

# C-Diff: Bridging the gap between policy and practice

Lisa Sheehan and Brandi Tolle



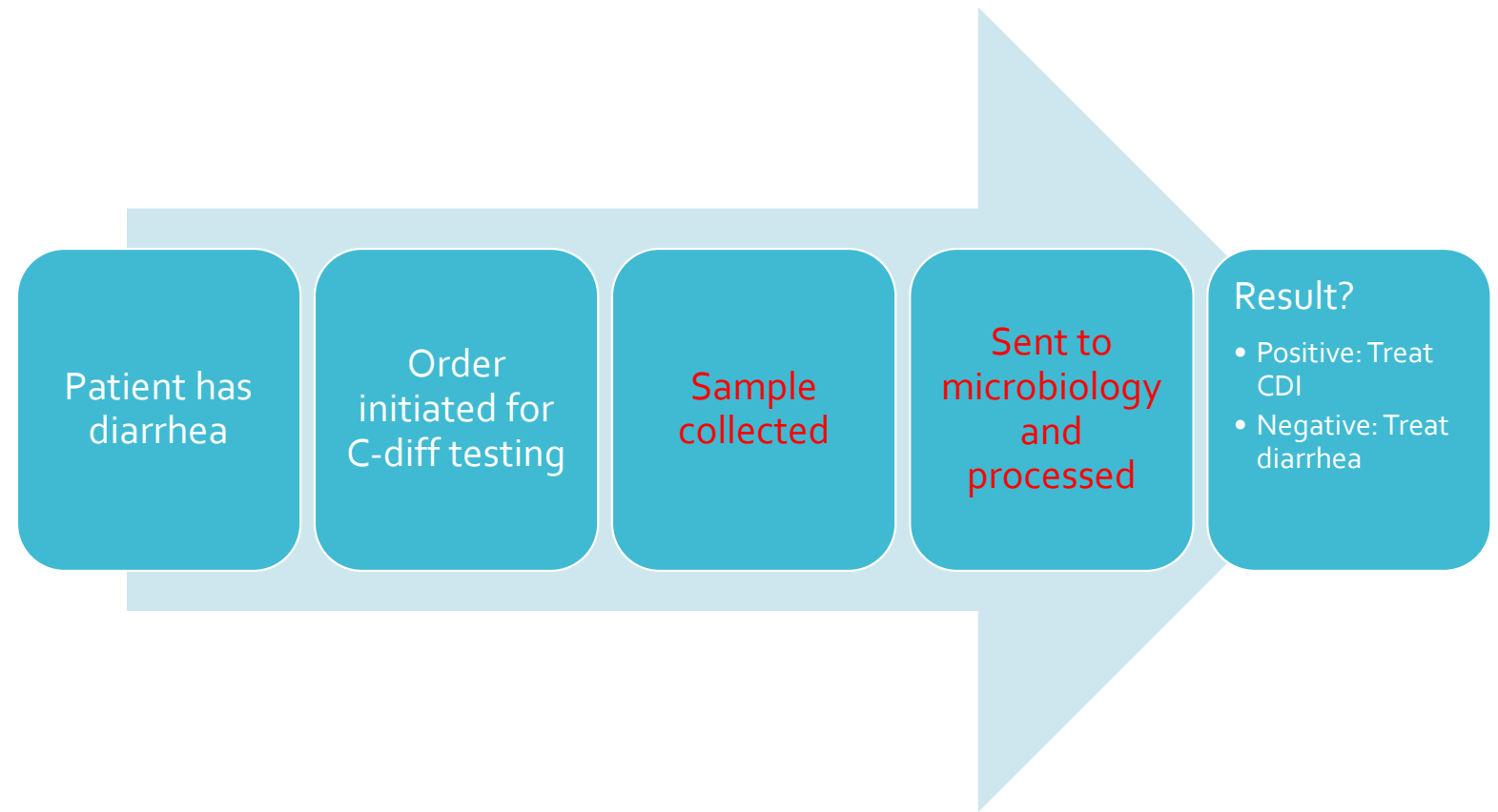
Photo courtesy of:  
[https://www.google.com/search?safe=strict&biw=1920&bih=935&tbn=isch&sa=1&q=PPE+nursing+humor&oq=PPE+nursing+humor&gs\\_l=psy-ab.3...51500.52572.0.52679.6.6.0.0.0.95.415.6.6.0....0...1.1.64.psy-ab..0.1.81...0i30k1j0i24k1.BzeHa\\_OmelU#imgcr=YYKeb1QmhVovkM:&spf=1502468802614](https://www.google.com/search?safe=strict&biw=1920&bih=935&tbn=isch&sa=1&q=PPE+nursing+humor&oq=PPE+nursing+humor&gs_l=psy-ab.3...51500.52572.0.52679.6.6.0.0.0.95.415.6.6.0....0...1.1.64.psy-ab..0.1.81...0i30k1j0i24k1.BzeHa_OmelU#imgcr=YYKeb1QmhVovkM:&spf=1502468802614)

# C-Diff Considerations

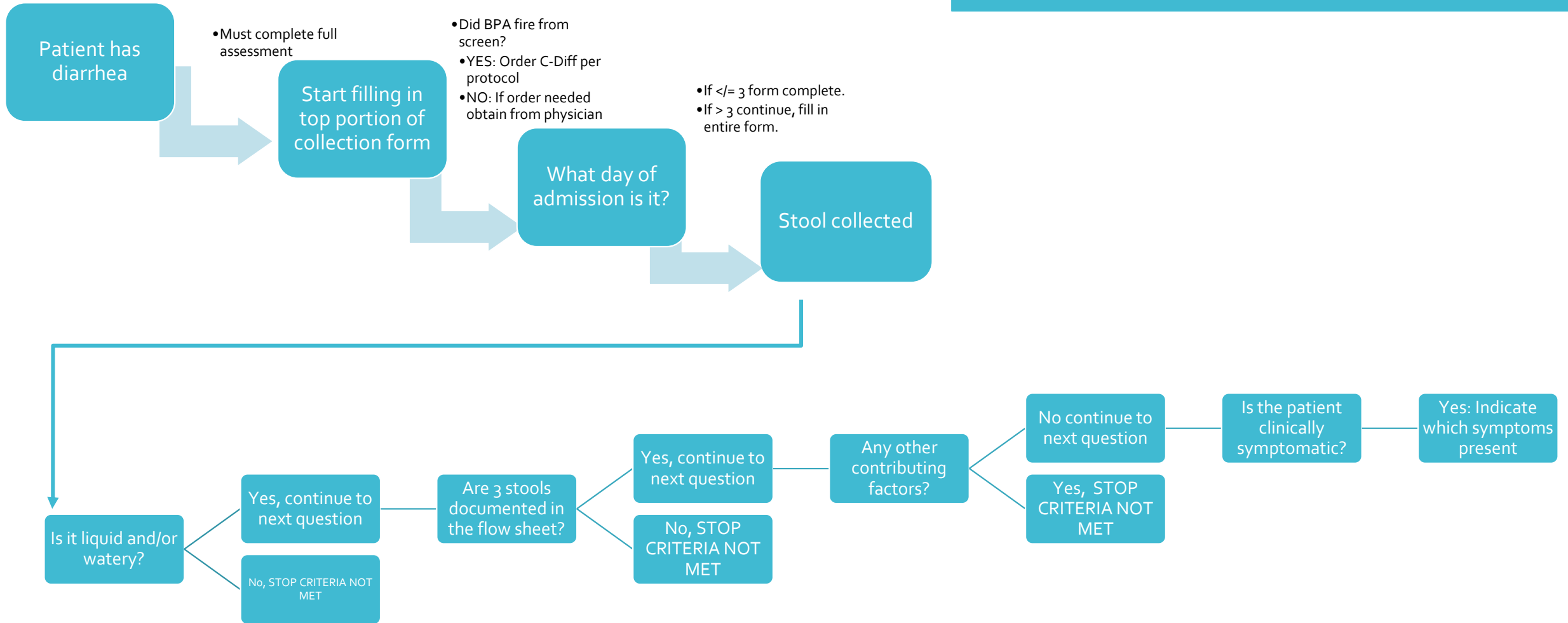
- Do not send stool samples unless there are GREATER than 3 episodes of watery diarrhea in 24 hours.
- Do not send stool samples if patient is on laxatives, new tube feeds, lactulose, stool softeners, bowel prep etc.
- Do not send formed stools for testing.
- Do not send additional stool for testing within 7 days of previous test, if requested the physician will need to override.
- We do not test for cure
- We do not test for colonization
  
- Why?

*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), Clinical Infectious Diseases, Volume 66, Issue 7, 19 March 2018, Pages e1–e48*

## Basic Previous Practice



# Adding Layers: Collection form



*Once completed: 2 nurse signatures required on form with specimen to be sent to lab*

# C-Diff collection form

**C-DIFF COLLECTION FORM:** Completion  
**REQUIRED** prior to sending **EVERY** specimen

Patient Label

Room #: \_\_\_\_\_ Admit Date: \_\_\_\_\_ Date C-Diff PCR collected and sent to lab: \_\_\_\_\_

Number of days since admission (with admission date being day 1): \_\_\_\_\_ (Is it greater than or less than 3?)

Initial C-Diff screening completed within 24 hours of admission?	Yes	NO
Initial C-Diff screening positive for diarrhea and 3 unformed stools in the last 24 hours? (If Yes= send immediately with first stool on the day of OR day after admit)	Yes	NO
Has C-Diff contact isolation been ordered? (if no, order Per Protocol)	Yes	NO
Has a Providers order been placed for C-Diff PCR (Per Protocol ONLY when attached to BPA)	Yes	NO

**Day 1-3 → Stop here (Present on Admission=Community Onset)**

**Day 4 and after → Continue and Complete form (Hospital Onset)**

**Must circle appropriate answer to all 4 questions:**

Is stool liquid and/or watery?	Yes	NO	if NO - CRITERIA NOT MET
Are 3 liquid/watery stools documented in the I/O section within the last 24 hours?	Yes	NO	if NO - CRITERIA NOT MET
Any other factors contributing to diarrhea: such as stool softeners, laxatives, lactulose, medications, tube feeds, bowel prep, etc.?	YES	No	if YES - CRITERIA NOT MET
Is the patient clinically symptomatic?	YES	No	if YES -Circle S/s: Temp > 38.1, Abdominal pain, N/V

If specimen **CRITERIA NOT MET**, discuss criteria with provider to obtain an order to Discontinue C-Diff PCR (**Not a Per Protocol order**)

If C-Diff PCR order has been discontinued or ruled out (negative result) → Discontinue C-Diff Contact Isolation Per Protocol

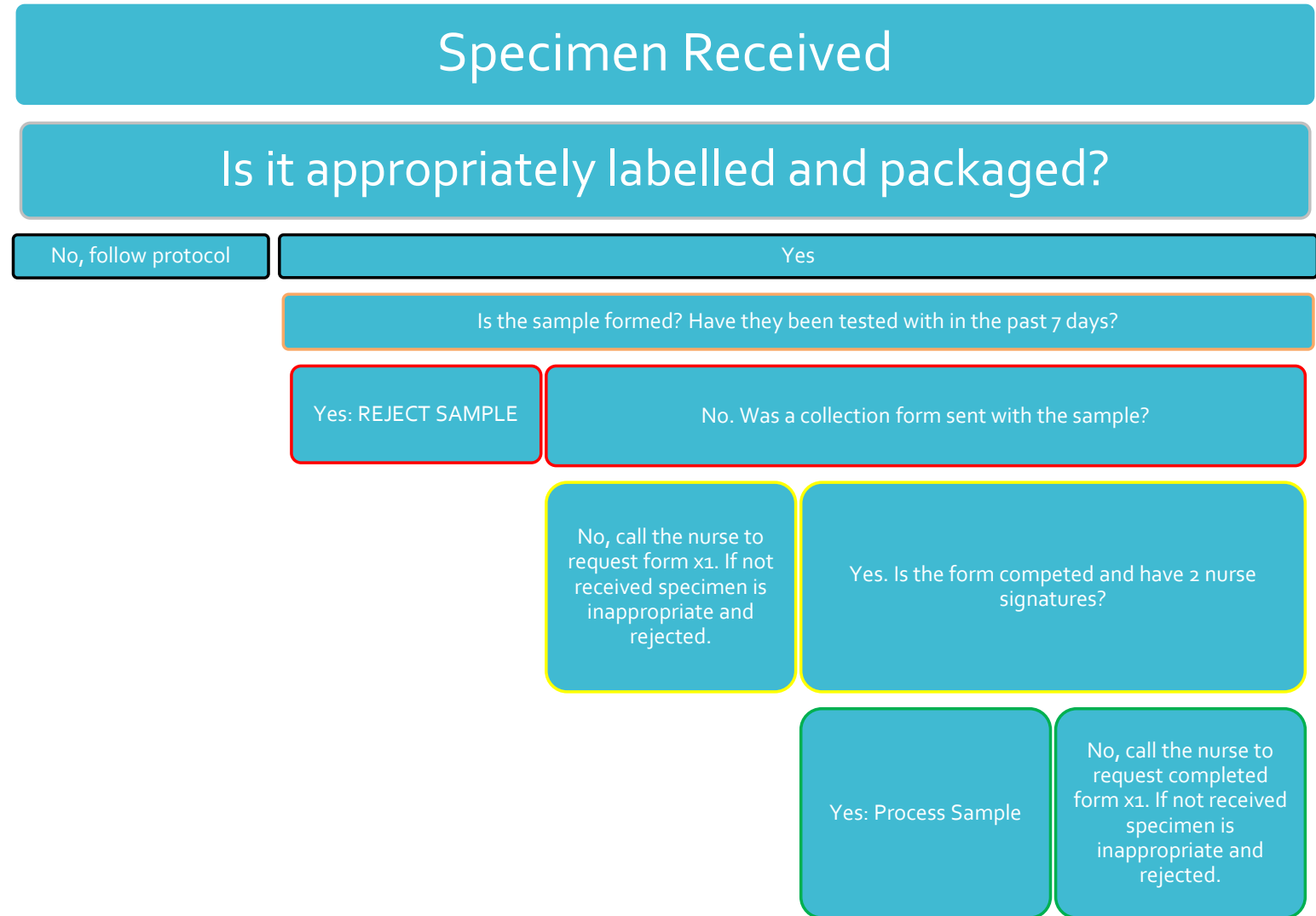
**1<sup>st</sup> Nurse (PRINT NAME)** \_\_\_\_\_

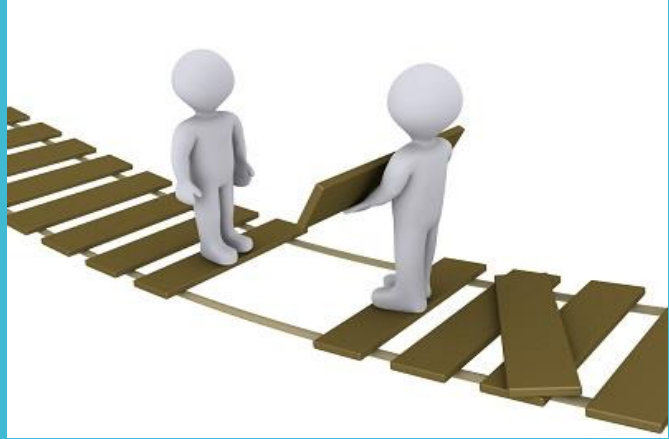
**2<sup>nd</sup> Nurse (PRINT NAME)** \_\_\_\_\_ (**2<sup>nd</sup> Nurse verification REQUIRED**)

**MUST SEND COPY OF COMPLETED FORM WITH STOOL TO LAB OR IT WILL NOT BE PROCESSED**  
**Unit may require it also be turned into manager**

**Questions? Contact Infection Prevention 937-523-5430**

# Adding Layers: Microbiology Lab





# Bridging the Gap

## Education

- Pilot new practice on one unit to work out issues and discover potential barriers.
- Education campaign completed through a team:
  - Infection preventionists
  - Education department
  - Nursing directors and managers
    - Staff meetings and huddle
  - Microbiology Lab
  - Physicians
    - Attended Med staff meeting
    - Flyers and informational newsletters placed in mailboxes, in offices, lounge and work stations.

## Persistence

- Communication of collection form compliance through multiple avenues:
  - First avenue: Calling the patient's nurse. (Lab)
  - Second avenue: Contacting the charge nurse, manager and/or director. (IP)
- Continued education surrounding:
  - Testing appropriateness.
  - Form completion.
  - Contributing factors.

Photo:

<https://www.bing.com/images/search?view=detailV2&ccid=OzC5gP4S&id=2DF8833031272C93D26AoDD928B5AE904CAC1EE4&thid=OIP.OzC5gP4SwNS1La4gAg6DwHaFj&mediarurl=http%3a%2f%2fwww.theveganwoman.com%2fwp-content%2fuploads%2f2014%2fo3%2fHelp-others-go-vegan.jpg&exp=300&expw=400&q=Clip+Art+Bridging+the+Gap&simid=608018357530591435&selectedIndex=22&ajaxhist=0>

# Step-By-Step Guide

**PURPOSE:** To provide step-by-step guidance on clostridium difficile (C-Diff) laboratory collection process.

**TEXT:** When collecting a stool specimen to send for C-Diff testing it requires a **TWO** nurse sign off with the C-Diff collection form. It must be filled out appropriately, have two nurse signatures and be sent to microbiology lab in order to be processed.

**Procedure:**

*NOTE: This procedure guide is only to provide basic collection and form information; it is not a standard of care nor does it replace nursing judgement.*

1. If a patient needs a stool sample sent down to the microbiology lab for c-diff testing, follow the following process:
  - a. Assess the patient in SBAR format, fill out needed flow sheet and documentation requirements and if not a "per protocol" order, speak with the physician.
  - b. If physician order obtained/or per protocol; **DO NOT** click collect until you have all appropriate samples in hand. In this region, we only perform C-Diff molecular PCR testing.
  - c. Fill out the C-Diff collection form per on form directions, indicating the number of days since admission; remember that the first day is day one.
    - i. Example: A patient is admitted to the ICU at 2300 on 2/10/18. You are collecting a stool on 2/12/18.
      1. DAY 1 = 2/10/18
      2. DAY 2 = 2/11/18
      3. DAY 3 = 2/12/18; This means that if collected it is considered community acquired.
      4. If you were to collect it on DAY 4 = 2/13/18, it is now considered hospital caused C-Diff.
  - d. Once the stool sample is on hand and the collection form is completed a **TWO** nurse sign off is required before sending to Lab.
  - e. Once the **TWO** nurses have signed off the stool sample and labelled appropriately, the collection form is completed, a copy in manager's box, the sample and form can be sent down to microbiology for processing.
  - f. Please note:
    - i. If the form is not sent/complete with **TWO** nurses signature it will **NOT** be processed. A different shift can **NOT** sign off on your sample unless witnessed.
    - ii. If the stool specimen is inappropriate, it will **NOT** be processed.
    - iii. If this is a repeat within 7 days, it will **NOT** be processed without a physician override.



# Bridging the Gap



## Teamwork

- Multifaceted approach that involves added layers:
  - Nursing
  - Microbiology
  - Infection Prevention
- Constant communication between the three disciplines.
- Other members of the team include:
  - Pharmacy
  - EVS
  - CSP
  - Other staff

## Follow through

- Collection forms received from the Lab and reviewed.
  - Managers and Directors given feedback on collection form compliance and accuracy.
  - Chart reviews and compliance reports sent out to the nursing leaders.
- Can provide some real time feedback to staff when inappropriate testing occurs.

Photo:

[https://www.google.com/search?safe=strict&biw=1920&bih=935&tbm=isch&sa=1&ei=fsAOW5agFYLazwK2pIS4CA&q=bridging+the+gap&oq=bridging+the+gap&gs\\_l=img.3..ol10.241218.252541.o.252822.16.13.o.3.3.o.108.1175.10j3.13.o.....1c.1.64.img..o.16.1266...oi67kajoi1ok1.o.LlcsW2UByu8#imgrc=RrzSB-vo3DWieM:&spf=1527681404996](https://www.google.com/search?safe=strict&biw=1920&bih=935&tbm=isch&sa=1&ei=fsAOW5agFYLazwK2pIS4CA&q=bridging+the+gap&oq=bridging+the+gap&gs_l=img.3..ol10.241218.252541.o.252822.16.13.o.3.3.o.108.1175.10j3.13.o.....1c.1.64.img..o.16.1266...oi67kajoi1ok1.o.LlcsW2UByu8#imgrc=RrzSB-vo3DWieM:&spf=1527681404996)

# Filling out the FORM

**C-DIFF COLLECTION FORM:** Completion **REQUIRED** prior to sending **EVERY** specimen

Patient Label

Room #: **2030** Admit Date: **2/10/18** Date C-Diff PCR collected and sent to lab: **2/13/18**

Number of days since admission (with admission date being day 1): **4** (Is it greater than or less than 3?)

Initial C-Diff screening completed within 24 hours of admission?	<input checked="" type="radio"/> Yes	<input type="radio"/> NO
Initial C-Diff screening positive for diarrhea and 3 unformed stools in the last 24 hours? (If Yes= send immediately with first stool on the day of OR day after admit)	<input type="radio"/> Yes	<input checked="" type="radio"/> NO
Has C-Diff contact isolation been ordered? (If no, order Per Protocol)	<input checked="" type="radio"/> Yes	<input type="radio"/> NO
Has a Providers order been placed for C-Diff PCR (Per Protocol ONLY when attached to BPA)	<input checked="" type="radio"/> Yes	<input type="radio"/> NO

DAY 1-3

**Day 1-3 → Stop here (Present on Admission=Community Onset)**

**Day 4 and after → Continue and Complete form (Hospital Onset)**

**Must circle appropriate answer to all 4 questions:**

Is stool liquid and/or watery?	<input checked="" type="radio"/> Yes	<input type="radio"/> NO	if NO - CRITERIA NOT MET
Are 3 liquid/watery stools documented in the I/O section within the last 24 hours?	<input type="radio"/> Yes	<input checked="" type="radio"/> NO	if NO - CRITERIA NOT MET
Any other factors contributing to diarrhea: such as stool softeners, laxatives, lactulose medications, tube feeds, bowel prep, etc.?	<input checked="" type="radio"/> YES	<input type="radio"/> No	if YES - CRITERIA NOT MET
Is the patient clinically symptomatic?	<input checked="" type="radio"/> YES	<input type="radio"/> No	if YES -circle s/s: Temp > 38.1, Abdominal pain, N/V

DAY 4 ON

If specimen **CRITERIA NOT MET**, discuss criteria with provider to obtain an order to Discontinue C-Diff PCR (**Not a Per Protocol order**)

If C-Diff PCR order has been discontinued or ruled out (negative result) → Discontinue C-Diff Contact Isolation Per Protocol

1<sup>st</sup> Nurse (PRINT NAME) \_\_\_\_\_

2<sup>nd</sup> Nurse (PRINT NAME) \_\_\_\_\_ (2<sup>nd</sup> Nurse verification **REQUIRED**)

**MUST SEND COPY OF COMPLETED FORM WITH STOOL TO LAB OR IT WILL NOT BE PROCESSED**  
Unit may require it also be turned into manager

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In this example,  
**CRITERIA NOT MET**

# The road so far

- Initiated PILOT in February 2018 on 4 North.
  - Moved to house wide for SRMC and MHUH on March 15, 2018. March ended with ZERO HA-CDI.
- January – April 2018 = 7 Hospital Acquired C-diff (SRMC)
  - In April we had 3 HA-CDI, 2 of which were not appropriate. The process is not perfect but it is improving every week.
- Quarter 1, 2018:
  - NHSN number predicted = 13.093
  - Actual number = 4
  - 2018 1<sup>st</sup> Quarter SIR (SRMC) = 0.306

*FYI: January – April 2018 = 0 Hospital Acquired C-diff (MHUH)*

- **May 2018 improvement examples:** There have been 3 instances (so far) where the micro-lab has used the new process to halt inappropriate testing.

## References

Centers for Disease control and Prevention, Healthcare-associated infections. Clostridium difficile infection.

[https://www.cdc.gov/hai/organisms/cdiff/cdiff\\_infect.html](https://www.cdc.gov/hai/organisms/cdiff/cdiff_infect.html), last accessed May 30, 2018.

L Clifford McDonald, Dale N Gerding, Stuart Johnson, Johan S Bakken, Karen C Carroll, Susan E Coffin, Erik R Dubberke, Kevin W Garey, Carolyn V Gould, Ciaran Kelly, Vivian Loo, Julia Shaklee Sammons, Thomas J Sandora, Mark H Wilcox; 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), *Clinical Infectious Diseases*, Volume 66, Issue 7, 19 March 2018, Pages e1–e48, <https://doi.org/10.1093/cid/cix1085>

Original Collection Form developed by Tara Barron, Infection Preventionist at Mercy Health – St. Vincents

Power-point adapted from multiple previous educational materials; including a physician education made by Mary Barnett, Infection Preventionist Mercy Health - Clermont