Maidstone and Tunbridge Wells NHS Trust

Ref: FOI/GS/ID 6168

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Freedom of Information Act 2000

I am writing in response to your request for information made under the Freedom of Information Act 2000 in relation to Compromising Patient Care.

You asked:
Can I be clear what is the Trusts protocol for caring for a patient who is a C Difficile carrier?

Can you please send to me the Trusts policy and protocol please for a c difficile carrier?

Trust response:

Please find attached our C diff policy as requested. We have also included the C diff leaflet.

The Trust protocol for caring for patients who have C diff carriage is:

- Inform medical and nursing team of diagnosis
- Review with Consultant Microbiologist to consider any changes to existing antimicrobial treatment or any treatment for C diff
- C diff status documented in patient's notes and on electronic records
- Barrier nurse in side room
- Hands to be washed with soap and water instead of alcohol gel
- Review by medical team and IPC team
- Information leaflet provided to patient

Policy and Procedure for the Control and Management of *Clostridium difficile*

Target audience:	All healthcare professionals working within the Trust, including bank and agency staff, allied health professionals and students
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Executive lead:	Chief Nurse
Directorate:	Corporate Nursing
Specialty:	Infection Prevention and Control
Supersedes:	Control and management of *Clostridium difficile* (Version 3.0, June 2014) Control and management of *Clostridium difficile* (Version 3.1, June 2017)
Approved by:	Infection Prevention and Control Committee, 19th October 2017
Ratified by:	Policy Ratification Committee, 12th February 2018
Review date:	February 2022

Document history

Requirement for document:	• Maintaining patient safety • To reduce avoidable healthcare associated infection • To comply with Department of Health/Health Protection Agency guidance • To comply with the Health and Social Care Act 2010 and the code of practice (Hygiene Code) and subsequent revisions to date • To comply with the recommendations of the Healthcare Commission investigation into outbreaks of *C. difficile* at Maidstone and Tunbridge Wells NHS Trust 2007 • To comply with Care Quality Commission (CQC) requirements
Cross references (external):	1. CMO/CNO. (21st December 2005). Letter: Infection caused by *Clostridium difficile*. 2. National Standards Group: Report to the Department of Health (2004) 3. Department of Health. (May 2007b). Saving Lives: High Impact Intervention Number 7: Reducing the risk of infection from and the presence of *Clostridium difficile*. 4. Department of Health. (2007d). Saving Lives: Reducing infection, delivering clean and safe care – Antimicrobial prescribing. 5. Department of Health. (2007e). Saving Lives: Isolating patients with healthcare-associated infection. 6. Healthcare Commission. (October 2007). Investigation into outbreaks of *Clostridium difficile* at Maidstone and Tunbridge Wells NHS Trust. 7. HPA/DH (2009) *Clostridium difficile* – How to deal with the problem 8. Health and Social Care Act 2010: Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance 9. Department of Health. (March 2012 and May 2013). Updated guidance on the diagnosis and reporting of *C. difficile*. 10. Tanner et al, JHI (2009) 71, 239-44. Waterlow score to predict patients at risk of developing *Clostridium difficile*-associated disease. 11. CQC Outcome 8 (Regulation 12). Cleanliness and Infection Control 12. NHS Improvement (February 2019). *Clostridium difficile* infection objectives for NHS organisations in 2019/20 and guidance on the intention to review financial sanctions and sampling rates from 2020/21

Associated documents (internal):	• Environmental Disinfection Policy and Procedure [RWF-OPPPCSS-C-PATH11] • Infection Prevention and Control Policy and Procedure [RWF OPPPCSS-C-PATH15] • Waste, Policy and Procedure for the Management of Healthcare [RWF-OPPPCS-NC-FH6] • Standard Infection Control Precautions Policy and Procedure [RWF-OPPPCSS-C-PATH26] • Hand Hygiene Policy and Procedure [RWF-OPPPCSS-C-PATH13] • Isolation Policy and Procedure [RWF-OPPPCSS-C-PATH16] • Policy and Procedure for the closure of a ward or bay to admission, discharges or transfers due to outbreak of infection [RWF-OPPPCSS-C-PATH9] • Policy and procedure for the assessment of patients presenting with diarrhoea [RWF-OPPPCSS-C-PATH10] • *C. difficile* care pathway and risk assessment [RWF-OPF-CSSS-PATH4] • Policy and procedure for the use of faecal containment systems [RWF-OPPPCS-C-NUR8] • Policy for the management of an outbreak of communicable disease [RWF-OPPPCSS-C-PATH25] • Antimicrobial prescribing policy and procedure [RWF-OPPPCSS-C-PHAR10] • Probiotic yoghurt drinks, Protocol for the use of Actimel [RWF-OPPM-CSS59] • Clostridium difficile carriage [STANDARD PRINT LEAFLET] [RWF-OPLF-PCS171] • Clostridium difficile carriage [LARGE PRINT LEAFLET] [RWF-OPLF-PCS188] • Clostridium Difficile Diarrhoea [STANDARD PRINT LEAFLET][CORE] [RWF-OPLF-PCS9] • Clostridium Difficile Diarrhoea [LARGE PRINT LEAFLET][CORE] [RWF-OPLF-PCS153] • Clostridium difficile, Going home with [STANDARD PRINT LEAFLET] [RWF-OPLF-PCS132] • Clostridium difficile, Going home with [LARGE PRINT LEAFLET] [RWF-OPLF-PCS133]

Keywords:	*Clostridium difficile*	diarrhoea	isolation
	antibiotic	C.diff	infection
	carrier	*C.difficile*	

Version control:		
Issue:	**Description of changes:**	**Date:**
1.0	New document to superseded those listed on the cover	July 2009
2.0	Updated document incorporating new guidance and changing the terminology pre- and post-48 hour to pre and post-72 hour to come into line with guidance.	April 2012
3.0	Updated document incorporating new guidance. Addition of *C. difficile* risk assessment. Addition of MVLA in diagnosis. Addition of *C. difficile* panel	June 2014
3.1	Extended review date from June 2016 to December 2017, by Infection Prevention and Control Committee Chair's action; no other amendments.	June 2017
4.0	Updated document. Addition of flowchart for the collection of stool specimens. Addition of Lapses of Care. Removal of metronidazole from treatment algorithm. Removal of references to designated cohort areas. Removal of appendix: Key recommendations for the control and reduction of C. difficile. Introduction of C. difficile Care Bundle to replace C. difficile integrated care pathway	February 2018
4.1	Updated to include the new case assignment definitions published in February 2019	April 2019

Summary for

Control and Management of *Clostridium difficile*

This policy is necessary to provide staff with clear information for the effective control and management of *Clostridium difficile*.

This policy describes the approach which must be used to minimise the acquisition and spread of *Clostridium difficile* infection and to manage individual patients with infection or colonisation appropriately.

The policy complies with the Health and Social Care Act 2010 and the code of practice (Hygiene Code) and subsequent revisions to date, and with Department of Health/ Health Protection Agency guidance, *Clostridium difficile* infection*:* How to deal with the problem and subsequent updated guidance.

Contents

1.0 Introduction, purpose and scope

Clostridium difficile (*C. difficile*) is a spore forming Gram positive anaerobic bacillus. The spores are highly resistant to heat, chemicals, desiccation (drying) and exposure to air and can survive for long periods of time in the environment.

Transmission is by the faecal-oral route via spores. Up to 5% of the adult population and up to 36% of hospitalised patients carry the organism.

The major risk factors for acquisition of *C. difficile* disease are treatment with broad spectrum antibiotics (especially quinolones, clindamycin, aminopenicillins and cephalosporins), age over 65 years, use of proton pump inhibitors, poor hygiene (both personal and environmental) and a Waterlow score of >20.

Key elements in the pathogenesis of disease are:

- antibiotics disturb the normal gut flora affecting some patients more than others;
- the spores of *C. difficile* are the transmissible form and contaminate the environment, where they survive for long periods;
- when ingested the spores germinate in the disturbed gut;
- the *C. difficile* bacteria produce two principal toxins – A and B – which cause diarrhoea and colitis;
- the attack rate is variable (greater in older patients), complicating the understanding of the epidemiology of outbreaks.
- Endogenous infection may occur in individuals who are carriers and are then challenged with broad spectrum antibiotics

The clinical presentation ranges from mild diarrhoea to severe colitis with dehydration, pseudomembranous colitis, megacolon and perforation.

- **Mild *C. difficile* infection (CDI)** is not associated with a raised white cell count (WCC); it is typically associated with <3 stools of type 5 to 7 (as determined by the Bristol Stool Scale) per day
- **Moderate CDI** is associated with a raised WCC that is </=15 $x10^9$/L; it is typically associated with 3 to 5 stools per day
- **Severe CDI** is associated with a WCC of >15 $x10^9$/L, and/or an acute rising serum creatinine (50% increase above baseline), or a temperature of >38.5°C, or evidence of severe colitis (abdominal or radiological signs). The number of stools may be a less reliable indicator of severity.
- **Life-threatening CDI** includes hypotension, partial or complete ileus or toxic megacolon, or CT evidence of severe disease.

C. difficile causes antibiotic-associated diarrhoea and pseudomembranous colitis (PMC). It occurs sporadically in the community and can be sporadic, endemic or epidemic in hospitals and nursing homes.

Joint guidance from the Health Protection Agency and Department of Health was published in December 2008. This guidance contains key recommendations for the control and reduction of *C. difficile* which are to be implemented by way of this procedure.

This procedure complies with the recommendations of the Public Health England (PHE) updated guidance 2013 and the Health and Social Care Act 2010 and the code of practice (Hygiene Code) and subsequent revisions to date.
This document applies to all healthcare professionals working within the Trust, including bank and agency staff, allied health professionals and students and ensures that they are aware of how to reduce the risk of *Clostridium difficile* associated diarrhoea and cross infection and how to care appropriately for patients with *Clostridium difficile* infection and those identified as *Clostridium difficile* carriers.

This procedure is based on underlying principles which have been recognised as best practice in publications since the policy was last updated

The Operating Framework for the NHS in England 2014/15 states there is a continuing focus on reducing *C. difficile* infections.

2.0 Definitions / glossary

Term	Definition
Barrier nurse	A set of stringent infection control techniques used in **nursing**. The aim of **barrier nursing** is to protect staff managing patients with an identified or suspected infection and also reduce the risk of spreading infection to others
CDT	*Clostridium difficile* toxin – Not the preferred terminology , identifies the presence of toxins in the faeces
***C. difficile* infection (CDI)**	One episode of diarrhoea, defined either as stool loose enough to take the shape of a container used to sample it or as Bristol Stool Chart types 5–7 (Appendix 5), that is not clearly attributable to any other cause, including medicines and that occurs at the same time as a positive result in two tests including toxin EIA (GDH plus toxin EIA or NAAT plus toxin EIA) and/or endoscopic evidence of pseudomembranous colitis (PMC).
***C*. difficile carrier**	An individual who is found, on stool testing, to be GDH and NAAT positive but toxin negative. The individual is at high risk of developing CDI if they receive broad spectrum antibiotics
Cohort nursing	The practice of nursing patients with the same infection together in the same room, bay or ward
Community onset community associated CDI (COCA)	Cases that occur in the community (or within two days of admission) when the patient has not been an inpatient in the Trust reporting the case in the previous 12 weeks.
Community onset healthcare associated CDI (COHA)	Infection which arises in the community (or within two days of admission) when the patient has been an inpatiemnt in the Trust reporting the case in the previous four weeks
Community onset indeterminate	Cases that occur in the community (or within two days of admission) when the patient has been an inpatient in the trust

Term	Definition
association CDI (COIA)	reporting the case in the previous 12 weeks but not the most recent four weeks
EIA	Enzyme immune assay
Enteric precautions	Implementation of barrier precautions for a patient or patients with diarrhoeal symptoms; which may include infections such as, C. *difficile*, rotavirus, or norovirus
GDH	A glutamate dehydrogenase (GDH) test detects an antigen that is produced in high amounts by *C. difficile*, both toxin and non-toxin producing.
Gram positive anaerobic bacillus.	Description of the bacteria, identified in laboratory diagnosis -how it grows and it's shape
Hospital onset healthcare associated CDI (HOHA)	Infection which arises and is diagnosed on day 2 onwards after admission
MVLA (enhanced finger printing)	Multilocus variable-number tandem repeat analysis (MLVA) for typing and subtyping
NAAT	Nucleic Acid Amplification Test (also known as polymerase chain reaction PCR) that detects the presence of toxin gene(s).
Outbreak of C. difficile infection	Either ○ two or more cases caused by the same strain (confirmed by ribotype and MVLA type) related in time and place over a defined period that is based on the date of onset of the first case or ○ three cases of C. *difficile* arising within a 28 day period on the same ward
Period of increased incidence (PII) of CDI	One or more new cases (occurring >72 hours post admission, not relapses) in a 28-day period on a ward. Prompting weekly auditing of infection prevention and control practice on an affected clinical area for a minimum of 3 weeks
Pre-72 hour CDI	Infection diagnosed on a specimen taken on the day of admission, the next day or the day after that.
Pseudomembranous colitis	Inflammation of the large intestine (colon) due to an overgrowth of *Clostridium difficile* bacteria. The colitis results from the production of toxins, A (enterotoxin) and B (cytotoxin).
RCA	Root Cause Analysis- investigation into the cause of an incident or case
Waterlow	The **Waterlow score** gives an estimated risk for the development of a pressure sore in a given patient. The assessment tool was developed by Judy **Waterlow**.

3.0 Duties

Person/Group	Duties
Chief Executive	• Has overall responsibility for the control and management of *C. difficile* in the Trust • Must ensure that the Trust has appropriate staff and resources to manage this policy and procedure
Director for Infection Prevention and Control (DIPC)	• Will take steps to ensure that all staff adhere to this policy • Is responsible for auditing/monitoring compliance with the policy and reporting findings to the Infection Prevention and Control Committee (IPCC) • Is directly accountable to the Chief Executive
Infection Prevention and Control Team	• Is responsible for promoting this policy and providing training as required • Is responsible for maintaining records of *C.difficile* cases • Is reposnsible for reporting new cases to ward staff in a timely manner and providing advice regarding appropriate managment of individual cases • Is responsible for emailing the clinical teams to inform them of the case and requesting completion of RCA • Is responsible for emailing the clinical teams, senior nurses and facilities teams to inform them of the instigation of PII and completing a datix report • Is responsible for auditing complinace with the policy during PII auditing • Is responsible for maintaining mandatory reporting to Public Health England
C.diff Panel	• Is responsible for reviewing and attributing a decision regarding the avoidability of a healthcare aquired *C.difficile* infection • The Panel is chaired by the DIPC and Chief Nurse or their direct deputies,
Infection Prevention and Control Committee	• Is the forum where Matrons as Directorate represenatives will report incidence and outcomes of *C.difficile* cases • Is responsible for reviewing the outcomes and completion of action plans developed following root cause analysis (RCA) and C.diff panel outcomes
Antimicobial Pharmacist	• Is responsible for monitoring the antimicobial prescribing practices within the Trust • Is required to attend RCA meetings to assist with the investigation *into C.difficle* aquisition • Is responsible for reporting audit findings to the IPCC
All managers	• Are responsible for ensuring that their staff are aware

Person/Group	Duties
	of this policy and that they understand and adhere to the measures and protocols contained within
Individual responsibility	• It is the responsibility of each individual member of staff, including bank and agency staff, to comply with the requirements of this policy

4.0 Training / competency requirements

Training will be delivered by the Infection Prevention and Control team through the Infection Prevention and Control induction training and mandatory update training, link representative meetings and ward managers meetings.

All clinical staff are required to undertake Infection Prevention and Control training annually. In the event of a case of *C. difficile* supplementary ward-based training and support will be provided as required

5.0 Procedure

Prevention of *C. difficile* infection depends on several factors and staff, as appropriate, are expected to adhere to the relevant Trust policies:

High levels of environmental cleanliness

- The Trust complies with the National Specification for Cleanliness including monitoring and audit
- See policies and documents listed in ‘Associated documents’ on page 2)

Prudent use of antimicrobials

- Good antimicrobial stewardship
- The Trust Antimicrobial prescribing policy and procedure is available on the intranet, under ‘Policies & guidelines’
- The Antimicrobial Stewardship Group meets regularly to review the Antimicrobial prescribing policy and procedure and monitor implementation.
- Fluoro-quinolones, cephalosporins and clindamycin are not available for use except when approved by a consultant microbiologist

High standards of infection control

- The Trust Infection Prevention and Control policies are available on the intranet, under ‘Policies & guidelines’

Isolation of cases to prevent spread to others

- The Isolation Policy and Procedure is available on the intranet, under ‘Policies & guidelines’

Recognition of patients at increased risk

- A Waterlow score of >20 has a high predictive value for development of *C. difficile* disease when prescribed antibiotics.
- All patients must be assessed for their risk of developing *C. difficile* infection; this must be reviewed weekly (see Appendix 11)

- For patients at high risk of developing *C. difficile* infection, decisions on antibiotic therapy should be discussed with a Consultant Microbiologist

5.1 Diagnosis

5.1.1 All patients who have an episode of diarrhoea (type 5-7 on the 'Bristol stool chart' – see Appendix 5) must be assessed and tested for *C. difficile* according to the stool specimen flowchart (see Policy and Procedure for the Assessment of Patients Presenting with Diarrhoea. and 'Flowchart for the collection of stool specimens' (Appendix 12).

5.1.2 Specimen pots should be filled to at least ¼ full. This is to allow *C. difficile* testing, other faecal culture and any follow-up testing required.

5.1.3 Patients who have had a positive toxin test should be retested at 21 days post diagnosis if symptoms persist despite treatment. Clearance testing is not necessary

5.1.4 Patients aged between 2 and 18 years should be tested for *C. difficile* only where there is a history of antibiotic use in the previous 6 weeks.

Children under the age of 2 years should only be tested if prior approval has been agreed by a Consultant Microbiologist. There is a high rate of asymptomatic carriage of *C. difficile* in this age group.

5.1.5 Patients with continuing diarrhoea who are GDH negative should be re-tested 3 times per week until they become asymptomatic.

5.1.6 Patients identified as C*. difficile* carriers should only be retested if their symptoms significantly worsen or as requested by the Infection Prevention and Control team

5.1.7 Specimens are processed in the laboratory using a two-step procedure. Firstly a GDH EIA which detects a *C. difficile* antigen. All stools which test positive in the GDH EIA are then tested by a sensitive toxin EIA which detects the presence of both Toxin A and B.

- Specimens which are positive on two tests including the toxin EIA are reported as positive
- Specimens which are positive on GDH EIA but negative on toxin EIA test are identified as possible excretors/carriers of *C. difficile*. A NAAT test is then carried out to confirm carrier status.
- Specimens which are positive on NAAT test but negative on toxin EIA test are identified as carriers of *C. difficile*.
- Test runs are carried out twice a day Monday-Friday and once a day at weekends and bank holidays in the Maidstone microbiology laboratory. Results are usually available by 12.30pm and 4.30pm.
- All positive specimens are sent to the reference laboratory for ribotyping.
- Positive specimens are stored for 12 months at -20°C.

Where 2 patients who have been in the same ward area at the same time are found to have C. *difficile* of the same ribotype, a request is made to the Regional Microbiologist for the strains to undergo Multivariant Loci Analysis (MVLA) to further determine whether the strains are identical.

5.1.8 Positive results are emailed to the Infection Prevention and Control Team. The results are then telephoned to ward staff by the Infection Prevention and Control Team before they are available on the Telepath system in order to ensure that the patient is isolated and appropriate management implemented in a timely manner.

5.2 Isolation

5.2.1 Patients with diarrhoea must be assessed promptly using the 'Rapid risk assessment' tool (Appendix 6) and 'Diarrhoea pathway and infection control flowchart' (Appendix 7). Those assessed as pathway 1, 2 or 3 must be isolated in a single room within 2 hours. Those on pathway 4 or 5 should be isolated if possible, but reported to the Infection Prevention and Control Team so they can assist in assessing the patient. All patients with diarrhoea must be barrier nursed using enteric precautions. Wherever possible the windows in the room should be kept closed to avoid spread of environmental contamination by draughts

5.2.2 Patients with a positive diagnosis must be transferred to side rooms within 2 hours if not already isolated. Vacated bed spaces in bays must undergo a Level 3 clean and curtain change as a priority.

5.2.3 There are 2 neutral pressure rooms with positive pressure lobby on Lord North ward. Haematology patients diagnosed with *C. difficile* will be transferred to these rooms whenever possible.

5.2.4 Patients admitted through the Emergency Department (ED) with symptoms of diarrhoea must be assessed and isolated according to the Policy and Procedure for the Assessment of a Patient Presenting with Diarrhoea.

5.2.5 Patients who have previously been diagnosed with *C. difficile* infection or carriage can be identified by an alert on the Patient Administration System (PAS). (This will be activated by the Infection Prevention and Control Team only.) Advice must be sought from a consultant microbiologist prior to any antibiotics being prescribed. Patients in some high risk categories including those who are immunosuppressed may require prophylaxis to prevent relapse of previous infection or progression from carrier status to infection.

5.2.6 Patient information leaflets

Patient information leaflets are available for patients diagnosed with *C. difficile* infection or carriage. A leaflet is also available for patients and their carers providing information on going home with *C. difficile*. Ward staff should be available to discuss any concerns with patients and carers.

5.2.7 Following identification of *C. difficile* infection the following infection control measures must be implemented pending transfer of the patient to a cohort area single room:

- All patients must be barrier nursed used enteric precautions.
- Immediate isolation of the patient in a single room. An en suite bathroom is preferable. Patients who do not have access to en suite facilities must have a commode dedicated for their use.

- Where patients are confirmed as *C. difficile* toxin positive whilst in a bay, the bed space must undergo a Level 3 clean (Appendix 8) following transfer to a side room i.e. be thoroughly cleaned with a solution of Difficil-S, this is to include the bed head equipment, any fixed equipment at the bed space (monitors etc.) and the curtain rail. The curtains must be changed prior to occupation by the next patient. Soft furnishings and touch points on the bed frame must be steam cleaned.
- ALL staff **must** wear aprons and gloves for any direct contact with the patient or the patient's environment or when exposure to faeces is anticipated. Aprons and gloves must be put on outside the isolation room before entering and removed prior to leaving the room and disposed of in an infective waste (orange) bag. Hands must be **washed with soap and water** after removing gloves and prior to leaving the room.
- **The use of alcohol hand disinfectant is not advised, as this is not effective in killing the spores of *C. difficile.***
- The patient should be commenced on the *C. difficile* care bundle (see Appendix 4) whilst awaiting transfer to a side room.
- All patient linen is to be treated as foul/infected and disposed of using the red laundry bag and alginate inner bag system. All bags must be sealed before being removed from the room.
- Transfer to a single room must be arranged as soon as possible. The patient should be transferred within 2 hours of diagnosis unless it has been agreed with the DIPC or Lead Infection Control Nurse for the patient to remain due to overwhelming clinical reasons.
- After the patient has been transferred to another ward, the vacated side room should undergo a Level 4 clean including the use of hydrogen peroxide and silver ion dry fogging (Appendix 8)
- No special precautions, apart from the use of personal protective equipment (PPE) when performing last offices, are required for deceased patients.

5.2.8 *C. difficile* carriers

- The Infection Prevention and Control team will notify wards when a *C. difficile* carrier is identified by immediately informing ward staff by telephone.
- Patients known to be *C. difficile* carriers are identified by an alert on the PAS
- Symptomatic patients who are known to be, or identified as *C. difficile* carriers during admission should be isolated with enteric precautions.
- Asymptomatic carriers who are self-caring and identified as lower risk by the Infection Prevention and Control team, may be nursed in a bay and kept under continuing review
- A recent or current course of antibiotics increases the risk of the patient developing *C. difficile* infection. The consultant

microbiologists must be contacted to discuss the need for prophylaxis for these patients.

- The infection control precautions described in 5.2.7apply also to *C. difficile* carriers

5.3 Environmental cleaning of *C. difficile* isolation rooms

- **Routine.** The area must be cleaned thoroughly on a daily basis at Level 2 (Appendix 8) i.e. using a solution of Difficil-S. Disposable mop heads and cleaning cloths are to be used. Any concerns in relation to the standard of environmental cleanliness must be reported to the Facilities zone manager/zone supervisor immediately to allow prompt rectification of the problem.
- **Discharge.** A Level 4 clean should be carried out. Curtains must be disposed of and replaced.

5.4 Clinical Management of patients with C.*difficile* infection

- The consultant microbiologists will advise on antibiotic management for patients with C.*difficile* infection. Wherever possible antibiotics (except those to treat C.*difficile* infection) should be stopped. See Appendix 9 for 'Guideline for the treatment of Clostridium difficile infection / carriage'.
- *C. difficile* infection frequently relapses and treatment strategies are available to prevent this.
- Patients who are identified as carriers of *C. difficile* may require treatment with prophylactic antibiotics to avoid the development of endogenous infection. See Appendix 9 for details. Advice should be sought from the consultant microbiologists for individual patients.
- All patients on antibiotics and those with C.*difficile* infection are offered probiotic drinks and live yoghurt as part of their treatment (unless contraindicated). Although the scientific evidence for this is not strong, the patients report subjective improvement in symptoms including dyspepsia. **NB.** Live culture drinks are contraindicated in neutropenic patients and those who are lactose intolerant.
- All patients with C.*difficile* infection must be commenced on the '*Clostridium difficile* care bundle' (see Appendix 4) which should be used by all staff caring for the patient.
- Patients with persistent type 7 diarrhoea may require a faecal management system. Patient consent is required before use. The Policy for the Use of Faecal Containment Systems is available on the Trust intranet. Faecal managers are available from the Infection Prevention and Control Office or ITU.
- Patients remain in a single room until they can be discharged to the community, community hospital or rehabilitation. Patients may be transferred within the Trust only for overwhelming clinical need. All cases must be discussed and alternative arrangements agreed with the DIPC or Lead Infection Control Nurse to ensure that appropriate isolation and infection control are maintained.
- Patients may be transferred to community hospitals and nursing homes when they have completed an initial course of treatment and

have also been asymptomatic for a minimum of 5 days (including two days off treatment unless on a reducing course to prevent relapse).

- The West Kent Clinical Commissioning Group (CCG) Infection Prevention and Control lead must be informed of any transfers to community hospitals and Public Health England for nursing homes. The GP must also be informed when a patient is discharged via the electronic discharge notification (EDN).
- The clinical team must complete the '*Clostridium difficile* transfer / discharge checklist' (Appendix 10).
- No special measures are required for deceased patients save for the use of PPE when performing last offices.

5.5 Root cause analysis (RCA)

5.5.1 RCA is carried out for all cases of *C. difficile* infection.

5.5.2 COCA and COIA cases have RCA completed by the CCG infection control team.

5.5.3 COHA and HOHA cases have initial data collection carried out by the ward manager and Infection Prevention and Control Nurse. Following this a multidisciplinary meeting is held, ideally within 5 working days of diagnosis, between ward staff, medical staff, antibiotic pharmacist and Infection Prevention and Control.

5.5.4 The Directorates are responsible for arranging the meetings in a timely way and ensuring attendance at the meeting by medical and nursing staff.

5.5.5 RCA reports and timelines are reviewed at the *C. difficile* Panel by the DIPC and Chief Nurse. The root cause is determined and agreed at this meeting.

5.5.6 The Trust is also required to identify lapses of care which may have contributed to the patient developing *C. difficile* infection.

- The assessment of lapses of care has been agreed across Kent and Medway
- The questions to determine lapses of care are as follows:
  - Was there evidence of transmission in hospital (confirmed by Enhanced Fingerprinting (MVLA)
  - Was there evidence that the most recent 13 week rolling average cleaning audit scores in the period prior to the positive case fell below the required national standard for that area?
  - Was there evidence of non-compliance with choice, duration or documentation of antimicrobials prescribed for the *Clostridium difficile* case under review in the preceding 8 week period (to include primary care prescribing)?
  - Was there evidence that the stool sample was sent in accordance with the Trust diarrhoea pathway?
  - Was there evidence that the patient was isolated in accordance with Trust policy?
  - Was there evidence that the Trust policy for monitoring hand hygiene compliance was implemented and the ward/department achieved the Trust minimum target for compliance?

The outcome is then classified as follows:

- 0 - No sub-optimal care
- 1 - Lapse of care but different management would not have made a difference to the outcome
- 2 - Lapse of care, different management might have made a difference to the outcome
- 3 - Lapse of care, different management would reasonably have been expected to have made a difference to the outcome

5.5.7 RCA reports and action plans are reviewed by the Infection Prevention and Control Committee and monitored by the directorates.

5.6 Periods of increased incidence

5.6.1 A period of increased incidence (PII) is declared for one or more new HOHA cases (occurring from day 2 post admission, not relapses) on a ward or one or more COHA cases on the originating ward from the previous admission. This may be escalated to an incident or an outbreak if further cases are identified within a 28 day period.

5.6.2 The following actions will be taken under direction from the Infection Prevention and Control Team when a PII is identified:

- The Clinical Director, matron, ward manager, facilities manager and antibiotic pharmacist will be informed by the Infection Prevention and Control Team
- Infection Prevention and Control Nurse will report the PII as an incident via the DATIX e-reporting system.
- A weekly *C. difficile* ward audit will be conducted using the modified *C. difficile* HII tool by an Infection Prevention and Control Nurse. The audits will continue on a weekly basis until the score is >90% for 3 consecutive weeks and there have been no more post-72 hour cases of CDI on the ward in that time. Audit results will be fed back to the matron and ward manager.
- The Antibiotic Pharmacist will carry out a weekly antibiotic audit on the ward and feed the results back to the ward manager, matron and medical team.
- The ward will be cleaned at Level 3 daily until the PII has been stepped down
- Where a PII is in place, all rooms are Level 4 cleaned on the discharge of a patient with diarrhoea. For all other patients the room or bed space must be Level 3 cleaned on discharge including Ultra Violet Cleaning (UVC) decontamination for all single rooms where no diarrhoea has been reported.
- All *C. difficile* toxin positive stool specimens from the ward will be referred to the regional reference laboratory for ribotyping.
- The Infection Prevention and Control Team will review the PII weekly.
- An incident meeting will be held if deemed necessary by the DIPC due to continuing increase in cases

- An escalation meeting between Infection Prevention and Control Nurses, ward manager and matron will be held if audit scores are poor for an audit

5.6.3 The PII will be escalated to an outbreak if there is evidence of likely cross infection, when 3 or more cases are seen within 28 days or when ribotyping confirms a link between cases

5.7 Outbreaks

5.7.1 An outbreak of *C. difficile* is defined as 2 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, **or** three cases of *C. difficile* arising within a 28 day period on the same ward.

5.7.2 If, on further investigation there is a link proven between 2 or more cases, the outbreak is reported as a Serious Incident (SI) by the Governance team to the CCG.

5.7.3 Full outbreak investigation is carried out according to the Policy and Procedure for the Management of an Outbreak of Communicable Disease.

5.8 Reporting / surveillance

5.8.1 External reporting

The Trust participates fully in the Department of Health/PHE mandatory *C. difficile* infection reporting system, reporting all cases of in patients over 2 years of age in both inpatients and community patients.

5.8.2 Internal reporting

- C. difficile infection cases are reported to executive managers and other senior Trust management when they arise by the Infection Prevention and Control team by email.
- The Trust Board also receives a monthly verbal report from the DIPC to support the Board level performance dashboard and escalation report.
- The DIPC prepares an annual report to the Trust Board which includes *C. difficile* infection performance.
- *C. difficile* infection cases are reported monthly as an indicator on directorate performance dashboards and outcomes of root cause analysis are reviewed.
- The *C. difficile* panel reports to the IPCC twice a year

5.8.3 Death certification

If a patient with *C. difficile* infection dies, the death certificate should state whether C. *difficile* infection was part of the sequence of events leading directly to death or whether it was the underlying cause of death. If either case applies C. *difficile* infection should be mentioned in Part 1 of the certificate.

If C. *difficile* infection was not part of the sequence of events leading directly to death but contributed in some way to it, this should be mentioned in Part 2 of the death certificate.

Doctors have a legal duty to mention C. *difficile* infection on the death certificate if it was part of the sequence of events leading up to death or contributed to it in some way.

APPENDIX 1

Process requirements

1.0 Implementation and awareness

- Once ratified the Policy Ratification Committee (PRC) Chair will email this policy/procedural document to the Corporate Governance Assistant (CGA) who will activate it on the Trust approved document management database on the intranet, under 'Policies & guidelines'.
- A monthly publications table is produced by the CGA which is published on the Trust intranet under 'Policies & guidelines'; notification of the posting is included on the intranet "News Feed" and in the Chief Executive's newsletter.
- On reading of the news feed notification all managers should ensure that their staff members are aware of the new publications.
- This policy and procedure should be read in conjunction with other associated infection Prevention and Control policies
- This policy and procedure will be implemented through Induction and Mandatory training and by raising awareness through the infection prevention and control link nurse network

2.0 Monitoring compliance with this document

- The Director of Infection Prevention and Control will be responsible for monitoring compliance with this procedure on behalf of the Trust.
- The Infection Prevention and Control Team are responsible for auditing compliance with this policy/procedure during the management of each case and reporting audit findings to the Infection Prevention and Control Committee.

3.0 Review

This policy and procedure and all its appendices will be reviewed at a minimum of once every 4 years.

4.0 Archiving

The Trust approved document management database on the intranet, under 'Policies & guidelines', retains all superseded files in an archive directory in order to maintain document history.

APPENDIX 2

CONSULTATION ON: Control and management of *Clostridium difficile*

Consultation process – Use this form to ensure your consultation has been adequate for the purpose.

Please return comments to: Director of Infection Prevention and Control

By date: 16 October 2017

Job title:	**Date sent dd/mm/yy**	**Date reply received**	**Modification suggested? Y/N**	**Modification made? Y/N**
The following staff MUST be included in ALL consultations:				
Corporate Governance Assistant	03/10/17	25/10/17	Y	Y
Chief Pharmacist and Formulary Pharmacist	03/10/17			
Formulary Pharmacist	03/10/17			
Staff-Side Chair	03/10/17			
Emergency Planning Team	03/10/17	07/10/17	N	N
Head of Staff Engagement and Equality	03/10/17	09/10/17	Y	Y
Health Records Manager	03/10/17			
Complaints & PALS Manager	03/10/17			
All individuals listed on the front page	03/10/17			
All members of the approving committee: Infection Prevention and Control Committee	03/10/17			
Other individuals the author believes should be consulted				
Infection Prevention and Control team	03/10/17			
Chief Nurse	03/10/17			
Medical Director	03/10/17			
Chief Executive	03/10/17			
Clinical Directors	03/10/17			
Director of Facilities	03/10/17			
Consultant Microbiologists	03/10/17			
The following staff have given consent for their personal names to be included in this policy and its appendices:				

APPENDIX 3

Equality impact assessment

This policy includes everyone protected by the Equality Act 2010. People who share protected characteristics will not receive less favourable treatment on the grounds of their age, disability, gender, gender identity, marital or civil partnership status, maternity or pregnancy status, race, religion or sexual orientation. The completion of the following table is therefore mandatory and should be undertaken as part of the policy development, approval and ratification process.

Title of document	Control and Management of *Clostridium difficile*
What are the aims of the policy or practice?	Control of infection
Is there any evidence that some groups are affected differently and what is/are the evidence sources?	Epidemiological data shows that *C. difficile* infection is more likely to affect the elderly population
Analyse and assess the likely impact on equality or potential discrimination with each of the following groups.	**Is there an adverse impact or potential discrimination (yes/no).** **If yes give details.**
Gender identity	No
People of different ages	No
People of different ethnic groups	No
People of different religions and beliefs	No
People who do not speak English as a first language (but excluding Trust staff)	No
People who have a physical or mental disability or care for people with disabilities	No
People who are pregnant or on maternity leave	No
Sexual orientation (LGB)	No
Marriage and civil partnership	No
Gender reassignment	No
If you identified potential discrimination is it minimal and justifiable and therefore does not require a stage 2 assessment?	N/A
When will you monitor and review your EqIA?	Alongside this document when it is reviewed.
Where do you plan to publish the results of your Equality Impact Assessment?	As Appendix 3 of this document.

FURTHER APPENDICES

The following appendices are published as related links to the main policy /procedure on the Trust approved document management database on the intranet, under 'Policies & guidelines':

No.	Title	Unique ID	Title and unique id of policy that the appendix is primarily linked to
4	*Clostridium difficile* care bundle	RWF-IPC-FOR-2	This policy
5	Bristol stool chart	RWF-OWP-APP230	Policy and Procedure for the assessment of a patient presenting with diarrhoea [RWF-OPPPCSS-C-PATH10]
6	Rapid risk assessment	RWF-OWP-APP231	Policy and Procedure for the assessment of a patient presenting with diarrhoea [RWF-OPPPCSS-C-PATH10]
7	Diarrhoea pathway and infection control flowchart for the management of patients who present or develop diarrhoea or vomiting symptoms at Maidstone Hospital	RWF-OWP-APP232	This policy
8	Categorisation of levels of environmental cleaning / disinfection	RWF-OWP-APP233	This policy
9	Guideline for the treatment of *Clostridium difficile* infection / carriage	RWF-OWP-APP234	This policy
10	*C. difficile* transfer / discharge checklist	RWF-OWP-APP235	This policy
11	Care plan for a patient who is at risk of developing *Clostridium difficile*	RWF-OPF-CSSS-C-PATH4	This policy
12	Flowchart for the collection of stool specimens	RWF-OPPM-CSS32	Policy and Procedure for the assessment of a patient presenting with diarrhoea [RWF-OPPPCSS-C-PATH10]

NHS
Maidstone and Tunbridge Wells NHS Trust

Clostridium difficile carriage

Information for patients and visitors

What is *Clostridium difficile* (*C. difficile*)?

C. difficile are bacteria that, for some of us, can be part of the normal bacteria in the gut. *C.difficile* diarrhoea can occur when antibiotics are given to treat another infection. Antibiotics reduce the number of both good and bad bacteria in the bowel. When good bacteria are destroyed, *C. difficile*, normally kept under control by the good bacteria, may flourish.

The risk is reduced with simple hygiene procedures, and the effect for a patient can be lessened by quick positive action. Staff, patients and visitors alike can help. You can help us to control this infection by washing your hands.

What does *C. difficile* carriage mean?

A sample of your diarrhoea has been tested and has identified that you have the *C. difficile* bacteria in your bowel. However, further testing we have done on your sample shows that **you do not have an infection caused by *C. difficile.*** This means that this bacteria is part of your normal bowel bacteria and is called *C. difficile* carriage.

Is it serious?

Generally, this is not serious; however, it **does** mean that you could be at increased risk of developing an infection caused by *C. difficile* if you are given any antibiotics to treat another infection. This is because the antibiotics reduce the normal 'good' bacteria in our bodies whilst targeting the bacteria that are causing the infection.

Can it be treated?

In this Trust, when we identify that a patient is a carrier of *C. difficile* we prescribe a course of antibiotics (Vancomycin) to reduce the quantity of *C. difficile* bacteria in the bowel. This will reduce the risk of developing a *C. difficile* infection as a result.

Do I need to be treated in hospital for *C. difficile* carriage?

No. Many people in community settings also carry this bacteria in their bowel. You can go home if you are deemed medically fit for discharge; you do not have to wait until your diarrhoea has stopped. If you feel you would like to go home whilst you still have diarrhoea you will be assessed to see if you are medically fit. If you are going to a nursing or residential home, it is advised to wait until your symptoms have stopped for at least two days and you have returned to your normal bowel movement.

What action will staff take?

All members of staff having direct contact with you and around your bed area will wear disposable aprons and gloves. This acts as a protective barrier to their uniform and clothing and lowers the risk of *C. difficile* being passed from patient to patient. Staff will wash their hands with soap and water following removal of the aprons and gloves.

Will I be isolated?

You will need to be 'barrier nursed' on your current ward. This means that you will be moved to a single room, a blue magnetic sign stating 'enteric precautions' will be placed on your door and all staff and your visitors will be asked to follow the instructions on this sign. If you have no diarrhoea symptoms you will be able to remain in a bay with other patients. A green magnetic sign with a red strip through it stating 'barrier nursing precautions' will be placed on the wall above your head and all staff and your visitors will be asked to follow the instructions on this sign.

What can I do?

Hygiene is the most important factor. Make sure that you wash your hands, especially after using the toilet and before eating your meals and avoid touching dressings. Try to eat and drink as normal. Probiotic drinks (e.g. Actimel), taken twice daily, have been found to help restore the balance of good bacteria. If you are incontinent you should wear hospital nightwear to avoid contaminating your own clothing. If necessary your clothing can be laundered at home. It is advisable to launder them separately from other laundry and on the hottest wash the fabric will tolerate, with an extra rinse cycle if possible.

What about visitors if I am identified as a *C. difficile* carrier?

All visitors must always clean their hands with alcohol gel before coming on to the ward (found on the wall at the entrance to every ward). Although the alcohol based gel does not work on *C. difficile* it will help reduce the risk of other organisms which visitors may bring into the ward.

Your visitors should report to the nurse in charge of the ward for advice. When they visit they will need to wear a plastic apron and disposable gloves which will be at the entrance to the room or bay you are in. Before leaving, these should be removed, the apron first followed by the gloves, and these must be placed in the bin with the orange bag within your bay, room, or area. Your visitors must then wash their hands with water and soap before leaving the room, bay or area. This will reduce the risk to them of acquiring the infection or passing it on to others.

Only two visitors are allowed at a time. It is advised that young children do not visit. Anyone who is not feeling well or is taking tablets that suppress the immune system (for arthritis or asthma, for example) are advised not to visit someone diagnosed with *C. difficile* carriage.

Your visitors can kiss you and hold your hand but thorough hand washing is always recommended after contact. Visitors should sit in a chair rather than on your bed.

Finally, your visitors should not visit any other patients in the hospital on the same visit.

For any further information and advice please speak to the ward manager or the Infection Control Team.

Maidstone and Tunbridge Wells NHS Trust - Infection Control Team:

Maidstone Hospital	☎ 01622 224037
Tunbridge Wells Hospital	☎ 01892 635679

MTW NHS Trust is committed to making its patient information accessible in a range of languages and formats. If you need this leaflet in another language or format please ask one of your clinical care team or the Patient Advice and Liaison Service (PALS). We will do our best to arrange this.

Maidstone and Tunbridge Wells NHS Trust welcomes all forms of feedback from our service users. If the standard of service you have received from the Trust does not meet your expectations, we want to hear from you. Please speak with the ward manager or the nurse in charge in the first instance, or you can contact the **Patient Advice and Liaison Service (PALS)** on:

Telephone: ☎ 01622 224960 or ☎ 01892 632953

Email: mtw-tr.palsoffice@nhs.net

or visit their office at either Maidstone or Tunbridge Wells Hospital between 9.00am and 5.00pm, Monday to Friday.

You can be confident that your care will not be affected by highlighting any areas of concern or making a complaint. The Trust will retain a record of your contact, which is held separately to any medical records. If you are acting on behalf of a patient, we may need to obtain the patient's consent in order to protect patient confidentiality. More information on PALS or making a complaint can be found on the Trust's website: www.mtw.nhs.uk or pick up a leaflet from main reception.

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