CLOSTRIDIUM DIFFICILE MANAGEMENT PATHWAY
UNIVERSITY HEALTH SYSTEM

When a patient has new onset of diarrhea AND current or previous antibiotic use within 2 months,
1. d/c antibiotics if possible, 2. place patient in private room and enhanced contact precautions, 3. wash hands followed by use of hand sanitizer to prevent transmission, 4. send stool for C.difficile PCR assay, 5. consider empiric therapy for moderate to severe cases, and 6. avoid antiperistaltics.

Treatment of relapses:

Patient has diarrhea and repeat PCR for C.difficile is positive
Repeat initial regimen, but should stratify and treat based on severity.

Second relapse
Retreat with vancomycin 125mg po tid + Lactobacillus 1 packet or 3 tablets po tid x 1 month *

Third relapse
Treat with vancomycin 125 mg po qid x 10 days followed by taper 125 mg tid x 1 week, 125 mg bid x 1 week, 125 mg qd x 1 week, 125 mg MWF x 2 weeks, then discontinue and observe

Consider ID/ GI consult for management

*Mild diarrhea with no systemic symptoms (fever, leukocytosis)
Stop Antibiotics if possible and observe

Moderate symptoms
Start Metronidazole 500mg po tid

Is fever and abdominal pain improving by 2-3 days? Is diarrhea improving (NOT resolved) by 3-5 days?

If No, consider change to vancomycin 125mg po qid

If Yes, continue treatment for 10 days

If No, consult GI or surgery for Colonoscopy/ other diagnosis

Severe disease
Patients with severe disease, creatinine > 1.5x premorbid level OR 2 of the following: age >60, fever >100.9, albumin <2.5 mg/dl, peripheral WBC >15000 cells/mm3, OR Pseudomembranes on colonoscopy or ICU care required for C difficile

Vancomycin* 125 mg po q6h x 10 days

*Use vanc injection for patients via PEG tube or NG tube and inpatients

Severe ileus/abdominal sepsis AND/OR devastating diarrhea or vomiting, OR lactate ≥5mmol/L or WBC ≥20,000 per ml or significant colonic dilatation (>7 cm)

Surgical consult for surgical management should be obtained; ID consult also advised; GI for colonoscopy

Start metronidazole 500mg iv q6h + vanco 500 po qid via ng tube + 500mg rectally

Patients with diarrhea should immediately be placed on enhanced contact isolation. Hygiene with soap and water followed by hand sanitizer after contact with the patient is mandatory.

Contact-enhanced precautions should be maintained throughout entire hospitalization as of January 2016

Repeat testing test-of-cure not necessary

*Do not use Lactobacillus in critically ill or immunocompromised patients
INFORMATION ON CLOSTRIDIUM DIFFICILE

Clinical Relevance:

• Anaerobic gram-positive spore-forming bacillus

• Colonizes colon in 3% healthy adults and 10-30% hospitalized pts

• C. difficile causes 20% of antibiotic associated diarrheas & >95% of pseudomembranous colitis

• Risk factors: Antibiotic Use (especially clindamycin, cephalosporins, quinolones), Proton Pump Inhibitors, Increased Age, Hospitalization, Renal failure, Multiple Co-morbidities, Enteral feedings

• Clinical Manifestations: diarrhea, fever, cramps, high WBC; in severe cases, WBC >15k, abdominal distension, constipation, ileus, vomiting, renal failure or sepsis. Colonic manifestations are colitis/pseudomembranous colitis, toxic megacolon; Extra-colonic manifestations rare – few reported cases of enteritis, reactive arthritis

• Tests: At our facilities, PCR is done routinely and has increased sensitivity versus EIA toxin testing. Repeat testing not indicated unless clinical suspicion is very high and must be approved by the microbiology lab or Infectious Diseases. Culture not done for diagnostic purposes. Do not send test of cure after diarrhea resolves.

• Do not order routine stool cultures or O&P in patients who have been in the hospital > 72 hrs (extremely low yield!) unless immunosuppressed

• Fever and abdominal pain usually improves in 2-3 days and diarrhea in 3-5 days. Do not consider treatment failure unless the diarrhea is not improving in 5 days. If diarrhea persists >5-7d, question diagnosis or consider concurrent IBD, lactase deficiency, etc.

• 5-50% of patients will relapse after a successful course of therapy. Re-treatment with the original treatment regimen will nearly always be successful. 25-30% of these patients will have multiple recurrences (up to 10) regardless of choice of therapy. Re-treatment with antibiotics in the weeks to months after a C.diff episode GREATLY increases the risk of relapse – AVOID antibiotics if possible

Treatment:

• Principles: + PCR, d/c implicated abx, avoid antiperistaltics, infection control (enhanced contact isolation) +/- metronidazole or vancomycin (based on severity).

• Antibiotic guidelines: IDSA, CDC, SHEA - metronidazole is preferred treatment for mild to moderate symptoms as vancomycin is considerably more expensive than metronidazole ($16-68/day vs $0.12/day). Vancomycin is more effective for severe disease, however and should be used as first line therapy in patients with severe disease or complications (toxic megacolon, pseudomembranes on colonoscopy, or 2 or more of the following age >60, fever >100.9, albumin <2.5 mg/dl, peripheral WBC >15000 cells/mm3.

• Seriously ill or metronidazole failure: vancomycin 125-500 mg PO (or J-tube, or rectally) qid. IV vancomycin will be reconstituted and given orally for inpatients and patients with nasogastric tubes or PEG tubes

• Supportive care: IV hydration or oral fluids

• Avoid antiperistaltics (Lomotil, loperamide, opiates). They increase duration of symptoms and may be harmful (controversial).
• Infection control: private room, enhanced contact precautions, washes hands with soap and water 
  (alcohol-based hand rub does not kill spores reliably). Use of gloves does not preclude hand hygiene!!

• If need systemic abx for ongoing infection – try to discontinue or change to antibiotics with a lower 
  propensity to cause C.diff along with specific therapy for C.diff infection

• Ileus or vomiting: IV Metronidazole 500mg q6h +/- Vancomycin PO (500mg qid) by NG/ jejunal tube or 
  rectal tube or both

• Surgery: total colectomy if severely ill & unresponsive to PO vanco +/- IV metro, especially if toxic 
  megacolon

**Treatment of Multiple Relapses: Very difficult to manage – call Infectious Diseases or GI for assistance**

**REFERENCES**

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