

## ID CORNER

**New *Clostridium difficile* Infection Guidelines. Pearls for the Hospitalist**Christian Rojas-Moreno<sup>1</sup><sup>1</sup>Division of Infectious Diseases, Department of Medicine, University of Missouri, Columbia, Missouri

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*Am J Hosp Med* 2018 Apr;2(2):2018.013 <https://doi.org/10.24150/ajhm/2018.013>**Clinical vignette**

A 40 year-old female with no significant past medical history had a 3-day history of runny nose, headache, cough and post-nasal drip. Her physical exam showed erythematous pharyngeal wall but it was otherwise unremarkable. Her primary care provider prescribed amoxicillin-clavulanic acid for 7 days. She finished the antibiotic course, her symptoms gradually improved but she developed watery diarrhea up to 5 times per day. Her vital signs, blood cell counts, renal function and chemistries were normal. Her *Clostridium difficile* test returned positive. What treatment would you recommend for this patient?

- a. Oral metronidazole
- b. Oral vancomycin
- c. Intravenous metronidazole
- d. Rifaximin

There are two teaching points in this case: 1) this patient should not have gotten antibiotic therapy for what was most probably a viral illness; 2) even for non-severe cases of *Clostridium difficile* infection (CDI) such as this, the recommended treatment now is oral vancomycin. Oral metronidazole should be used only in non-severe cases if oral vancomycin or fidaxomicin cannot be obtained. Intravenous metronidazole is only used as adjunctive therapy in fulminant CDI. Rifaximin is used as a chaser following completion of oral vancomycin in recurrent CDI.

**Key recommendations from the 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)**

1. Nucleic acid amplification test (NAAT) alone is sufficient for testing if there is an institutional policy to not submit stool specimens on patients receiving laxatives and to submit stool specimens only from patients with unexplained, new onset diarrhea (3 or more stools in 24 h). Otherwise, use stool toxin test within a multiple step algorithm.
2. Do not repeat testing during the same episode of diarrhea and do not test formed stools (asymptomatic patients).
3. After resolution of diarrhea, contact precautions should be continued for at least 48 hours.
4. Use soap and water or an alcohol-based product for hand hygiene before and after contact of a patient with CDI.
5. Attempt to reduce the frequency, duration and number of antibiotics prescribed. Specifically, restrict the use of clindamycin, fluoroquinolones and cephalosporins. Antibiotic stewardship programs should exist in every hospital.
6. There is insufficient evidence to recommend discontinuation of proton

pump inhibitors or use of probiotics as measures to prevent CDI.

7. Discontinue therapy with the inciting antibiotic as soon as possible, as this may influence the risk of CDI recurrence.
8. For a first episode of CDI, severe or non-severe, use vancomycin or fidaxomicin. Metronidazole should only be used when access to vancomycin or fidaxomicin is limited, and only in non-severe cases.
9. For fulminant CDI (megacolon, hypotension or shock, ileus), oral vancomycin 500 mg 4 times a day is recommended. If ileus is present, rectal vancomycin should be added. Intravenous metronidazole 500 mg every 8 hours should be administered together with oral or rectal vancomycin, particularly if ileus is present.
10. Treat a first recurrence of CDI with oral vancomycin pulse and taper or a 10-day course of fidaxomicin rather than a second standard 10-day course of vancomycin, which could be considered if the primary episode was treated with metronidazole.
11. For patients with > 1 recurrence, the options are: vancomycin in a tapered and pulsed regimen, vancomycin for 10 days followed by rifaximin for 20 days, fidaxomicin, or fecal microbiota transplantation.
12. There is insufficient evidence to recommend extending or restarting anti-CDI treatment for patients who require antibiotics for other infections.

#### Notes

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#### Reference:

McDonald et al. 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). *Clin Infect Dis* 2018. <https://doi.org/10.1093/cid/cix1085>.