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FACILITY: HSHS Sacred Heart Hospital HSHS St. Joseph's Hospital	**MANUAL(S): Infection Control**
TITLE: ***Clostridium* d*ifficile***	**ORIGINATING DEPARTMENT: Infection Prevention**
SUPERCEDES:	**POLICY NUMBER:**

POLICY

The following policy addresses Infection Prevention and Control Guidelines recommended by the Centers for Disease Control and Prevention (CDC), the Society for Healthcare Epidemiology of America (SHEA) and the Infectious Disease Society of America (IDSA) for the detection, and prevention of *Clostridium dificille (C.* diff*)* transmission in the hospital setting.

PURPOSE

C. diff may be transmitted by direct contact with a patient (hand or skin-to-skin contact that occurs when performing patient-care activities that require touching the patient's dry skin) or by indirect contact (touching) with environmental surfaces or patient-care items in the patient's environment. The following policy outlines preventive measures based on the CDC, SHEA and IDSA recommendations for the prevention of *C.* diff transmission.

DEFINITIONS

Admission day: the number of days since hospital admission are measured based on the day ending at midnight. *Clostridium difficle* infections identified on admission days 1-3 are considered community onset. Infections identified on or after admission day 4 are considered hospital onset.

Antibiotic associated diarrhea (AAD): loose, watery stools three or more times a day after taking antibiotics. Most AAD is mild and requires no treatment. It typically clears up within a few days after antibiotics treatment is completed. More severe AAD may require stopping or changing antibiotics.

***Clostridium difficile* (C. diff)**: a spore-forming, gram-positive anaerobic bacillus that produces two (2) endotoxins: toxin A and toxin B. It accounts for 15-25% of all episodes of antibiotic associated diarrhea (AAD).

C. diff infection (CDI): patients exhibit a range in severity of clinical symptoms including watery diarrhea (3 or more loose stools in 24hrs), fever, loss of appetite, nausea, abdominal pain/cramping that may be severe, dehydration, elevated WBC and kidney failure. Severity ranges from mild diarrhea to fulminating colitis with mega colon involvement with bloody/watery/pus in stool. Patients test positive for the C. diff organism and/or toxin A & B. Risk factors for C. diff infection include antibiotic exposure with 3 or more diarrheal stools in 24 hrs, gastrointestinal surgery/manipulation, long length of stay in healthcare settings, serious underlying illness, immunocompromising conditions and advanced age.

C. diff colonization: patients exhibit NO clinical symptoms (diarrhea only), mild to moderate diarrhea with 3 or more loose stools in 24hrs, mild cramping and abdominal tenderness. C. diff colonization is more common than infection. Patients test positive for C. diff organism and/or toxins A & B.

RESPONSIBILITIES

1. All colleagues providing direct or indirect patient care.

PROCEDURE/GUIDELINES

A. Admission Days 1-3 (Community Onset) --Goal is to increase early detection

1. **Assess**
   - Nurses will complete the C. diff screening in Epic every 12 hours x 6 answering "yes" to the first question then proceed to answer questions about stool pattern.
   - Assess and accurately document stool frequency and appearance.

2. **Test**
   - Patients with 3 or more diarrheal stools in 24 hours during admission days 1-3 will be tested for C. diff per standing order.
   - Appropriately labeled diarrheal stool samples (take the shape of the container) shall be transported to the Clinical Laboratory within 30 minutes of obtaining the specimen.
   - The Clinical Laboratory shall immediately notify appropriate clinical colleagues about patients with a positive C diff result.

3. **Isolate**
   - Patients with diarrhea and/or abdominal symptoms suggestive of C. diff will be placed in Special Contact Isolation.
   - Patients may be removed from Special Contact Precautions if they do not have a loose stool for 48 hours after admission and are asymptomatic for C. diff.
   - If a patient continues with diarrhea and C. diff and other infectious diarrheal illnesses have been ruled out (Norovirus, Salmonella, Shigella, Campylobacter) the patient may be removed from precautions.
   - Patients diagnosed with C. diff will continue in precautions until discharge.

B. Admission Day 4-Discharge (Hospital Onset) --Goal is to decrease inappropriate testing

1. **Assess**
   - Assess and accurately document stool pattern and abdominal assessment.
   - Assess other etiologies that may be causing the diarrhea (i.e. stool softeners/laxatives, tube feedings, bowel prep, impaction with oozing stool, etc.) before sending a stool for testing.
   - Assess for C. diff symptoms including abdominal pain/bloating, elevated WBC trend and fever trend.
   - Contact Infection Prevention during office hours or Nursing Supervisor after hours with testing questions.

2. **Test**
   - A Healthcare Provider order is required for a C. diff test on admission day 4 and after (no protocol).
   - Patients with 3 or more diarrheal stools in 24 hours **and** signs of infection including abdominal pain, nausea, fever and elevated WBC during admission day 4 and after may be tested.
   - Infection Preventionists may cancel tests on or after admission day 4 if testing criteria aren't met.

- Appropriately labeled diarrheal stool samples (take the shape of the container) shall be transported to the Clinical Laboratory within 30 minutes of obtaining the specimen.
- The Clinical Laboratory shall immediately notify appropriate clinical colleagues about patients with a positive C. diff result.
- Pediatric patients under 4 years of age should not be tested for C. diff unless the physician specifically requests this test. Studies have indicated that children from 0 to 34 months of age are colonized with C. diff. Because carriage is so common, it is prudent to avoid testing in children under one. Testing can be considered in children 1-3 years of age with diarrhea, but testing for other causes, esp. viral, is recommended first.

3. Isolate

- Patients with diarrhea and symptoms suggestive of C. diff on or after admission day 4 will be placed in Special Contact Precautions.
- Patients may be removed from Special Contact Precautions if they do not have a loose stool for 48 hours and are asymptomatic for C. diff.
- Patients diagnosed with C. diff will continue in precautions until discharge.

C. Prevent Transmission of CDI

1. Special Contact Precautions

- Patients will be placed in private rooms.
- Full barrier precautions (gowns and gloves) shall be worn when colleagues is in contact with patients with CDI and for contact with their body fluids and environment.
  - Don gloves and gown on entry to the patient's room
  - Immediately change gloves if visibly soiled and after touching or handling surfaces or materials contaminated with feces
  - Remove gown and gloves before exiting the room
  - Perform soap and water hand hygiene.

2. Hand hygiene

- Only soap and water shall be used for hand hygiene when caring for patients with C. diff-associated disease; alcohol-based hand rubs are not effective against spore-forming bacteria.

3. Dedicated patient care equipment

- Dedicated patient-care equipment shall be used. If items must be shared, clean and disinfect the equipment between each patient use with a hospital approved sodium hypochlorite-based disinfectant.

4. Limiting patient movement

- Patients are NOT allowed in common areas, such as the cafeteria and gift shop or common waiting areas.
- If a patient must leave his/her room for therapies or other services:
  - Notify receiving department that the patient has C. diff.
  - The patient should be bathed/showered if at all possible.
  - A clean gown, robe, and slippers should be put on the patient; put clean linens on the cart or wheelchair.
  - Patient must perform hand hygiene prior to leaving the room.
  - If the patient is ambulating in the hall for therapy purposes he/she must be continent of their bowel movements.

- Therapy colleagues should try to do therapy sessions in corridors with C. diff patients during least busy time periods.
- Therapy colleagues must wipe down all equipment and supplies touched by the patient with bleach wipes.

5. Environmental cleaning

- Ensure adequate cleaning and disinfection procedures of environmental surfaces and reusable devices, especially items likely to be contaminated with feces and surfaces that are touched frequently, are performed.
- An Environmental Protection Agency (EPA)-registered sodium hypochlorite-based disinfectant shall be used for environmental surface disinfection after cleaning in accordance with label instructions.
- Alcohol-based disinfectants are not effective against C. diff and should NOT be used to disinfect environmental surfaces.
- Manufacturers' instructions for disinfection of endoscopes and other devices shall be followed.
- Areas to pay particular attention to:
  - Furnishings in the room, including over-bed tables, bed rails, furniture, sinks, floors, commodes, and toilets.
  - Patient care equipment that directly touches patients, such as thermometers, stethoscopes, and blood pressure cuffs.
  - "High-touch" surfaces, such as doorknobs, TV remotes, sink faucets, light switches, and intravenous fluid pumps.
  - Bedside curtains must be changed when a C. diff patient is discharged.

6. Education

- Colleagues in Patient Care Departments, Environmental Services Department, and other appropriate hospital colleagues will receive education about CDI during New Colleague Orientation and through computer based learning modules, including risk factors, routes of transmission, patient outcomes and treatment and prevention measures.

- Patient and family education will be provided by RN and shall include general information about CDI, the hospital's CDI prevention program, risk of transmission to friends and family and home care.

7. Antibiotic Stewardship

- The WWD Antibiotic Stewardship Committee will implement evidence based strategies to reduce use of antibiotics.

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