ISOLATION: CLOSTRIDIUM DIFFICILE (C.difficile) POLICY

PURPOSE To prevent the transmission of C.difficile associated disease in the hospital and outpatient settings.

SUPPORTIVE DATA

- *C.difficile* has been a known cause of healthcare associated diarrhea for over 30 years. It can be acquired in both hospital and community settings. *C.difficile* exists in the environment and colonizes a small percentage of people without causing any symptoms.
- *C.difficile* produces spores that are resistant to most environmental cleaners and disinfectants with the exception of buffered sodium hypochlorite (bleach). Spread of *C.difficile* has been attributed to inadequate hand hygiene and environmental cleaning. Transmission prevention and control is achieved though consistent hand hygiene and thorough environment cleaning.
- Addendum A – EVS Terminal Cleaning after Discharge
- Addendum B – Contact Enteric Precautions Signs

BACKGROUND

Centers for Disease Control and Prevention (CDC) in March 2012 released the *Vital Signs* report showing that Clostridium *difficile* is a patient safety concern in all types of health care facilities, not just hospitals. The CDC has recommended six steps to prevent C. *difficile* and the spread of the bacteria:

- Prescribe and use antibiotics carefully. About 50% of all antibiotics given are not needed, unnecessarily raising the risk of C. *difficile* infections.
- Test for C. *difficile* when patients have diarrhea while on antibiotics or within several months of taking them.
- Isolate patients with C. *difficile* immediately.
- Wear gloves and gowns when treating patients with C. *difficile*, even during short visits. Hand sanitizer does not kill C.*difficile*, and hand washing may not be sufficient.
- Clean room surfaces with bleach or another EPA-approved, spore-killing disinfectant after a patient with C. *difficile* has been treated there.
- When a patient transfers, notify the new facility if the patient has an active C. *difficile* infection.

Risk factors for C.difficile

Certain people/patients are at increased risk for acquiring CDAD. These risk factors include:

a) A history of antibiotic usage
b) Bowel surgery or other bowel integrity condition
a) Chemotherapy, radiation therapy
b) Prolonged hospitalization

Additional risk factors that predispose patients to develop more severe disease include:

a) Increased age
b) Serious underlying illness or debilitation

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DEFINITIONS

Diarrhea is defined as unformed or watery stools which conforms to a specimen container and occurs greater than or equal to 3 episodes in a 24-hour period. This pattern is *unusual or different* for the patient; and there is no other recognized etiology for diarrhea, such as laxative use, inflammatory bowel disease or other etiology.

C.Difficile*-Associated Diarrhea (CDAD) is a severe diarrhea caused by *Clostridium difficile a species of Gram-positive bacteria of the genus *Clostridium*.

CONTENT

All diarrheas are suspect for C.difficile. Any patient with diarrhea of an unknown etiology will be placed in Contact Enteric Precautions per the CDC Guidelines until the etiology of the diarrhea has been determined and C.difficile has been ruled out. Nursing Staff will direct the MD to the CLOSTRIDIUM DIFFICILE, SUSPECTED OR CONFIRMED order set for recommended evidence based care.

Preventative Measures

1) Antibiotic Stewardship - goal is to optimize clinical outcomes while minimizing unintended consequences of antimicrobial use. Unintended consequences including toxicity, the emergence of resistant and pathogenic organisms (i.e., MRSA, *Clostridium difficile*). Pharmacy leads the antibiotic stewardship efforts.

Surveillance

1) Clinical Laboratory uses the PCR method of testing to identify *C.difficile.*
2) Infection Prevention and Control conducts inpatient surveillance in any inpatient location where denominator data can be collected with the exception of the NICU and newborn nursery. Infection Prevention and Control maintains a line listing of hospital acquired cases. Hospital acquired infections are reported at the Infection Prevention and Control/Employee Health Leadership Team on a regular basis and an IRIS is completed for all HAI/CDIF infections. Clusters of cases in one unit or area will be investigated and appropriate action taken.

Infection Control Precautions for *C.Difficile*-Associated Diarrhea

1) Contact Enteric Precautions are to be initiated by the healthcare provider (e.g. physician, nurse) as soon as CDAD is suspected.
2) In addition to standard precautions, contact enteric precautions should be initiated for any patient who is suspected to have or considered to be at risk for CDAD *at the onset of symptoms* and prior to receipt of *C.difficile* toxin testing results.

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Contact Enteric Precautions

1.) Room Placement - All patients suspected of having CDAD should be placed in a private room with dedicated toileting facilities (private bathroom or individual commode chair), if available. Patient should be cohorted when the number of cases exceeds private room capacity or practicality (as may occur during an outbreak).
2.) Signage indicating the precautions to be used should be posted on the doorframe of any room of a suspected or confirmed *CDAD* patient or cohort of patients.
3.) Appropriate personal protective equipment (PPE), i.e. gloves and gown, must be donned by all persons prior to entering the room and discarded appropriately upon exit of the room.
4.) Appropriate glove use is critical to prevent *C.difficile* spread.
5.) A barrier supply cart should be easily accessible. Dedicated equipment should be provided for each suspected or confirmed CDAD patient.
6.) A laundry hamper should be placed as close to the patient's bed space as possible
7.) In the event that any equipment must be shared, disinfection of all such equipment with hospital-grade disinfectant, approved for use with the equipment, followed by bleach disinfection, must occur before use with another patient.
8.) The rectal route should not be used to record body temperature.
9.) No special handling of trays, linen and waste is required for patients with C. difficile.
10.) Staff should not hold clean or soiled items against their clothing at any time to avoid transfer of spores or vegetative organisms.

Hand Hygiene

1.) After removal and appropriate discarding of PPE (gloves and gown), hands should immediately be washed with soap and water. The purpose of hand hygiene is to physically remove *C.difficile* spores through friction, lather and rinsing. Hand hygiene must be performed using soap, water and friction to all surfaces for 15-20 seconds followed by rinsing with clean water, paper towel drying, and turning off the faucet with the paper towel. Air flow hand dryers are to be avoided to prevent aerosolization of organisms. C difficile spores are not destroyed by alcohol-based hand sanitizers.
2.) Where sinks for hand washing are not readily available, staff should not touch environmental surfaces until after hand washing is performed.

Discontinuation of Precautions for *C.difficile*

1) Contact Enteric Precautions will remain in place for the duration of the admission.

Environmental Cleaning -Inpatient Treatment and Diagnostic Areas and Peri Operative Setting:

The nursing staff is responsible for communicating the need for Contact/Enteric Precautions via verbal communication, the electronic bed control system, and posting the sign on the patient room which must remain in place until removed by EVS after proper cleaning. Room will be cleaned per C. difficile specific cleaning protocols.

1) Basic cleaning principles include all horizontal surfaces in the room and all items within reach of patients.

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2) Enhanced cleaning for patients with suspected or confirmed CDAD include *cleaning and general disinfection* with a hospital-grade disinfectant to decrease quantity of organisms, followed by bleach disinfection with special attention to frequently touched surfaces such as bed rails, telephones, call bells, remote control, light switches, door handles, and faucets.
3) Cleaning principles include:
   a) Work from clean items and surfaces to dirty ones.
   b) Do not spray or squirt disinfectant solution onto the surfaces to be cleaned. Apply disinfectant solution directly to all cleaning cloths and ensure they are fully saturated prior to cleaning surfaces.
   c) Change cleaning cloths and mop heads frequently. Reduce contamination of disinfection solution and recontamination of cloths (e.g. avoid "double-dipping" of cloth into disinfectant solution).
   d) Allow to air dry, giving disinfectant/bleach adequate contact time.
4) Terminal cleaning must occur when a CDAD patient is discharged from a room.
   a) Contact/Enteric sign must remain in place until proper room cleaning is complete
   b) Begin the terminal room clean by donning appropriate PPE.
   c) Prior to initiating terminal cleaning, all privacy curtains must be taken down and sent for laundering.
   d) Dispose of non-contained items including toilet paper.
   e) Use of shared equipment should be minimized to prevent spread of CDIF. Shared Equipment should be wiped with a bleach wipes before it is removed from the room of a CDIF patient. Replace toilet brush if present in room, do not re-use.
   f) Floor surfaces are not a significant source of transmission of *C.difficile* and do not require special cleaning procedures. Floors are not routinely cleaned with bleach.
   g) Contact/Enteric sign is removed by the EVS staff.
   h) EVS staff notifies Nursing staff of room readiness.

Environmental Cleaning -Outpatient Setting

1) Refer to Tacoma Pierce County Health Department (TPCHD): What to do about C. difficile, MRSA and other MDROs for Out Patient Settings
2) Cleaning standards must be clearly specified with internal and/or contacted cleaning services.
3) Cleaning must occur when a CDAD patient is discharged from a room.
4) Basic cleaning principles include all horizontal surfaces in the room and all items within reach of patients.
5) Enhanced cleaning for patients with suspected or confirmed CDAD include *cleaning* with a hospital-grade disinfectant followed by bleach disinfection with special attention to frequently touched surfaces such as bed rails, telephones, call bells, light switches, door handles, and faucets. Including therapy or testing tools or equipment that came in contact with patient.

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6) Cleaning principles include:
   a) Work from clean items and surfaces to dirty ones.
   b) Do not spray or squirt disinfectant solution onto the surfaces to be cleaned. Apply disinfectant solution directly to all cleaning cloths and ensure they are fully saturated prior to cleaning surfaces.
   c) Change cleaning cloths and mop heads frequently. Reduce contamination of disinfection solution and recontamination of cloths (e.g. avoid "double-dipping" of cloth into disinfectant solution).
7) Cleaning must be thorough, when a CDAD patient is discharged from a room.
   a) Thorough cleaning with friction and a detergent/disinfectant is essential prior to wiping with bleach wipes.
   b) Use of shared equipment should be minimized to prevent spread of CDIF. Shared Equipment should be wiped with bleach wipes between patients.
   c) Floor surfaces are not a significant source of transmission of *C.difficile* and do not require special cleaning procedures. Floors are not routinely cleaned with bleach.
   d) Terminal cleaning expectation must be clearly outlined for the cleaning staff (internal or contracted service)

Visitors

1) Visitors should receive instruction from the patient's nurse on the importance of hand washing and how to properly perform hand washing. They should be instructed not to rely on alcohol gels, liquids or foams. Antibacterial hand soaps are not required.
2) Visitors, including children, who are unable to understand and comply with Contact Enteric Precautions, should not be permitted to enter isolation rooms/areas.
3) Visitor should wear gloves and gown. The visitor should receive instruction from the patient's nurse on the correct use of personal protective equipment. They should not hold items against their clothing.
4) Visitors must not use the patient's bathroom.
5) Visitors should not go into other patients' rooms or bed spaces.
6) Visitors should avoid the cafeteria or deli after visiting a patient in Contact Enteric Precautions.
7) Visitors should wash their clothing after visiting a patient in Contact Enteric Precautions.

Patient Transport and Transfer

1) Both transporter services and the receiving department must be notified that the patient is on Contact Enteric Precautions prior to transport.
2) Suspected or confirmed CDAD does not preclude a patient from being transferred within the healthcare system.
3) Transfer of a patient with CDAD to another unit or facility must be accompanied by notice that the patient has CDAD.

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Staff Education
All direct patient-care staff and individuals who provide service on the patient care unit (e.g. environmental services, food services, building maintenance) should be provided with information on CDAD, and the measures to prevent and control transmission.

Patient and Visitor Education
1) Inpatient Setting; refer to Working Together for Safe and Effective Care Booklet
2) "The Patient/Family Education video called C-Diff (#859 on the TIGR Patient Education Video System) can be shown to meet many of the patient/family education requirements."
3) Outpatient education booklet available from Tacoma Pierce County Health Department (TPCHD) titled; What to do about C. difficile http://www.tpchd.org/files/library/ad0d05573ab2590f.pdf
4) Upon patient discharge, include Cdiff discharge instructions.

Evaluation
1) Infection Prevention and Control and Environmental Services conduct periodic rounding to monitor appearance of the clean environment of care.
2) Environmental Services conducts periodic Terminal Room Cleaning Audits. Audit findings are reported to the Infection Prevention and Control/Employee Health Leadership Team. (LT)

APPROVAL	02/13
REVIEW	02/2016
REQUIRED REVIEW	Infection Control
DISTRIBUTION	Regional Clinical Standards Manuals
CROSS REFERENCE	Infection Control

ADDENDUM A – EVS Cleaning at Discharge

EVS Cleaning at Discharge (Terminal Cleaning)

Contact Enteric Precautions Rooms

Chemical 1 - 3M # 23 Disinfectant

Chemical 2 - Clorox Bleach Wipe

EVS Steps to Clean Rooms with Contact Enteric Precautions:

1. Don personal protective equipment (PPE) – gown and gloves
2. Check door frame for Contact Enteric Precautions sign
3. Remove privacy curtains
4. Terminally clean room with 3M chemical # 23 disinfectant (refer to Isolation Policy and Procedure
5. Air dry. (DO NOT WIPE DRY)
6. Wipe with bleach wipes. (Special focus on high touch points and equipment)
7. Air dry. (DO NOT WIPE DRY)
8. When equipment dry, may remove from room
9. Per Unit practice - store on Unit and/or send for reprocessing
10. Hang clean privacy curtains
11. Notify Nursing, room cleaning complete and call room out in Navicare
12. Wipe and Remove Precautions Sign from door & return to Isolation Cart

ADDENDUM B – Contact – Enteric Precaution Signs