Clostridium Difficile Infection (CDI)

Policy for the management of Clostridium Difficile Infection (Sporadic cases, Period of Increased Incidence or Outbreak Situation)

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1.9 Sign Off: Document Review Group Chair
SUMMARY

*Clostridium difficile* was first recognised in the late 1970’s as a cause of antibiotic associated diarrhoea and in some cases pseudomembranous colitis.

CDI is associated with the use of certain antibiotics and causes a spectrum of disease from mild diarrhoea to severe and life threatening conditions.

CDI is transmitted by *Clostridial* spores and the vegetative bacteria which are shed in large numbers in diarrhoeal stools of infected patients. The spores are capable of surviving for a long period of time in the environment therefore cross contamination is a major risk factor.

In 2006/2007 the James Paget University Hospitals saw an increase in the number of patients developing CDI. This was due largely to the appearance of a new strain of *Clostridium difficile* within the Trust, recognised as 027 ribotype. This strain releases far more toxins, causing prolonged diarrhoea, responds less well to treatment and some patients become seriously unwell very quickly. Several measures were rapidly instituted to reduce these infections. JPUH has achieved major success in preventing and controlling CDI. These guidelines are being revised to take account of UK Government guidelines. Adherence to these guidelines are necessary to maintain and sustain the reduction in CDI rates that have been achieved.

PURPOSE

1. To provide a safe environment and appropriate care to all patients within the James Paget University Hospitals NHS Foundation Trust by minimizing the risk of acquiring CDI, and ensuring timely and evidence based care whenever CDI occurs.

2. To enable the prompt recognition of any period of increased incidence (P11) or outbreak.

3. To outline outbreak control measures.

SCOPE

All employees of the James Paget University Hospitals NHS Foundation Trust including agency and locum staff, as well as contractors and relatives need to be aware of their roles in preventing CDI cross infection within the hospital. Information for patients and contractors is covered in separate leaflets. (see separate JPUH information leaflets).
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1.0 INTRODUCTION

The establishment of a “cohort” ward has been designed to combat the spread of *Clostridium difficile* within the Trust. Patients with CDI were cared for on wards throughout the Trust in single rooms or cohorted in a bay, which made it more difficult to decontaminate the wards because of the continued risk of further symptomatic patients contaminating the environment. Caring for patients with confirmed CDI in one place, allows for a coordinated approach to the patients treatment, deep cleaning and decontamination of wards, and therefore enables the wards to utilise their single rooms for patients who have been identified with other alert organisms e.g. MRSA, Noro virus. The East of England Strategic Health Authority has directed the promotion of cohort ward as the standard expected in the region. This arrangement also ensures that CDI is treated as a disease in its own right by Specialist (Gastroenterologist and Consultant Microbiologist) and therefore reduces morbidity and mortality from CDI.

This policy identifies the infection prevention practices required, roles and responsibilities of individuals, and the movement of patients who have been identified with CDI.

Responsibilities

It is the responsibility of all practitioners caring for patients within the trust to understand and follow the specification of this policy.

Process for monitoring and review

The Chair of the Hospital Infection Control Committee (HICC) is responsible for monitoring the effectiveness of this policy and procedure. This will be undertaken using the Saving Lives audit of patients with known *C diff* and the Head of Infection Prevention & Control will monitor and act on; the summaries of the root cause analysis and any action plans from all *C diff* cases, the “time lines” which indicate previous admissions to the trust, Saving Lives audit results and will take any concerns regarding increased incidence or failure to comply with the audit requirements to the Director of Infection Prevention & Control (Chair of the HICC).

Related Documents

- The Antibiotic Prescribing policy
- The Isolation policy
- The Cleaning Strategy
- The Standard Precaution policy
- The Movement of Patients with Alert Organisms policy
2.0 AIMS & OBJECTIVES OF THE COHORT WARD

- Care for all patients with CDI, confirmed by a laboratory specimen result, on the cohort ward.
- To prevent cross infection.
- To allow concentrated; specialist medical, nursing, therapeutic and infection control input for those patients affected by *Clostridium difficile* diarrhoea.
- To prevent the spread of *Clostridium difficile* spores throughout the Trust.
- To allow meticulous decontamination of wards contaminated with *Clostridium* spores.
- To reduce the incidence of *Clostridium difficile*.

3.0 DEFINITIONS

- Period of Increased Incidence (PII): Two or more **new** cases (>48 hours post admission, not relapses) in a 28 day period on a ward (DoH 2009)
- Outbreak: Two or more cases caused by the same strain related in time and place over a defined period that is based on the date of onset of the first case. (DoH 2009)

Decision as to whether there is a PII or an outbreak will be made by the Director of Infection Prevention and Control (DIPC). If considered to be a Period of Increased Incidence (PII), or outbreak, the appropriate action will follow (see JPUH policy on management of outbreaks of infections)

4.0 ADMISSION, DISCHARGE AND TRANSFER CRITERIA

Any patient with clinically unexplained diarrhoea (i.e. watery, No 5, 6 or 7 on the Bristol stool chart (Appendix C) **must** have a sample sent to the laboratory for *Clostridium difficile* GDH testing immediately, if positive a toxin test will follow.. Microscopy, culture/sensitivity tests should also be requested if Community type gastrointestinal pathogens are suspected e.g. Salmonella, Shigella, Campylobacter. These generally tend to be relevant in patients admitted with diarrhoea or inpatients who develop diarrhoea within a day of admission. The Infection Prevention Team must be contacted about any patient with clinically unexplained sudden onset, diarrhoea and / or vomiting. (Including weekends and out of hours via the onsite manager).

The patient **must** be isolated in a single room immediately (door closed), if no single room available risk assessment must be undertaken with the Infection Prevention Team.

**When Clostridium difficile is confirmed by the toxin test:**

a) The Infection Prevention Team will notify the clinical team caring for the patient and the result will also be available on the computer pathology system
b) The diagnosis must be explained to the patient by the clinical team. Patient leaflet must be given to the patient. This must be documented in the patient’s notes.
c) Patients next of kin must be informed if appropriate and information leaflet given. This process must be documented.

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Version 4
Author: Linda Hawtin – Head of Infection Prevention & Control & Mandy Hoadley - Infection Prevention & Control Specialist Nurse
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d) Antibiotic therapy must be reviewed immediately by the medical team and where possible discontinued.


f) 4 hourly Temperature, Pulse, Respiration, (TPR) fluid and stool charts should be commenced if not already in place.

g) The patient must be moved to the cohort ward within 2 hours of the confirmed C diff result. The decision not to transfer the patient to the Cohort Ward can only be made jointly by the DIPC/Consultant Microbiologist and the Consultant in charge of the patient.

This decision and reason must be documented in the patients notes by the DIPC/Consultant Microbiologist. The Director of Nursing and/or Chief Executive should also be notified of this deviation from the policy

h) The patient must be closely monitored, and an urgent medical review required if

a. Fever or hypothermia (Temp >38°C, <35°C)

b. Raised WBC (↑ 12 x 10⁹/L)

c. Low albumen (↓ 25 mg/dl)

d. Raised CRP (> 50mg/dl)

e. Dehydration

f. Abdominal tenderness / Pain

g. Hypokalemia

These may indicate severe C diff infection and could be life threatening.

i) CDI patients will be jointly managed by the Consultant Microbiologist, Gastroenterologist and nursing staff with input from dieticians and pharmacists as necessary

j) When the patient has been transferred to the cohort ward the bed space must be disinfected using a chlorine solution, (1,000 ppm). The bed space includes; Bed, chair, locker, table and floor. The curtains around the patient's bed space must be changed.

Criteria for admission to cohort ward

Only patients with a stool sample confirmed positive for Clostridium difficile toxins will be admitted on to the Clostridium difficile Cohort Ward.

The cohort ward will not accept patients who do not have a confirmed laboratory result.

Criteria for Discharge/ Transfer from the cohort ward

The patient must be 72hrs clear of diarrhoea (no 5, 6 or 7 on the Bristol stool chart) and have had at least one semi-formed stool (no 4 on the Bristol stool chart) or stool normal for the patient before discharged from the Cohort Ward.

The bed must remain in the Cohort Ward. Patients must be transferred onto beds from the receiving unit.

When there is only one patient on the Cohort Ward

The cohort Ward has 6 beds; 2 single rooms with en-suite and anti-room, which can be closed off from the other 4 beds.

When there is only 1 patient on the Cohort Ward they will be nursed in one of the single rooms, and the doors going to the other 4 beds will be closed allowing the beds to be used by the adjoining ward (Ward 16).

However if there are 2 patients on the Cohort Ward the remaining 4 beds must be empty.

Assessment of the bed utilization on the Cohort Ward will be undertaken by the Infection Prevention and Control Team daily.
Discharge home;
1. The C. diff information letter, which advises what to do if recurrence takes place must be faxed to the GP and a copy given to the patient.
2. Inform Infection Prevention Nurse, who will inform the Community Infection Prevention Nurse.
3. The Community Infection Prevention nurse will monitor the patient at home by telephone. First contact must be within 48 hours of discharge. Frequency thereafter will depend on clinical need.
4. Ensure the patient understands the need to contact the GP immediately if diarrhoea re-occurs.

Transfer to another ward; a single room is not required when asymptomatic and transferred to another Ward. The patient will be monitored daily by the Infection Prevention Nurses whilst in hospital.

Exception - if a symptomatic patient requires transfer to a specialist area i.e. ICU, CCU due to their clinical need they must be isolated in a single room whenever possible. Inform the Infection Prevention Team.

Transfer to other ward within the JPUH; Patients with CDI must not be transferred to other wards.

Transfer to another healthcare institution; The Infection Prevention Team and the Ward in receiving institution must be informed about the patient's history of CDI before transfer. The information letter must also be sent with the patient. This procedure must be followed even if patient is no longer symptomatic with diarrhoea.

Cleaning; When discharged/transferred the bed space should be cleaned and disinfected using a chlorine solution. This includes; bed, table, locker, chair and the curtains around the bed space must be changed.

5.0 MOVEMENT OF PATIENTS FOR CLINICAL INVESTIGATION AND / OR TREATMENT

The principle of reducing movement to a minimum should be observed. The clinician should sanction urgent investigations required for the clinical management of the patients, however non-clinical/ non-urgent investigations may be postponed until diarrhoea stops. Clinical risk assessment will be necessary in some instances.

The department concerned should be informed of the patient’s CDI status. Where possible the patient should have the last appointment of the day. Patients who require specialist wound review should be seen on the Cohort Ward in preference to attending CTS.

All unnecessary equipment should be removed from the room/area before the patient arrives.

Any equipment used should be thoroughly disinfected after use (Chlorine solution 1,000 ppm)
6.0 **DEATH CERTIFICATION**

If a patient with confirmed *Clostridium difficile* infection dies, the case must be discussed with the duty Consultant Microbiologist to ensure the death certification is accurate. The Healthcare Commission (HCC) pro-forma (see appendix B) must be used for this purpose. The completed HCC form must be returned to the Infection Prevention Office as this is used for a prospective audit.

When the Trust is functioning with Locum Microbiologists it is advisable to discuss the pro-forma requirements with the Gastroenterologist.

7.0 **OPERATIONAL ISSUES FOR THE COHORT WARD**

**Infection Prevention**

The infection prevention team will visit the ward daily. The team will provide training and advice on the management of patients with identified CDI both within the cohort ward and in the rest of the Trust, they will provide guidance on treatment and any other infection control issues.

Staff entering the Cohort Ward should be kept to a minimum, to reduce the risk of cross infection.

**Nursing**

There will be a minimum of 1 Healthcare Assistant allocated to the Cohort Ward, and this will be revised daily regarding patient numbers and dependency as to whether this needs to be increased.

All other staff visiting the Ward will be required to wear a disposable blue gown, plastic apron and gloves when attending to a patient.

**Hand decontamination, gloves & aprons**

Everyone entering and leaving the cohort ward must wash their hands with soap and water.

Alcohol gel is not effective against the *Clostridium* spores.

Long sleeved blue gowns, apron and gloves must be worn when examining and/or giving physical care to the patient and removed immediately after.

Standard “universal” precautions should be adhered to at all times.

**Facilities**

Environmental cleaning will be carried out daily by the domestic staff using a Chlorine disinfectant solution approved by the Infection Prevention Team.

**Terminal clean**

Curtains need to be removed prior to cleaning; and replaced when the cleaning of the bed space/room has been completed.

Clean the bed, table, locker, chair and any other equipment in the room/bed space.

Empty waste bins

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Equipment
It is the responsibility of the nursing staff to clean/disinfect equipment after each patient use as per manufacturers’ instruction/Trust policy. I.e. commodes, bed pans, bladder scanners etc.
Any item for repair must be decontaminated first.
Hoist slings must be disposable and allocated per patient.

Visiting
Visiting is restricted to two visitors per bed.
Visitors will be requested to wash their hands with soap and water when entering and leaving the cohort ward.
They will not be required to wear apron and gloves unless they are assisting the patient with personal hygiene.

Any food brought in for the patient must be in a lidded container.

Information leaflets are available for all visitors.

Therapy services
All therapy services should continue, the cohort ward should be visited after other areas.

Non essential personnel
Non essential services including the following; Newspaper trolley, Library trolley, sweet trolley, hospital radio. These services will not go onto the cohort ward.
All others will be expected to provide a professional service at all times. If there are any queries please contact the Infection Prevention Team.

Porters
When moving patients on beds/wheelchairs from or to the cohort ward there is no need to wear gloves and aprons unless it is required of you to physically handle the patient.
Hands must be washed with soap and water when entering and leaving the ward.

8.0 POST C.DIFFICILE OUTBREAK (2007): STRATEGY FOR PREVENTION OF PERIOD OF INCREASED INCIDENCE (PII) AND OUTBREAKS

Introduction
- Hyper-virulent, hyper transmissible C.difficile ribotype 027 is now in this hospital & in our local community.
- There remains a constant risk of re-introduction into the hospital from community, holiday-makers & inter-hospital transfer.
- Our recent experience in 2007 has shown that the C.difficile 027 spreads very easily (hyper-transmissible) has severe consequences (hyper-virulent), and is expensive to deal with.
- The winter remains a high risk period and therefore strict adherence to the C.difficile policy is paramount.
Aim

The IPT and Hospital management are committed to doing everything possible to prevent a recurrence of a *C. difficile* outbreak. This is not an easy objective to achieve as some hospitals have had more than one outbreak of *C. difficile* 027. However, adherence to this policy will make another *C. difficile* 027 outbreak less likely to occur.

**Key actions required to achieve this aim are:**

1. Seek and contain strategy
2. Zero tolerance to any measures, procedures or practice that will increase the risk of *C. difficile* outbreak.

**Practicalities of actions required:**

1. Implement, monitor, audit and educate all staff about *C. difficile* prevention measures (IPT and Divisions)
2. Isolation facility/cohort facility MUST be available at all times for unexplained diarrhoea (side rooms) as well as *C. difficile* diarrhoea (dedicated *C. difficile* ward).
3. Daily review of *C. difficile* patients by IPT and weekly reviews by Consultant Microbiologist and Consultant Gastroenterologist as necessary.
4. IPT to perform root cause analysis on all *C. difficile* cases and feed the results back to relevant clinical teams in order to inform improvement in practice.

- **Definitions:**
  - Period of Increased Incidence (PII): Two or more new cases (>48 hours post admission, not relapses) in a 28 day period on a ward
  - Outbreak: Two or more cases caused by the same strain related in time and place over a defined period that is based on the date of onset of the first case. The decision will be made by the DIPC following analysis of the cases.
  - Participate in yearly Health Protection Agency random sampling *C. difficile* Ribotyping or as indicated by clinical severity.
  - Microbiology laboratory to continue to store all CDT positive samples

9.0 **AUDITABLE OUTCOMES**

1. Cleaning and environmental audits
2. Time taken to transfer confirmed CDI patients to CDI Ward (Standard is 2 hours)
3. *C. difficile* death certification audit using the Healthcare Commission pro-forma
4. Isolation audits. Are patients with unexplained diarrhoea in siderooms?
5. Handwashing audits
6. Audit of all-cause mortality within 30 days of diagnosis of CDI. This should be less than 21%. If greater than 21%, further action required (Ref number 5, DH document)

7. High Impact Intervention No 7 - Care bundle to reduce the risk from *Clostridium difficile* (Saving Lives)
APPENDIX A

FLOW CHART FOR MANAGEMENT OF CLOSTRIDIUM DIFFICILE 027 OUTBREAK (CDI) IN COHORT WARD, JPUH

Patient symptomatic with diarrhoea (i.e. stool is watery, takes shape of container, BS 5/6/7)

IMPLEMENT THE FOLLOWING IMMEDIATELY
- Contact precautions
- Isolate/cohort
- Disinfection/cleaning/dedicate equipment
- Antibiotic Review
- Diligent hand washing with soap & water (Alcohol gel not effective)

Box A

Notify Infection Control Urgently

Notify Medical Team

Comence stool chart

Send stool for M/C/S & C.diff toxin test URGENTLY. If out of hours discuss with on-call infection control nurse

Urgent Medical Review
1) Assess severity *
2) Stop precipitating antibiotics if possible
3) Depending on severity of symptoms commence Flagyl PO 400 mgs TDS. If “severity indicators” are present commence oral Vancomycin 125 mgs QDS
4) Inform Consultant Microbiologist

Infection Control notifies ward patient is C.diff toxin Positive

Toxin negative

Medical review of patient

Diarrhoea still present. Remain in isolation on original ward

Diarrhoea stopped more than 72 hrs. Discuss with ICT re-transfer out of Cohort Ward Clearance

Stool sample not required

Send repeat stool specimen for C.diff toxin if still clinically indicated

* Severity indicators:
- Fever
- Raised WBC
- Low Albumin
- Raised CRP/ Dehydration
- Abdominal tenderness/pain
- Hypokalemia

Amended 15.09.11
Review date: Sept 2014
Version 2
Reviewers had to make a judgment on the likelihood of \textit{C. difficile} infection (CDI) contributing to or being the main cause of an individual's death based on their review of that person's records / case notes. Each case was assessed by at least two reviewers who then discussed their assessment of contribution / cause of death and agreed a joint assessment.

The questions below were used to help reviewers make these judgments – they were not in themselves used to determine the final assessments directly.

### Cause of Death

Please specify if and how CDI was mentioned on the patient's death certificate

- [ ] Yes
- [ ] No
- [ ] Unable to determine

How would you categorise the patient's condition on admission?

- [ ] The patient had an acute or chronic condition expected to be rapidly fatal within 1 month
- [ ] The patient had an acute or chronic condition expected to be fatal within 1-12 months
- [ ] The patient had an acute or chronic condition expected to be fatal in over 12 months
- [ ] The patient had an acute or chronic condition not expected to be fatal
- [ ] Insufficient data to categorise as above

If insufficient data, please specify

Was there evidence that the patient was recovering from the illness for which they were admitted?

- [ ] Yes
- [ ] No
- [ ] N/A
- [ ] Unable to determine

Was there evidence that the patient died as a direct result of the admitting illness?

- [ ] Yes
- [ ] No
- [ ] N/A
- [ ] Unable to determine
Aside from CDI, what other serious illnesses were diagnosed in hospital?

<table>
<thead>
<tr>
<th>Illness</th>
<th>Comment on severity</th>
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<td></td>
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</tbody>
</table>

Was there evidence that diarrhoea and / or other symptoms and signs of CDI had improved before death?

- [ ] Yes
- [ ] No
- [ ] N/A
- [ ] Unable to determine

Was any of the following present after diagnosis of CDI?

<table>
<thead>
<tr>
<th>Marker</th>
<th>Yes</th>
<th>No</th>
<th>Not measured or recorded</th>
</tr>
</thead>
<tbody>
<tr>
<td>White cell count &gt; 15,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creatinine level &gt; 150</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Albumin level &lt; 25</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CRP level &gt; 50</td>
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<td></td>
</tr>
<tr>
<td>Fever &gt; 38°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abdominal pain, tenderness or distension</td>
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<td></td>
</tr>
<tr>
<td>Diarrhoea &gt; 5 times a day</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deterioration in mental status not explicable by other illness</td>
<td></td>
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</tbody>
</table>

Was there evidence that the clinical course was:

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<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unable to determine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compatible with death from an admission illness?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with death from a pre-existing illness?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with death from a complicating illness (not CDI)?</td>
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<td></td>
</tr>
</tbody>
</table>
Does the evidence suggest that in this patient CDI:

<table>
<thead>
<tr>
<th></th>
<th>Definitely</th>
<th>Probably</th>
<th>Possibly</th>
<th>Unlikely</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributed to this patient’s death?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was the primary cause of death?</td>
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Please comment on the above:
Guidance on counting deaths from *Clostridium difficile (C diff)* in the East of England

1. **Context**

The Healthcare Commission report into *C diff* at Maidstone and Tunbridge Wells highlights the importance of accurately counting the numbers of people whose death was either directly caused, or contributed to, by *C diff*. This paper gives guidance to Trusts on how to determine the contribution of *C diff* to deaths.

Since we do not have clear information on outcomes of *C diff* infection in the East of England, we are requesting information on the number of deaths retrospectively from April 2007, to identify the number of deaths on a monthly basis during 2007/8. It is also needed prospectively, so we can accurately monitor progress with tackling *C diff* across the East of England. The consistent approach described below will allow accurate monitoring to take place.

2. **Method for counting deaths**

In their recent report on *C diff* outbreaks in Maidstone & Tunbridge Wells Trust the Healthcare Commission stated that ‘reliance on death certification leads to an underestimate of the contribution of *C diff* infection to the deaths of patients.’ We are therefore proposing that Trusts in the East of England follow a similar methodology as used by the Healthcare Commission in Maidstone, and should not rely solely on death certification to count deaths.

The method is as follows:

1. Trusts to identify all patients who have died whilst an in-patient in the Trust, in whom there had been a positive laboratory diagnosis of *C diff* during the inpatient stay leading up to their death.

2. For each patient identified, a full case note review, with collecting of any further information that is required, to be undertaken by a senior experienced clinician. This is to determine whether *C diff* was the main cause, or a contributory cause of death.

3. The following criteria have been recommended by microbiologists on the East of England HCAI Task Group, and should be used to determine whether *C diff* was the main cause or a contributory cause of death.

3. **Criteria**

**Main Cause**

*C Difficile* was directly responsible for the patient’s death

1. Definite cause
   - A clinical course that is compatible with severe or fulminant *C diff* that persisted to time of death.
   - Evidence of Pseudomembranous colitis on autopsy or lower GI imaging if results are available
Other conditions present that the clinician reviewing the case did not consider to have caused the death.

2. Probable cause
   - A clinical course that is compatible with severe or fulminant C diff that persisted to time of death
   - Evidence of Pseudomembranous colitis on autopsy or lower GI imaging usually absent
   - Other serious conditions present that were either apparently not serious and/or the clinician reviewing the case felt strongly that C diff infection was more likely to be the main cause of death.

3. Possible cause of death
   - Clinical course compatible with C diff with evidence that the infection persisted to the time of death
   - Other conditions present which may have caused death, clinician reviewing the case unable to determine with confidence whether this or C diff was the main cause of death

4. Unlikely
   - C diff present and persisted to the time of death but clinical course suggests that other illness (es) were more likely to be the primary cause of death.

5. No
   - Clinical course incompatible or highly unlikely to be compatible with C diff being the cause of death.

Contributory cause
   - The clinician reviewing the notes is of the view that the timing of the patient’s death was definitely or probably influenced by their developing C diff infection i.e. they would not have died when they did if they had not had C diff infection.

4. Reporting requirements

Trusts are expected to report to their commissioning PCTs (for onward reporting to the SHA) deaths where C diff was definitely or probably the main cause of death (main cause) and deaths where C diff was definitely or probably a contributory factor (contributory cause).

The numbers of deaths on a monthly basis from 1 April 2007 are to be received by the SHA, by 15 November 2007.

Trusts are asked to prospectively report all C diff deaths on a monthly basis, using the same method, the report being due by 20th of the following month.

When a patient with a positive result for C diff dies, the reviewing doctor is required to consider the agreed criteria to establish the underlying cause of death and contributory factors.

All deaths in which C diff is identified as a main cause or contributory factor should be recorded as a serious untoward incident and be subject to full root cause analysis.
The Trust’s risk and governance team should immediately be notified of the death and the team should maintain a database of all *C diff* deaths.

Infection Control reports to the Trust boards should include reporting of trends in *C diff* cases, all deaths associated with *c diff* and complications of *c diff* including colectomies and admissions to ITU because of *C diff* infection.

5. **Death Certification - Letter from the Chief Medical Officer**

Trusts are reminded that on 3 October 2007 the Chief Medical Officer issued a letter to all doctors on the subject of Healthcare Associated Infection and death certification. The following is an extract from that letter.

*It is a matter of clinical judgment to decide whether a condition present at or just before death contributed to the patient’s death. If an infection was part of the sequence of events that directly led to the death, this should be recorded in part 1 of the certificate. If the infection contributed, but was not part of this direct sequence leading to death, this should be written in part 2.*

*If a patient has had an infection that the doctor deems to have caused or contributed to death, the doctor should provide as accurate and detailed information as is possible about the site or manifestation of that infection (for example wound, bloodstream, or gastrointestinal infection); the source or route of infection (such as healthcare or community acquired, device-associated, water- or food-borne); the infecting organism, including resistance to antibiotics (for example MRSA, *C. difficile*, extended spectrum beta-lactamase positive *E. coli*). Diseases or treatments, including chemotherapy, radiotherapy, immunosuppressant drugs that may have reduced the patient’s resistance to infection and the presence of implants and medical devices should also be included.*

The criteria identified above may be helpful to doctors in deciding on death certification.

6. **Healthcare Commission Cause of Death proforma**

We have attached a copy of the proforma used in the case note review in Maidstone & Tunbridge Wells Hospital Trust for your information, you may find this helpful. The Healthcare Commission has kindly agreed that we may share this with you.
<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>Separate hard lumps, like nuts (hard to pass)</td>
</tr>
<tr>
<td>Type 2</td>
<td>Sausage-shaped but lumpy</td>
</tr>
<tr>
<td>Type 3</td>
<td>Like a sausage but with cracks on its surface</td>
</tr>
<tr>
<td>Type 4</td>
<td>Like a sausage or snake, smooth and soft</td>
</tr>
<tr>
<td>Type 5</td>
<td>Soft blobs with clear-cut edges (passed easily)</td>
</tr>
<tr>
<td>Type 6</td>
<td>Fluffy pieces with ragged edges, a mushy stool</td>
</tr>
<tr>
<td>Type 7</td>
<td>Watery, no solid pieces ENTIRELY LIQUID</td>
</tr>
</tbody>
</table>

**Type 7 - Obtain sample and send to laboratory. Inform Infection Control**

March 2007
11.0 REFERENCES


2. Emergence of C.difficile Associated Disease in Canada, the United States of America and Europe. Ed. J. Knijper et al. European Study Group for C.diff (ESGCD) and European Centre for Disease Prevention and Control (ECDC).


4. Saving Lives: Reducing infection delivery clean and safe care:-
   - High Impact Intervention No 7 – C.diff DH2007
   - Antibiotic Prescribing – Best Practice Guide

5. Clostridium difficile infection: How to deal with the problem. Department of Health, Document Ref 287860, January 2009
### Equality Impact Assessment

**Policy or function being assessed:** Clostridium Difficile Infection policy  
**Department/Service:** Infection Prevention & Control  

**Assessment completed by:** Linda Hawtin  
**Date of assessment:** 17/10/11

| 1. | **Describe the aim, objective and purpose of this policy or function.** | **Care for all patients with CDI, confirmed by a laboratory specimen result, on the cohort ward.**  
**To prevent cross infection.**  
**To allow concentrated; specialist medical, nursing, therapeutic and infection control input for those patients affected by *Clostridium difficile* diarrhoea.**  
**To prevent the spread of *Clostridium difficile* spores throughout the Trust.**  
**To allow meticulous decontamination of wards contaminated with *Clostridium* spores.**  
**To reduce the incidence of *Clostridium difficile*.** |

| 2i. | **Who is intended to benefit from the policy?** | **Staff ✓ Patients ✓ Public ✓ Organisation ✓** |

| 2ii | **How are they likely to benefit?** | Fewer patients acquiring *C diff*, those who are diagnosed with *C diff* will be treated in a timely and professional manner |

| 2iii | **What outcomes are wanted from this policy?** | All practitioners will know the appropriate treatment for patients with |
For Questions 3-11 below, please specify whether the policy/function does or could have an impact in relation to each of the nine equality strand headings:

<table>
<thead>
<tr>
<th>Question</th>
<th>Impact on People Due to Specific Characteristics</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Are there concerns that the policy does or could have a detrimental impact on people due to their race/ethnicity?</td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>4.</td>
<td>Are there concerns that the policy does or could have a detrimental impact on people due to their gender?</td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>5.</td>
<td>Are there concerns that the policy does or could have a detrimental impact on people due to their disability?</td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>6.</td>
<td>Are there concerns that the policy does or could have a detrimental impact on people due to their sexual orientation?</td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>7.</td>
<td>Are there concerns that the policy does or could have a detrimental impact on people due to their pregnancy or maternity?</td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>8.</td>
<td>Are there concerns that the policy does or could have a detrimental impact on people due to their religion/belief?</td>
<td><strong>N</strong></td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td>Evidence</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>----------</td>
</tr>
<tr>
<td>9. Are there concerns that the policy does or could have a detrimental impact on people due to their <strong>transgender</strong>?</td>
<td>N</td>
<td>If yes, what evidence do you have of this? Eg. Complaints/Feedback/Research/Data</td>
</tr>
<tr>
<td>10. Are there concerns that the policy does or could have a detrimental impact on people due to their <strong>age</strong>?</td>
<td>N</td>
<td>If yes, what evidence do you have of this? Eg. Complaints/Feedback/Research/Data</td>
</tr>
<tr>
<td>11. Are there concerns that the policy does or could have a detrimental impact on people due to their <strong>marriage or civil partnership</strong>?</td>
<td>N</td>
<td>If yes, what evidence do you have of this? Eg. Complaints/Feedback/Research/Data</td>
</tr>
<tr>
<td>12. Could the impact identified in Q.3-11 above, amount to there being the potential for a disadvantage and/or detrimental impact in this policy?</td>
<td>Y N</td>
<td>Where the detrimental impact is unlawful, the policy or the element of it that is unlawful must be changed or abandoned. If a detrimental impact is unavoidable, then it must be justified, as outlined in the question above.</td>
</tr>
<tr>
<td>13. Can this detrimental impact on one or more of the above groups be justified on the grounds of promoting equality of opportunity for another group? Or for any other reason? Eg. providing specific training to a particular group.</td>
<td>Y N</td>
<td>Where the detrimental impact is unlawful, the policy or the element of it that is unlawful must be changed or abandoned. If a detrimental impact is unavoidable, then it must be justified, as outlined in the question above.</td>
</tr>
</tbody>
</table>

### Specific Issues Identified

<table>
<thead>
<tr>
<th>Issue</th>
<th>Page/paragraph/section of policy that issue relates to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
</tbody>
</table>
## 15. Proposals

How could the identified detrimental impact be minimised or eradicated?

If such changes were made, would this have repercussions/negative effects on other groups as detailed in Q. 3-11?

<table>
<thead>
<tr>
<th>Y</th>
<th>N</th>
</tr>
</thead>
</table>

## 16. Given this Equality Impact Assessment, does the policy need to be reconsidered/redrafted?

<table>
<thead>
<tr>
<th>Y</th>
<th>N</th>
</tr>
</thead>
</table>

## 17. Policy/Practice Implementation

Upon consideration of the information gathered within the equality impact assessment, the Director/Head of Service agrees that the policy/practice should be adopted by the Trust.
18. Proposed Date for Policy/Practice Review

Please detail the date for policy review (3 yearly): 3 yearly by the Head of Infection Prevention & Control

19. Explain how you plan to publish the result of the assessment? *(Completed E.I.A’s must be published on the Equality pages of the Trust’s website).*

Intranet

20. The Trust Values

In addition to the Equality and Diversity considerations detailed above, I can confirm that the four core Trust Values are embedded in all policies and procedures.

They are that all staff intend to do their best by:

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Clostridium Difficile Infection Policy
Author: Linda Hawtin – Head of Infection Prevention & Control & Mandy Hoadley - Infection Prevention & Control Specialist Nurse
Next Review: October 2014

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Putting patients first, and they will:
  - Provide the best possible care in a safe clean and friendly environment,
  - Treat everybody with courtesy and respect,
  - Act appropriately with everyone.

Aiming to get it right, and they will:
  - Commit to their own personal development,
  - Understand theirs and others roles and responsibilities,
  - Contribute to the development of services

Recognising that everyone counts, and they will:
  - Value the contribution and skills of others,
  - Treat everyone fairly,
  - Support the development of colleagues.

Doing everything openly and honestly, and they will:
  - Be clear about what they are trying to achieve,
  - Share information appropriately and effectively,
  - Admit to and learn from mistakes.

I confirm that this policy does not conflict with these values. √ TICK (√)