Clostridium difficile (C.diff) Screening and Risk Assessment Tool for Inpatient Admission

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Objectives

1. Early assessment of patients with Diarrhea (Hospital days 1-3)
2. Prevention of over testing (hospital days 4 and greater)
Reason for Action/Scope

• There are 20.9 cases of hospital onset Clostridium difficile infections (HO-CDI) per month with a cost per case of $15,200

• HO-CDI can be reduced with early detection of CDI

• Judicious selection of proton pump inhibitors

• Meticulous attention to environmental disinfection
Solution Approach

• Standardize processes for *C-difficile* screening on admission starting in the ED/Urgent care or direct admits
• Review risk factors to prevent HO
• Educate nursing on empiric isolation while waiting for *C-difficile* results
• Educate all staff on the proper precautions to use and the importance of environmental cleaning of room and equipment
C. difficile Screening Tool

To be completed by ED/Urgent Care RN after MD writes admit order or by floor RN. Check the box that applies:

• If patient has active diarrhea: Implement Enhanced Contact Precautions and RN executes standing order for C. difficile toxin test

• If patient has a hx of C. difficile <60 days and no diarrhea, implement Enhanced Contact Precautions. No testing required
Risk Assessment

Inpatients: Inpatient RN completes; Check all boxes that apply. If 4 or more boxes are checked, scan the form to Pharmacy. (4 or more boxes = patient is at high risk for developing C. diff infection; Clinical Pharmacist will assess medication therapy as appropriate)

- Know hx of CDI
- Age > 65
- Contact w/healthcare facility in past 60 days (acute care/Rehab, SNF, outpt procedure)
- Use of Proton Pump Inhibitors (PPI’s – Protonix) or Histamine-2-Receptor Antagonists (H2RSs - Pepcid) in past 60 days
- Use of ABX in past 60 days
- Pt has a hx of:
  - Inflammatory Bowel Disease
  - Imunosuppression (chemotherapy, HIV, transplant pt, chronic steroids: prednisone >20 mg/day)
  - Hemodialysis
C. difficile Algorithm (Hospital Day 1-3)

- Hospital Day 1-3
- Send any loose/unformed stool (do not need 3 stools within 24 hours).
- Identify any potential C. diff cases early
- Treat and isolate patients appropriately
- **Standing Order for sending Stool for C. diff**
  - For Hospital Day 1-3 only- see Algorithm
  - RN writes in MD orders, “Stool for CD Toxin per Standing Order”
  - RN communicate with MD that patient has diarrhea and that a stool was sent for C.diff per Standing Order. (MD may decide to change meds, review electrolytes, give fluids, etc)
**C. difficile** Algorithm (Hospital Day 4 and Greater)

Think about the following before sending Stool for C.diff:

- **Is the patient on Active Treatment for C.diff and has diarrhea?**
- **If Yes** - Contact the MD to discuss further treatment/recommendations.
- **No further stool testing for C.diff required.**

**Has the patient received laxatives, stool softeners, bowel prep or lactulose in past 24-48 hours?**

- **If Yes** - Contact MD to discuss holding or DC of laxatives, lactulose or stool softener.
- **If meds above are held and diarrhea continues**, contact the MD to discuss causes of diarrhea and possibly sending stool for C.diff (see below).

**If the Patient is having diarrhea and is NOT on Laxatives, Lactulose, bowel prep or stool softeners:**

- Before sending stool for C.diff consider if the patient has signs or symptoms of C.diff: abdominal pain, fever, elevated WBC, nausea or decreased appetite.
- **If the patient has no signs or symptoms of C.diff**, consider other causes of diarrhea (medications, underlying condition, etc.)
Outcomes

• Still in review as to the outcomes of prevention for CDI
• Reduction of PPI utilization by 51% in ICU
• Reduction of PPI utilization by 17% in Non-ICU
• Secondary interventions documented 114/178 or 64%
• PPI therapy meets criteria 48/178 or 27%
• PPI therapy changed or discontinued 48/178 or 27%
• MD declined pharmacist recommendation 21/178 or 12%