C. difficile Pediatric Clinical Practice Guideline

This clinical guideline has been developed to ensure appropriate diagnosis, evaluation, and treatment for pediatric patients presenting with *C. difficile* associated diarrhea/disease. Please direct any questions to Jenny Jubulis, MD, at 662-5522.

The diagnosis of *C. difficile* disease requires positive stool testing for toxigenic *C. difficile* or its toxins. Discontinuing or shortening the course of non-*C. difficile* antibiotics (especially clindamycin, cephalosporins, and/or flouroquinolones) is strongly recommended.

Classification of *C. difficile* Disease:

Mild/Moderate Disease: 3 or more unformed stools in 24 hours

Severe Disease: 3 or more unformed stools in 24 hours
AND
Peripheral White Blood Cell Count over 15,000/uL OR Creatinine > 50% of baseline

Severe, Complicated Disease: 3 or more unformed stools in 24 hours
AND
Peripheral White Blood Cell Count over 15,000/uL OR Creatinine > 50% of baseline
AND, at least one of the following:

- **Hypotension**
- **Toxic Megacolon**
- **Ileus**
- **Need for a colectomy**
- **Clinical or radiographic evidence of bowel perforation**
- **CT evidence of pancolitis**
- **Critical care admission for illness related to *C. difficile* infection**

Treatment

Initial episode of mild or moderate disease	**Metronidazole PO 7.5 mg/kg/dose Q6 hours for 10-14 days (max 500 mg Q6 hours)**
Initial episode of severe disease	**Vancomycin PO 12.5 mg/kg/dose Q6 hours for 10-14 days (max dose 125 mg Q6 hours)**
Initial episode of severe, complicated disease	**Vancomycin PO + metronidazole IV-same doses as above If complete ileus, consider ID and GI consults for adding rectal installation of vancomycin.**
First recurrence	**Same therapy as for initial episode**
Second recurrence	**PO vancomycin in a tapered regimen: 12.5 mg/kg Q6 hours x 14 days (max 125 mg Q6 hours) 12.5 mg/kg BID x 7 days (max 125 mg BID) 12.5 mg/kg Qday x 7 days (max 125 mg Qday) 12.5 mg/kg every other day x 14 days (max 125 mg every other day) **Stool transplant remains experimental in this population**

Patient/Family/Provider Education:

1. **Encourage patients, families, and providers to clean bathrooms after each bowel movement, using bleach and disposable paper towels.**
2. **Use soap and water to wash hands. Alcohol-based hand sanitizers do not kill *C. difficile* spores.**
3. **Hospitalized patients with *C. difficile* associated diarrhea require enteric precautions.**
4. **At the conclusion of treatment for *C. difficile*, no test of cure is indicated.**

The following therapies have no role in the *treatment* of *C. difficile* associated diarrhea and may be harmful to patients:

- **Probiotics**
- **Binding agents (cholestyramine, colestipol)**
- **Antiperistaltic agents**
- **Proton-pump inhibitors**
- **Rifampin**
- **Rifaximin**

The following therapies have no role in the *prevention* of *C. difficile* associated diarrhea, even in patients with a history of *C. difficile* infection/disease who are receiving antibiotics:

- **Metronidazole**
- **Vancomycin**

This clinical guideline has been developed by the Pediatric Antimicrobial Stewardship Program at Maine Medical Center and is based on the recommendations from the American Academy of Pediatrics, Red Book: 2012, Report of the Committee on Infectious Disease and the 2010 Clinical Practice Guidelines for *Clostridium difficile* in Adults, Infectious Disease Society of America.

Algorithms are not intended to replace providers' clinical judgement or to establish a single protocol. Some clinical problems may not be adequately addressed in this guideline. As always, clinicians are urged to document management strategies. *Last revised September 2013, reviewed May 2014*.

The Barbara Bush Children's Hospital
At Maine Medical Center