

CLOSTRIDIUM DIFFICILE (TOXOGENIC): MINIMISING TRANSMISSION - SCH

POLICY[®]

DOCUMENT SUMMARY/KEY POINTS

- This document is to be used in conjunction with the **SCH Infection Control Policy: [Gastroenteritis Transmission Prevention – SCH](#)**
- All children with diarrhoea (the passage of loose stools with increased frequency) are to be isolated until an infectious aetiology is excluded.
- A child with *Clostridium difficile* associated diarrhoea (with symptoms and toxin detected in stool) is to **remain isolated** until stool consistency has normalised
- Basic hand hygiene using liquid soap or waterless 70 % alcoholic/chlorhexidine hand rub must be performed by staff and family members **before** and **after** patient contact.
- Hand washing with liquid soap or hand hygiene with 70% alcoholic/chlorhexidine based hand rub solution must be performed by staff and family on **exiting** the room of a child with confirmed or suspected *Clostridium difficile* associated diarrhoea
- Standard precautions shall be used for the care of all patients. Personal Protective Equipment (PPE - ie gloves and impervious gown) must be used when direct patient contact is anticipated. PPE must also be used when a patient's clinical state prevents containment of faeces. The use of personal protective equipment does not eliminate the need for hand hygiene.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st September 2013	Review Period: 1 year
Team Leader:	Department Head	Area/Dept: Infectious Diseases - SCH

CHANGE SUMMARY

- Due for mandatory review.
- **Changed practice:**
 - “De-isolation: A child with toxin positive *Clostridium difficile* associated diarrhoea can be de-isolated once symptoms have resolved e.g. resolution of diarrhoea. Repeat stool testing is not indicated in this circumstance
 - Removal of “The use of alcoholic hand rub solution alone is insufficient following contact with a patient excreting *Clostridium difficile* as antiseptic solutions are not reliably sporicidal”
- Replaces SCH Infection Control Policy: “Minimising The Transmission Of Toxogenic Clostridium Difficile In Children With Diarrhoea”

READ ACKNOWLEDGEMENT

- All clinical SCH staff working in clinical areas are to read and acknowledge they understand the contents of this policy.

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Background¹

This document should be read in conjunction with the Practice Guideline [Gastroenteritis Transmission Prevention – SCH](#)

- *Clostridium difficile* is a spore-forming, gram-positive anaerobic bacillus. Certain strains produce exotoxins. Diarrhoea and colitis result from toxin production within the intestinal lumen. The clinical manifestations of *Clostridium difficile* range from asymptomatic colonisation to severe disease.
- Children who are colonised with *Clostridium difficile* exhibit no symptoms and do not require treatment or isolation. Colonisation occurs most frequently in neonates and infants < 1 year of age. These children are distinct from those with clinical symptoms.
- *Clostridium difficile* infection may present with a number of clinical symptoms including watery diarrhoea, abdominal pain, anorexia, nausea and fever.
- Infected children are at risk of developing pseudo-membranous colitis, toxic megacolon, perforation of the bowel and severe sepsis.
- The risk of developing symptomatic *Clostridium difficile* infection is increased in situations where overgrowth of *Clostridium difficile* can occur. This occurs in:
 - children receiving broad-spectrum antibiotics
 - children with prolonged paralytic ileus following abdominal surgery
 - immunocompromised children
 - children with recurrent or prolonged hospitalisation
- *Clostridium difficile* associated diarrhoea is defined by the presence of symptoms and *Clostridium difficile* toxin in stool. Both toxogenic and non-toxogenic strains of *Clostridium difficile* are isolated by stool culture. *Clostridium difficile* toxin can also be detected in stool by PCR. The toxin is unstable and can degrade.
- *Clostridium difficile* is shed in faeces, especially in the presence of *Clostridium difficile* associated diarrhoea. The bacteria do not survive in an aerobic environment but its spores are very resistant, even to many antiseptic agents. Spores are transferred between patients mainly via the hands of health care personnel who have touched a contaminated patient, surface or item.
- *Clostridium difficile* associated diarrhoea in some patients will resolve without treatment. Treatment is effective and is recommended in those with severe symptoms, the immunocompromised and other high risk patients.
- After treatment, repeat *Clostridium difficile* testing is not recommended if the patients' symptoms have resolved.

Recommendations¹⁻⁵

- All children with diarrhoea (the passage of loose stools with increased frequency) are to be isolated until an infectious aetiology is excluded.
- **In general:** Children with diarrhoea should have stools collected and the sample submitted for testing. The request form should state: "Microscopy, culture and sensitivities (MCS). If however, other pathogens are suspected, the form needs to include the specific request e.g. "ova, cysts and parasites (OCP) or "rotavirus" antigen, or "adenovirus antigen" or "norovirus antigen" detection.
- **Testing for *Clostridium difficile*:** In children with risk factors for *Clostridium difficile* associated diarrhoea, stool should be examined for *Clostridium difficile*. The request form should state: "*C. difficile* culture and toxin". Importantly, the request must be accompanied by a brief history that includes symptoms of diarrhoea or the sample may not be tested for *Clostridium difficile* by the laboratory. Note: if the initial test is "negative" for *Clostridium difficile*, do not routinely retest for *Clostridium difficile* within 7 days of that test as the laboratory will not process and test for *Clostridium difficile* in that time period.
- **Isolation:** A child with *Clostridium difficile* associated diarrhoea (with symptoms and toxin detected in stool) is to **remain isolated** until stool consistency has normalised.
- **De-isolation:** A child with toxin positive *Clostridium difficile* associated diarrhoea can be de-isolated *once symptoms* have resolved e.g. resolution of diarrhoea. Repeat stool testing is not indicated in this circumstance.
- **Persistent loose stools:** If the loose stools is continuing despite treatment, a patient can be de-isolated if there is an alternative explanation for ongoing diarrhoea e.g. malabsorption
- Hand hygiene using liquid soap or waterless 70 % alcoholic/chlorhexidine hand rub must be performed by staff and family members **before** and **after** patient contact.
- Hand washing with liquid soap or hand hygiene with 70% alcoholic/chlorhexidine based hand rub solution must be performed by staff and family on **exiting** the room of a child with confirmed or suspected *Clostridium difficile* associated diarrhoea.
- Standard precautions shall be used for the care of all patients. Personal Protective Equipment (PPE): i.e. gloves and impervious gown must be used when direct patient contact is anticipated. *PPE must also* be used when a patient's clinical state prevents containment of faeces. The use of personal protective equipment does not eliminate the need for hand hygiene.
- A child with *Clostridium difficile* associated diarrhoea must have dedicated equipment wherever possible. When dedicated equipment is not possible, any equipment being used within the room should be thoroughly cleaned with a hypochlorite-based disinfectant before leaving the isolation room.
- **Cleaning:** For **terminal cleaning** of the room, notification to the Cleaning supervisor will be necessary. Thorough cleaning and disinfection of all surfaces and reusable devices with a **hypochlorite-based disinfectant** is required. Cleaning staff shall don PPE and adhere to hand hygiene practices as necessary.

References:

1. Clinical Practice Guidelines for Clostridium difficile infection in adults: 2010 Update by the Society for Healthcare Epidemiology of America (SHEA) and the Infectious Diseases Society of America (IDSA). 2010. Infection Control and Hospital Epidemiology. <http://www.cdc.gov/HAI/pdfs/cdiff/Cohen-IDSA-SHEA-CDI-guidelines-2010.pdf>
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5. Australian Commission on Safety and Quality in Healthcare "Australian Guidelines for the Prevention and Control of Infection in Healthcare. Australian Government National Health and Medical Research Council : 2010 http://www.safetyandquality.gov.au/wp-content/uploads/2012/10/Standard3_Oct_2010_WEB.pdf
6. Australian Commission on Safety and Quality in Healthcare. Fact sheet. Nov 2010. http://www.nhmrc.gov.au/files_nhmrc/publications/attachments/cd33_cdif_brochure.pdf
7. Hand Hygiene Policy, Sydney Children's Hospital Network. [based on NSW MoH Hand Hygiene Policy Directive PD2010_058]. <http://chw.schn.health.nsw.gov.au/o/documents/policies/policies/2013-9031.pdf>

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