https://academic.oup.com/cid/advance-article-abstract/doi/10.1093/cid/cix1085/4855916> on 15 February 2018
- United States Centers for Disease Control and Prevention. (n.d.). *C. diff* Guidelines and Prevention Resources. Retrieved May 15, 2019 from Centers for Disease Control and Prevention: <https://www.cdc.gov/cdiff/clinicians/resources.html>