

## ***Clostridium difficile* Sub-Committee Health Protection Surveillance Centre**

### **Sample Root Cause Analysis Tool of Hospital-acquired *Clostridium difficile* Infection**

**Version 3, January 2016**

This document has been adapted from the root cause analysis tool developed by the infection prevention and control team, Connolly Hospital, Dublin.

We gratefully acknowledge their permission to use their document.

Hospital teams may wish to adapt this tool accordingly.

We welcome feedback and comments on this tool at [info@hpsc.ie](mailto:info@hpsc.ie)

<b>Name of person coordinating this root cause analysis:</b>	
<b>Name(s) &amp; position(s) of person(s) performing this root cause analysis:</b>	
<b>Date:</b>	
<b>Copy of this report sent to (circle all relevant):</b> <ul style="list-style-type: none"> <li>• Consultant caring for patient with CDI</li> <li>• Ward Manager</li> <li>• CEO/Hospital Manager</li> <li>• Director of Nursing</li> <li>• Risk manager</li> <li>• Clinical director</li> <li>• Other (please state)</li> </ul>	

### 1. Demographics

Patient name:	
Medical record number:	
Date of birth:	
Ward:	
Consultant:	
Date of admission:	
Admitted from: (please circle)	Home Other hospital (name) Nursing home (name) Other healthcare facility (name)
Ward and dates where patient was in this hospital prior to CDI diagnosis	<u>Ward</u> _____ <u>Date</u> _____

## 2. *C. difficile* infection (CDI)

Has this episode of CDI been acquired in this hospital?	Yes No
Case type (please circle)	New case of CDI Recurrent CDI (state number of recurrences) Unknown
Is this patient part of an outbreak/cluster of CDI?	Yes – give details:  No
<i>C. difficile</i> ribotype (if available)	
Does the patient have risk factors for CDI (please circle all risk factors)	<ul style="list-style-type: none"> <li>• Age &gt;65 years</li> <li>• Previous hospital admissions</li> <li>• Recent antibiotic use (previous 12 weeks)</li> <li>• Recently on ward/unit with other CDI cases</li> <li>• Proton Pump Inhibitors</li> <li>• Laxative use</li> <li>• Immunosuppression</li> <li>• Inflammatory bowel disease</li> <li>• Other underlying disease</li> <li>• NG feeding</li> <li>• GI surgery</li> <li>• Other</li> </ul>
Outcome (please circle)	Symptoms resolved Still symptomatic Death – if so was CDI a contributory factor?

## 3. Antibiotic history in previous 12 weeks

Antibiotic (Name, route)	Date commenced	Date complete	Indication	Compliance with hospital policy (yes/no)

**If antibiotics were not prescribed in accordance with hospital guidelines give details:**

#### 4. Management of the patient with CDI - Infection Prevention and Control

Date of onset of diarrhoea:	
Date and time specimen sent to the laboratory for <i>C. difficile</i> toxin testing:	
Date and time of positive <i>C. difficile</i> results:	
Date and time of isolation in single room?	
Time to isolation in a single room from onset of symptoms:	
Time to isolation in a single room from confirmation of CDI:	
Was the patient isolated in a single room with en suite facilities and a clinical hand basin?	Yes No If no, why not
If there was no single rooms available: 1. Has a risk assessment been performed to ensure there are no available options for single room placement?  2. Was the patient cohort nursed, with en suite facilities or individual commode?	Yes No If no, why not  Yes No If no, why not
Are staff aware that hand WASHING with soap (antimicrobial or non antimicrobial) and water must be used for all hand decontamination when caring for patients with CDI (as per WHO 5 Moments for Hand Hygiene)	Yes No If no, why not
Is personal protective equipment (PPE), i.e., disposable gloves and plastic aprons readily available to staff when entering the cohort area or isolation room?	Yes No If no, why not
Have all commodes and toilets been cleaned with detergent and then disinfected with 1000ppm available chlorine?	Yes No If no, why not
Has a cleaning regimen of the cohort/isolation area and all equipment in the area (detergent and 1000ppm available chlorine) been established in line with hospital policy?	Yes No If no, why not
Is the bedpan washer in the ward working, has it been serviced appropriately & service records visible?	Yes No If no, why not

Has patient care equipment been dedicated for the specific use of patients with CDI, e.g. blood pressure cuffs, stethoscopes and thermometers	Yes No If no, why not
Has the patient been shown how to perform hand hygiene? If the patient cannot perform hand hygiene has assistance been provided by ward staff?	Yes No If no, why not
Has the clinical microbiologist been contacted to request <i>C. difficile</i> typing in the case of a) severe disease, b) suspected outbreak?	Yes No If no, why not

## 5. Clinical management of the patient with CDI

Has the patient been informed that they have CDI?	Yes No If no, why not
Is this documented in the medical notes	Yes No If no, why not
Has the patient been given a CDI information leaflet?	Yes No If no, why not
Does the patient have an up to date stool chart (e.g., Bristol Stool Chart)?	Yes No If no, why not
Has their medication been reviewed by their medical team: specifically a review of antibiotic, proton pump inhibitor and laxative therapy and unnecessary agents stopped? (please circle)	Antibiotics reviewed: Yes – No - N/A  PPI reviewed: Yes – No - N/A  Laxatives reviewed Yes – No - N/A
Are there <u>daily</u> clinical assessments recorded in the medical notes to assess for signs of severe CDI?	Yes No If no, why not
Is the patient on appropriate CDI specific antimicrobial therapy in accordance with hospital guidelines	Yes No If no, why not
Date anti CDI therapy commenced:	

Is specific anti-CDI therapy in line with national guidelines?	Yes No – if no, why not
Does the patient have severe CDI? If so was a surgical opinion requested?	
Did the patient require: 1. ICU admission 2. Surgery for megacolon/colitis	

**6. Recent audit results if available for this and other wards where the patient is suspected of acquiring CDI**

Date	Ward area	Audit	Result	Comment
		Hand hygiene		
		Environmental hygiene		
		Sluice room audit		
		Mattress checks		
		Antibiotic consumption		
		Antibiotic audit		

**7. Learning Lessons and Changing Systems - What could have contributed to this episode of CDI?**

<b>1. Were any deficiencies in antibiotic prescribing identified that could have contributed to patient susceptibility?</b>	If yes, list the systems changed to rectify this and reduce the risk of recurrence?
<b>2. Were there any deficiencies in practice that could have contributed to cross-transmission or delayed detection?</b> e.g., Delayed or non-isolation Delayed sending of specimens Inadequate contact precautions – use of PPE Use of alcohol based hand rub rather than antiseptic soap & water Excess patient movement	If yes, list the systems changed to rectify this and reduce the risk of recurrence?

<p>3. <b>Were any deficiencies in the maintenance of a safe patient environment identified?</b>  e.g. Cluttered environment  Inadequately cleaned environment  Inadequately cleaned equipment, commodes, washbowls  Insufficient single-rooms to isolate all patients requiring contact precautions?</p>	<p>If yes, list the systems changed to rectify this and reduce the risk of recurrence?</p>
<p>4. <b>Were there any other factors that could have contributed to the CDI identified?</b></p>	<p>If yes, list the systems changed to rectify this and reduce the risk of recurrence?</p>
<p>5. <b>What other preventive measures could be instigated?</b></p>	