



May 21, 2019

## Agenda

- C.diff Guidelines
- Case Discussion
- Open Discussion



# **IDSA Practice Guidelines: C.diff Infection**

Chloe Bryson-Cahn, MD

UW Medicine | Harborview Medical Center

# 2017 C.diff Guidelines

- **Selective / staged testing**
- **New treatment paradigm**
- **Emphasis on:**
  - Infection Control Procedures
  - **Antibiotic Stewardship Teams**
- **Mention of FMT for rCDI**
- **CDI Treatment in Children**



# Testing

- 2010 Guideline:
  - EIA has high false negative -> use NAAT/ PCR
- 2017 Update:
  - NAAT/PCR too sensitive ?? overdiagnosis ->
    - Selective criteria to test, OR
    - Staged testing



# Terminology

- GDH – glutamate dehydrogenase test
  - Present in toxogenic and non-toxogenic C.diff
- EIA – enzyme immunoassay test (toxin test)
  - many commercially available
- NAAT/PCR – nucleic acid amplification testing



# QUESTION

How is your hospital testing for C.diff?

- A) NAAT/PCR
- B) Multi-step Algorithm
- C) Not sure



Test only if NO laxatives &  
3+ unformed stools in a day

Yes

NAAT

No

Multi Step Algorithm

GDH -> EIA  
(NAAT arbitrated)

NAAT -> EIA



Test only if NO laxatives &  
3+ unformed stools in a day

Yes

NAAT

No

Multi Step Algorithm

GDH -> EIA  
(NAAT arbitrated)

NAAT -> EIA



Test only if NO laxatives &  
3+ unformed stools in a day

Yes

NAAT

No




Multi Step Algorithm

GDH -> EIA  
(NAAT arbitrated)


NAAT -> EIA



# UW PowerPlan

Infectious Diarrhea, Enteric Pathogen Lab Tests HMC (Initiated Pending), Ordered as: Enteric Pathogen Lab Tests, Infectious Diarrhea HMC	
	Laxatives administered within 48 hours: senna 17.2 mg, at June 02, 2018 21:12:00 PDT C. difficile testing is generally NOT indicated at this time. Contact Lab Medicine Resident on-call to place order, if testing still indicated.
<input type="checkbox"/>	Infection Control Precautions <span style="float: right;">Type of Precaution: Contact Enteric</span>
	 <== <b>PRIMARY TESTS: Select ONLY ONE.</b> See guidance document.

Discern: (1 of 1)

 **Laxative Administration / C. difficile Testing**

Patient received laxatives within 48 hours: senna 17.2 mg at June 02, 2018 21:12:00 PDT

**C. difficile testing is generally NOT indicated for patients receiving laxatives.**

Contact Lab Medicine Resident on-call to place order, if testing still indicated.

Cancel Order



# Repeat Testing

- “Do not perform repeat testing (within 7 days) during the same episode of diarrhea & do not test stool from asymptomatic patients”



# Treatment

- **Non-severe**
  - WBC  $\leq$  15,000 cells/mL
  - & serum Cr  $\leq$  1.5 mg/dL
- **Severe**
  - WBC  $\geq$  15,000 cells/mL
  - OR serum Cr  $\geq$  1.5 mg/dL
- **Fulminant**
  - Hypotension, shock, ileus, megacolon



# QUESTION

What antibiotic are you using for C.diff?  
Initial Episode, Non-Severe

- A) Metronidazole
- B) Vancomycin
- C) Fidaxomicin
- D) Not sure



# Initial Episode

## Non-Severe

### Recommended Treatment<sup>a</sup>

- VAN 125 mg given 4 times daily for 10 days, OR
- FDX 200 mg given twice daily for 10 days
- Alternate if above agents are unavailable: metronidazole, 500 mg 3 times per day by mouth for 10 days

## Severe

- VAN, 125 mg 4 times per day by mouth for 10 days, OR
- FDX 200 mg given twice daily for 10 days



# Initial Episode

## Fulminant

- VAN, 500 mg 4 times per day by mouth or by nasogastric tube. If ileus, consider adding rectal instillation of VAN. Intravenously administered metronidazole (500 mg every 8 hours) should be administered together with oral or rectal VAN, particularly if ileus is present.



# 1<sup>st</sup> Recurrence

- Got metro initially:
  - VAN 125 mg PO q6h x 10 days
- Got standard VAN initially:
  - VAN tapered and pulsed OR
  - FDX 200 mg PO q12h x 10 days



# 2+ Recurrence

- VAN tapered and pulsed, OR
- VAN 125 mg PO q6h x 10 days followed by rifaximin, OR
- FDX 200 mg PO q12h, OR
- Fecal microbiota transplant



# Stewardship

- Minimize frequency/ duration of high-risk abx and number of agents prescribed
- Implement an antibiotic stewardship program
- Target antibiotics to the local epi; consider restricting FQs, clinda, cephalosporins



# Areas of Insufficient Data: no recommendation

- Screening for asymptomatic carriage
- PPI restriction
- Probiotics for primary prevention or recurrence
- Anti - c.diff agent for prophylaxis
- Extended pulsed fidaxomicin
- Bezlotoxumab for rCDI



# Infection Control

- Surveillance and definitions: Pages e2-e3
- Preemptive precautions: Page e4
- Hand hygiene: Page e4
- Cleaning: Page e5



A brown poop emoji with large white eyes and a smiling mouth is positioned on a grey gravel surface. A blue speech bubble points towards the emoji from the upper right.

Questions?