POLICY FOR THE MANAGEMENT OF *CLOSTRIDIUM DIFFICILE* INFECTION (CDI) AND PREVENTION OF SPREAD

This guidance does not override the individual responsibility of health professionals to make appropriate decisions according to the circumstances of the individual patient in consultation with the patient and / or carer. Healthcare professionals must be prepared to justify any deviation from this guidance.

INTRODUCTION

This guidance pack is intended to give full advice on the prevention, identification and management of *Clostridium difficile* infection (CDI). It contains a number of elements for reference, which are appendices. It is available on the intranet and in hard copy to relevant clinicians. Some of the documents contained within are for example only, and working copies can be found on all wards (eg the Patient Stool Record Chart).

THIS POLICY IS FOR USE BY ALL STAFF GROUPS

Lead Clinician

Dr Emma Yates — Consultant Microbiologist

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This is the most current document and should be used until a revised version is in place

Key amendments to this guideline:

Date	Amendment	By:
May 2010	Small amendments to include statements about cohort wards (**2.2**) and surveillance(**6.**)	Dr A Dyas
Jan 11	Small amendment to include IV metronidazole (**4.3)**	Dr A Dyas
Oct 2011	Full review of document	Dr A Dyas
May 2015	Full review of document	Dr A Dyas
August 2017	Document extended for 6 months as per TMC paper approved on 22nd July 2017	TMC
December 2017	Sentence added in at the request of the Coroner	
December 2017	Document extended for 3 months as per TLG recommendation	TLG
March 2018	Document extended for 3 months as approved by TLG	TLG
June 2018	Document extended for 3 months as per TLG recommendation	TLG
November 2017 –July 2018	Full Policy Revision	Dr E Yates

Please note text highlighted red is to facilitate insertion of links to documents currently under review

1. Introduction

Clostridium difficile is a Gram-positive, anaerobic spore-forming organism implicated as the main infective cause of antibiotic-associated diarrhoea and pseudomembranous colitis. *C. difficile* can survive for long periods of time in the healthcare environment. Colonisation is acquired by ingestion after contact with a contaminated environment, equipment, other patients or the hands of staff. Approximately 3% of the population carry the organism as part of normal bowel flora without symptoms.

Primary *Clostridium difficile* infection (CDI) is strongly associated with the use of antibiotics prescribed to treat another condition or given prophylactically. CDI occurs when the normal flora of the bowel is disrupted. The main pre-disposing factors in adults are therefore:

1. Acquisition of the organism
2. Subsequent exposure to antibiotics, notably oral cephalosporins, quinolones, clindamycin and broad-spectrum penicillins (e.g. co-amoxiclav)

Overgrowth of the organism within the large intestine and subsequent toxin production causes mucosal damage and inflammation. This gives rise to a diarrhoeal illness, which can vary from mild to a life-threatening form called “pseudomembranous colitis”. The latter condition is characterised by significant damage to the large bowel and may lead to gross dilatation and perforation. Patients may also carry *C. difficile* without symptoms, termed colonisation.

The patient groups at greatest risk of disease are:

- Those over 65 years of age (although any other age group may be susceptible)
- Immunocompromised individuals
- Those who have had gastrointestinal procedures or surgery.

Recurrence of CDI occurs in 15-20% of patients after discontinuation of treatment. Life threatening symptoms develop in 1-3% of patients with CDI. This disease can carry a high mortality rate in the frail elderly.

It has been firmly established that person-to-person transmission can occur in hospital and communal care settings. Outbreaks of infection can be prolonged and difficult to control. Large outbreaks of CDI associated with loss of life have occurred in healthcare facilities and it is therefore essential that the Trust takes appropriate action to minimise the occurrence of CDI and ensures robust management arrangements are in place at all times to prevent secondary spread.

2. Purpose of this policy

This policy provides operational guidance for the prevention, control and management of *C. difficile* associated diarrhoea based on the prevalence of CDI both locally and nationally and takes into account national guidance (Department of Health 2015; Department of Health/Health Protection Agency 2008; Department of Health 2012; Public Health England (PHE) 2013)

The key elements of this policy are:

1. early identification of patients at risk
2. prompt recognition of symptomatic patients with appropriate isolation and implementation of appropriate precautions for these patients
3. early clinical and laboratory diagnosis
4. careful monitoring and symptom management
5. antibiotic stewardship
6. high standards of personal and environmental hygiene and cleanliness
7. completion of Post-Infection Reviews to identify whether a lapse in care contributed to the CDI.

3. Summary

The essential components in the prevention and control of *C.difficile* disease are:

- High index of suspicion:
  - Consider CDI in any patient who has diarrhoea and received antimicrobials in the preceding 3 months
  - Consider CDI in any patient with unexplained diarrhoea and in receipt of cytotoxic chemotherapy
  - Consider CDI in any patient who has an unexplained rising white cell count and/or CRP despite antimicrobial therapy for another condition
  - Consider CDI when there is no clear alternative cause for diarrhoea
- All symptomatic patients must have stool tested promptly
- All symptomatic patients must have each episode of loose stool recorded on a stool chart using the Bristol Stool Chart scale (appendix 2)
- Prudent antibiotic prescribing utilising the Trust antibiotic prescribing guidelines
- Prompt isolation of patients with *C.difficile* diarrhoea and strict infection control practice
- Fastidious hand washing with soap and water in line with the WHO 5 moments of hand hygiene and use of appropriate personal protective equipment
- Enhanced environmental cleaning and the prudent use of high level disinfectant products (under the direction of the IPCT), including Hydrogen peroxide vapour (HPV).

4. *Clostridium difficile* infection risk factors

- Aged ≥65 years
- Multiple co-morbid conditions
- Chemotherapy
- Chronic renal disease
- Immunocompromised
- Gastrointestinal procedures/Bowel surgery
- Enteral feeding/NG tube
- Proton Pump inhibitors (PPI) and H2 antagonists
- Recent healthcare intervention
- Antibiotic therapy; almost all cases of CDI will have a recent history of antibiotic exposure
- Previous diagnosis of CDI

5. Initial management of suspected cases

Refer to
Appendix 1 Patient admission assessment for infection and appendix 3 C.difficile Quick guide

There are a number of causes of diarrhoea in hospitalised patients. The D&V risk assessment tool, located on the reverse of the stool chart, (appendix 2) provides guidance to staff to help determine if the cause of the patient's diarrhoea is likely to be infective in nature and pose a risk to others.

Patients with diarrhoea identified by the tool as high-risk for CDI (Pathway B) should be promptly isolated with single use equipment (appendix 4 C.difficile Care plan) and it is advised that empiric treatment should be commenced pending stool test result.

Patients with a previous diagnosis of *C.difficile* infection
These patients should be identified at point of admission. If the patient is symptomatic they should be assessed as a relapse/recurrence and treatment commenced if appropriate.

Symptoms
Watery diarrhoea: defined as passing type 5-7 Bristol Stool Chart stools which is not deemed normal for that patient in a 24 hours period
Offensive smelling stool which may be green or contain mucous
Abdominal pain/tenderness
Fever
Loss of appetite
Nausea

SIGHT Policy must be implemented at the onset of symptoms – adapted from *Clostridium difficile* infection. How to deal with the problem (2008)

S	Suspect that a case may be infective where there is no clear alternative cause for diarrhoea.
I	Isolate the patient and consult with the Infection Prevention and Control Team (IPCT) while determining the cause of the diarrhoea.
G	GLOVES must be used when giving direct care and APRONS for all contact with the patient and their environment.
H	Hand washing with soap and water must be carried out AFTER each contact with the patient and the patient's environment. Hand wash or gel BEFORE contact.
T	Test the stool for toxin, if the risk assessment indicates, by sending a specimen immediately.

6. Testing for *Clostridium difficile*

Stool samples loose enough to take the shape of the container, submitted from all hospital inpatients (excluding children under 2 years) will be tested routinely for the presence of toxigenic *C.difficile* in accordance with national guidance (Department of Health 2012) using a two-step testing algorithm. Formed stool will not be tested.

Stage 1

Screening test.

Test for presence of GDH (Glutamate dehydrogenase by antigen enzyme immunoassay). This enzyme is present in all strains of *C.difficile*, irrespective of capacity to produce toxin. The test has a very good negative predictive value: that is, if GDH test is negative *C.difficile* is not present in the bowel.

If GDH negative, toxin testing is **not** required.

Stage 2

Confirmation test

All samples which are GDH positive have a test for presence of toxin using a *C.difficile* toxin A and B enzyme immunoassay

Toxin positive: Toxin present; confirms presence of toxigenic *C.difficile* which is actively producing toxin

Toxin negative: *C.difficile* present in bowel, but no demonstration of active toxin production

Samples which are GDH positive (evidence of *C.difficile* presence), but toxin negative (no active toxin production) go on to have a further confirmatory PCR test.

C.difficile PCR looks for presence of the genes which give the organism the capacity to produce toxin, that the initial toxin EIA test was unable to demonstrate as being actively produced at the time of testing.

A *C.difficile* positive sample identified as toxin negative but PCR positive is still a clinically significant result. Although the *C.difficile* identified in the sample has not been demonstrated to be actively producing toxin, it has the capacity to do so, therefore from the infection prevention and control perspective, the patient should be managed in the same way as if the sample was positive via the toxin EIA alone.

Clinical management of patients with a PCR positive stool result is dependent on the symptoms the patient has as it may simply reflect colonisation with *C.difficile* and diarrhoea from another

cause (i.e. norovirus). If CDI present, it is usually associated with early or milder disease, although not invariably.

Summary of testing algorithm and results

Test	Result	Interpretation
GDH	NEGATIVE	No evidence of *C.difficile*
	POSITIVE	Evidence of *C.difficile*
TOXIN A/B	NEGATIVE	Sample referred for Toxin PCR
	POSITIVE	Evidence of Toxigenic *C.difficile* with active toxin production
PCR	NEGATIVE	No evidence of Toxigenic *C.difficile*
	POSITIVE	Evidence of *C.difficile* with toxigenic capacity

Ribotyping
Where there is concern that cross transmission of *C. difficile* has occurred, faecal samples will be referred by the laboratory to the West Midlands Public Health Laboratory for ribotyping.

Repeat testing
Patients who have been confirmed as *C.difficile* positive should ***NOT*** have stool retested to determine clearance of infection. In patients who have been confirmed as *C.difficile* positive, stool may continue to be positive for a number of weeks and detection of organism does not necessarily indicate on-going infection. If the clinical team are concerned about on-going infection with *C.difficile*, the patient should be discussed with the duty microbiologist and/or IPCT.

Testing in recurrent *C.difficile* disease.
For patients who have tested positive for *C.difficile* in the preceding 28 days, stool samples submitted to the laboratory for testing will not routinely be tested for *C. difficile*. The sample will be stored by the laboratory. If the clinical team feel that testing is indicated they should discuss with the duty microbiologist.

Procedure for informing the result
Routine *C.difficile* testing (screening GDH and toxin EIA) is undertaken 7 days a week. Samples should reach the laboratory on the WRH site by 11am for testing the same day. PCR testing for toxins is undertaken every day except Sunday. Testing for these samples is completed the next working day.
C.difficile results are available by approximately 3pm-4pm during the working week.
Both toxin-positive and PCR positive results are communicated to the ward teams by the duty microbiology team (Monday-Friday) or the on-call microbiologist (weekends and bank holidays). Advice on patient management, treatment and on-going review in relation to *C.difficile*, including antimicrobial stewardship, is given. The result, along with the associated clinical advice, is made available through ICE.

Results are also communicated to the IPCT who undertake reviews; ward staff are to ensure appropriate treatment has been commenced and that the appropriate measures have been put

into place, including ongoing completion of stool charts and instigation of the *C.difficile* quick guide and care plan (appendices 3 and 4).

7. Clinical management of patient's with *Clostridium difficile* diarrhoea

General principles

- Stop unnecessary antibiotics
- Stop antiperistaltics and opiates
- Hydration (IVI)
- Nutrition (Dietitian / NG feeding)
- Electrolyte correction (K+, Mg++)
- If incontinence severe, seek advice from IP&C Nurse; the FlexiSeal® Management System may prevent undue skin damage.
- Consider whether proton pump inhibitors (e.g., omeprazole) and H2 receptor antagonists (e.g., ranitidine) can be stopped

Assessment of C.difficile disease severity and treatment

Grade	Clinical findings	Treatment
Mild	• WCC not raised • <5 type 5-7 stools in 24hours	• No antibiotics required • Rehydrate and correct any electrolyte disturbance • Continue to monitor • If symptoms worsen then start: Oral metronidazole 400mg TDS for 10-14 days
Moderate	• WCC raised but < $15x10^9$/L • ≥5 type 5-7 episodes of stool in 24 hours	• Oral metronidazole 400mg TDS for 14 days • Continue to monitor • If failure to respond at 48 – 72 hours, switch to oral vancomycin 125mg QDS for 14 days
Severe	One or more of the following present: • WCC ≥$15x\ 10^9$/L • CRP >150 • Acute rising serum creatinine (>50% rise above baseline) • Temperature >38.5C • Evidence of severe colitis (abdominal or radiological signs)	• Vancomycin 125mg QDS orally for 14days • Rectal vancomycin should also be considered • If no clinical improvement refer for urgent surgical review. • Continue to monitor
Life threatening	• Hypotension • Partial or complete ileus or toxic megacolon • CT evidence of severe disease	• Urgent surgical review for potential colectomy • Vancomycin 500mg QDS orally for 14 days PLUS metronidazole 500mg TDS IV PLUS IV immunoglobulin 400mg/kg as a single dose • Rectal vancomycin should also be considered if ileus present

Treatment for patients unable to take oral medications

Patients who are unable to take medication by mouth or nasogastric route should receive intravenous metronidazole.

Persistent diarrhoea

If the diarrhoea persists despite >14days treatment but the patient is clinically stable and the daily number of type 5-7 motions has decreased, the WCC is normal and there is no abdominal pain or distension, the persistent diarrhoea may be due to post-infective irritable bowel syndrome.

At this stage the clinical team could consider treating the patient with an anti-motility agent, such as loperamide. The patient should be closely observed for evidence of therapeutic response and to ensure there is no evidence of colonic dilatation. The patient should remain in isolation as they may still be excreting C. difficile.

8. Relapse/Recurrence

Recurrence or relapse following an episode of CDI is common and may be due to an infection with the same strain or a different strain of *C.difficile*. A proportion of patients may have multiple recurrences. Recurrence is not thought to occur because of resistance to metronidazole/vancomycin, but because of the disturbance of normal gut flora.

Approximately 20% of patients relapse, due to:

Germination of residual spores

Re-infection

Further antibiotics

Increased risk:

Age

Poor mobility

To diagnose relapse:

Clinical symptoms / condition

Inflammatory markers

Abdominal x-ray

Flexible sigmoidoscopy

Management of recurrent CDI

For the first recurrence, repeat the same antibiotic used to treat the initial episode in the first instance, or manage as appropriate to the severity of the infection at that time.

For subsequent recurrences, a tapering course of vancomycin may be used. Specialist advice from Microbiology and infection control should be sought in these cases.

Vancomycin tapering course – to be used when recommended by a medical microbiologist or infectious diseases physician

Start Vancomycin 250mg QDS

If responds by day 5 then continue 14 days

Then:

125mg QDS for 1 week
125mg TDS for 1 week
125mg BD for 1 week
125mg OD for 1 week
125mg every other day for 2 weeks
125mg every 3rd day for 2 weeks

9. Alternative treatments and Probiotics

Intracolonic vancomycin
Given as a retention enema: vancomycin 500mg in 100-500ml saline 4-12 hourly. This can be administered either via a Flexi-Seal® device, if already in use, or an 18 gauge Foley catheter with 30ml balloon inflated per rectum if a Flexiseal® is not appropriate. Vancomycin should be instilled, the catheter then clamped for 60mins and then deflated and removed. If using Flexi-Seal® device, the volume instilled should be allowed to drain after clamping for 60 minutes [18 gauge Foley catheter will be available in the IPC out of hours supplies from Security WRH site and outside IPC office Alexandra site]

Fidaxomycin
Fidaxomycin is a new class of antibiotic. It is equally effective in treating a first case of CDI as standard oral vancomycin but may have a lower relapse rate. It is an additional drug to consider in patients who are relapsing or who are considered very high risk for relapse initially. It should only be prescribed on the advice of a consultant microbiologist or infectious diseases physician.

Faecal Transplant
This is used as last resort treatment option because of practical and aesthetic concerns. Typically, fresh faeces from a healthy donor is administered in normal saline by enema or slurry via nasogastric tube or colonoscopy. This treatment modality is **NOT** currently available locally, however it is envisaged that when the local faecal transplant service become available (via University Hospital Birmingham), it will be a treatment option for cases of *C.difficile* infection which have proved refractory to standard medical/drug therapy. For such patients faecal transplant will be arranged through Microbiology and Infectious diseases.

Probiotics
There is currently a lack of robust research data to inform which probiotics are most efficacious for treatment or prevention of antibiotic associated diarrhoea and *C.difficile* infection. Their use for prevention of CDI is not currently recommended in national guidance.

10. Isolation and cleaning

Infection Prevention and control measures
(Appendix 4**)**

Patients should be nursed with the following contact precautions while awaiting results or if *Clostridium difficile* is confirmed

- Nurse in a single room where possible, after the first diarrhoeal stool. (Appendix 2 and Appendix 3)
- Isolation should be secured within 4hrs, in line with Trust policy after completion of the Side Room Prioritisation Tool (Appendix 8). Escalate to bed manager and senior nurse for your area and complete a Datix if isolation is not possible. In certain circumstances, cohort nursing may need to be considered. This will be decided by the IP&C Team.
- Attach a door sign for Isolation Precautions (yellow notice) to door
- Use a designated toilet or commode (consider commode bank). If designated toilet, do not allow non-infected patients to use this toilet.
- Ensure the Patient Stool Record Chart (on back of D&V risk assessment) is maintained including recording if bowels not opened. Appendix 2
- Disinfect toilet according to Trust Cleaning Policy, using proprietary bleach based cleaner or other appropriate alternative, as directed therein. If patient uses a commode, clean after each use with detergent wipes and once daily with a sporicidal agent, according to the decontamination Policy. It is essential the commode is dedicated to a single patient. If commode going back into general use, it must be cleaned with a sporicidal agent.
- Wear gloves and plastic aprons when handling bedpans / excreta and dealing with patient. Visitors should also be instructed to wear aprons and gloves if giving direct care.
- Wash hands with **soap and water** then disinfect with alcohol hand rub after removing gloves
- Treat soiled linen as “infected”
- Contact the Housekeeper / Domestic Supervisor as soon as possible to arrange daily Isolation / Barrier Room cleaning

Theatres

Clostridium difficile toxin or PCR positive patients needing surgical intervention should be placed last on the theatre list if symptomatic with diarrhoea or undergoing procedures involving the bowel. Recover the patient in theatre which should then be Red HPV cleaned.

Patients who are a known previous *Clostridium difficile* toxin or PCR positive but are asymptomatic (no diarrhoea) and not on treatment for *Clostridium difficile* do not require the above measures but should be last on the list where possible, to allow for Amber Tristel clean of theatres. No need to recover patient in theatres.

Handwashing

Thorough handwashing by all attending staff after contact with patients and their environment is essential. Soap and water rather than alcohol gel alone must be used for *Clostridium difficile* cases.

Removal from isolation and terminal cleaning

Patients are considered non-infectious once they have passed formed stool (i.e. Bristol Stool Chart type 1-4) for ≥48 hours. Once vacated, the room should receive a Red level clean with HPV treatment. (VRAG poster).
Ensure the patient is moved into a clean bed space do NOT move any furniture from the isolation room.

11. Information for patients and carers

All cases identified during an inpatient stay will be visited by a member of the Infection Prevention and Control Team, who will explain about *C.difficile* and provide them with an advice sheet/patient information leaflet, which also contains the contact details for the Infection Prevention and Control Team. The patient is also issued with a *C.difficile* passport which can be shown by the patient in future contacts with any healthcare providers.

12. Period of increased incidence (PII)

A period of increased incidence (PII) is defined as 2 or more toxin-positive case, that occur ≥48 hours post-admission in the same ward in a 28 day period. Detection of a PII triggers additional IPCT and antimicrobial stewardship auditing and enhanced monitoring on the affected ward area.

13. Outbreak

An outbreak is defined as 2 or more cases on the same ward which can be linked in time and place and are confirmed as have the same ribotype. If this occurs, the Outbreak Policy will be followed and a multidisciplinary incident meeting will be held, chaired by the Director of Infection Prevention and Control (DIPC). Outbreaks of *C.difficile* are reportable as Serious Incidents..

14. Post infection review (PIR)

In order to examine the effectiveness of measures implemented and learn any lessons to improve patient safety, each case of Trust-attributable CDI will be reviewed. (Appendix 6). An initial case review will be undertaken by a Consultant Microbiologist, Senior Infection Control Nurse and Infection Control lead for the CCG for all of these cases to determine if any lapse in care occurred.

Lapse in care

- **Were there any aspects of the patient's care that could have been done differently?**
- **Identification of failures in policy and procedures which directly contributed to the CDI case (i.e. failure to follow Trust Antibiotic policy or poor environmental cleaning)**
- **Failures in policy and procedures which although did not directly contribute to the CDI, had an impact on the patient care delivery (i.e. failure to isolate patient on identification of diarrhoea)**

Categorisation

No Lapses in Care
Lapse in Care did NOT contribute to development of CDI
Lapse in care contributed to development or acquisition of CDI

If, following this review, significant lapses in care (defined by NHS England - NHS 2018) are identified; the following individuals may be required to attend a formal meeting.

- Consultant Microbiologist
- Lead Nurse IPC
- Consultant responsible for patient or their nominated deputy
- Matron for the Directorate
- Senior ward sister/deputy
- Antibiotic pharmacist
- Senior representative for ISS/ Housekeeping
- Infection Control Lead for CCG

The individuals invited with vary on a case-by-case basis, depending upon the nature of the lapse in care identified by the initial review.

In cases categorised as “red lapses” in care after formal review, the key individual(s) will be required to attend a meeting with the Director of Infection Prevention and Control (DIPC) or deputy DIPC and present the case, summarising actions taken and subsequent learning. A summary of “red lapse” cases will be presented in summary at each monthly TIPCC meeting.

15. Audit Mechanism and surveillance

All cases will be notified to clinical areas by phone on the day of the positive laboratory report. The cumulative numbers of cases in all areas are published widely: on the Trust intranet, on the Corporate Systems Trust Performance Nursing Report, and communicated to the management boards of both hospital sites monthly.

For all trust attributable *C.difficile* Toxin positive cases, the Infection Prevention and Control Team will undertake auditing of the ward area concerned. Auditing will review both the environment and practice on the ward. All other cases (including C difficile positive PCR) will be audited by ward staff on a weekly basis.

All deaths where *Clostridium difficile* is mentioned on Death Certificate in 1a, 1b or 1c will be reported as Serious Incidents (SIs). Before citing *C difficile* as a cause of death, the case must be discussed with a senior clinician and the duty microbiology team should be informed. Root cause analysis is co-ordinated in all cases of CDI by the IPCT in conjunction with clinical staff. The process for investigating and declaring a Serious Incident associated with a death to which CDI has contributed is described in Appendix 8.

All cases of CDI will be logged on password protected internal log sheets, and reported to the secure Public Health England HCAI database. Cases where the patient dies will also be

reported to the CCG as Serious Incidents. Responsibility for maintaining the log sheets lies with the Directorate Support Officer, who obtains the data from the laboratory information system and ICNet software.

In addition, if surveillance of *C.difficile* 30 day all-cause mortality indicates a rate approaching 20%, a review is undertaken of a selection of the cases to ensure that management of *C.difficile* in these cases was optimal and the review process was optimal.

16. Training

CDI will be included in induction training for doctors and nurses, and regular updates will be delivered as part of the annual mandatory training programme by the Infection Prevention and Control Team.

17. References

Department of Health: The Health and Social Care Act 2008: Code of practice on the prevention and control of infections, and related guidance (2015) Available at: https://www.gov.uk/government/publications/the-health-and-social-care-act-2008-code-of-practice-on-the-prevention-and-control-of-infections-and-related-guidance [Accessed 02.07.2018]

Department of Health/Health Protection Agency: *Clostridium difficile* infection. How to deal with the problem (2008) Available at: https://www.gov.uk/government/publications/clostridium-difficile-infection-how-to-deal-with-the-problem [Accessed 02.07.2018]

Department of Health: Updated guidance on the diagnosis and reporting of *C.difficile* (2012) https://www.gov.uk/government/publications/updated-guidance-on-the-diagnosis-and-reporting-of-clostridium-difficile [Accessed 02.07.2018]

Public Health England (PHE): Updated guidance on the management and treatment of Clostridium difficile infection (2013) https://www.gov.uk/government/publications/clostridium-difficile-infection-guidance-on-management-and-treatment [Accessed 02.07.2018]

WHO five moments of Hand hygiene http://www.who.int/infection-prevention/campaigns/clean-hands/5moments/en/ [Accessed 02.07.2018]

NHSI - *Clostridium difficile* infection objectives for NHS Organisations in 2018/19, guidance on sanction implementation and notification of changes to case attribution definitions from 2019 (July 2018) https://improvement.nhs.uk/resources/clostridium-difficile-infection-objectives/ [Accessed 02.07.2018]

Worcestershire Acute Hospitals Trust Antimicrobial prescribing policy

Monitoring Tool

This should include realistic goals, timeframes and measurable outcomes.

How will monitoring be carried out? Who will monitor compliance with the guideline?

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)*	Frequency of reporting:
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**
	These are the 'key' parts of the process that we are relying on to manage risk. We may not be able to monitor every part of the process, but we MUST monitor the key elements, otherwise we won't know whether we are keeping patients, visitors and/or staff safe.	What are we going to do to make sure the key parts of the process we have identified are being followed? (Some techniques to consider are; audits, spot-checks, analysis of incident trends, monitoring of attendance at training.)	Be realistic. Set achievable frequencies. Use terms such as '10 times a year' instead of 'monthly'.	Who is responsible for the check? Is it listed in the 'duties' section of the policy? Is it in the job description?	Who will receive the monitoring results? Where this is a committee the committee's specific responsibility for monitoring the process must be described within its terms of reference.	Use terms such as '10 times a year' instead of 'monthly'.
	Post infection reviews of all Trust Attributable *C.difficile* Toxin positive cases	In-depth review of all *C.difficile* toxin positive cases diagnosed 48hours post admission to Acute Trust. This review will consider the following key factors: Antimicrobial use against Trust policy, Timeliness of sampling/diagnosis, environmental cleanliness (review of environmental and ward ICP practice audit data)	As cases are identified	CMM, Lead IPCN/deputy, CCG IPC lead	TIPCC	Monthly
	Identification of Periods of Increased Incidence (PII) and outbreaks	Through review of all *C.difficile* cases at the weekly IPCT meeting and automated flagging of C.difficile cases	Weekly	IPCT	TIPCC	Monthly

		(both toxin positive and PCR positive) on the same ward areas via ICNET				
	Antibiotic stewardship audits (prescribing and review)	Undertaken under the lead of the Trust Antimicrobial pharmacist by ward pharmacists	When PII identified	Trust Antimicrobial pharmacist and CMM	TIPCC	Monthly (as and when PIIs identified

Contribution List

Key individuals involved in developing the document

Name	Designation
Dr Emma Yates	Consultant Microbiologist & Infection Control Doctor, Worcestershire Royal Hospital
Dr Eftihia Yiannakis	Consultant Microbiologist & Infection Control Doctor, Worcestershire Royal Hospital
Heather Gentry	Lead Infection Prevention & Control Nurse
Dr Mark Roberts	Consultant in Infectious Diseases, Worcestershire Royal Hospital
Dr Mirella Ling	Consultant in Infectious Diseases, Worcestershire Royal Hospital

Circulated to the following individuals for comments

Name	Designation
	TIPCC Circulation list

Circulated to the following CDs / Heads of department for comments from their directorates / departments

Name	Directorate / Department
Dr Jasper Trevelyan	Divisional Medical Director Specialist Medicine
Dr Ian Gee	Clinical Director Gastroenterology/Consultant Gastroenterologist, Worcestershire Royal Hospital
Dr Ishfaq Ahmad	Consultant Gastroenterologist, Worcestershire Royal Hospital
Dr Thea Haldane	Consultant Gastroenterologist, Worcestershire Royal Hospital
Dr Nick Hudson	Consultant Gastroenterologist, Worcestershire Royal Hospital
Dr Amul Elagib	Consultant Gastroenterologist, Worcestershire Royal Hospital
Dr Jules Walton	Divisional Medical Director, Urgent Care Division
Mr Paul Rajjayabun	Divisional Medical Director, Surgery Division
Dr Andrew Short	Divisional Medical Director, Women and Children's Division
Dr Julian Berlet	Divisional Medical Director, Specialised Clinical Services Division
Dr Suneil Kapadia Ashton	Medical Director, Worcestershire Royal Hospital
Dr Thekli Gee	Consultant Medical Microbiologist Co-Laboratory Director, Microbiology Laboratory Worcestershire Royal Hospital
Dr Mary Ashcroft	Consultant Medical Microbiologist Co-Laboratory Director, Microbiology Laboratory Worcestershire Royal Hospital
Dr Hugh Morton	Consultant Microbiologist & AMR Lead, Worcestershire Royal Hospital
Stephanie Beasley	Divisional Director of Nursing Specialised Clinical Services Division
Amrat Mahal	Divisional Director of Nursing Women and Children's Division
Margaret Stewart	Supervisor of Midwives, Women and Children's Division
Sarah King	Divisional Director of Nursing Surgery Division
Julie Kite	Divisional Director of Nursing Urgent Care Division

Susan Smith	Divisional Director of Nursing Medicine Division
Astrid Gerrard	Antimicrobial Pharmacist, Worcestershire Royal Hospital
Emma Bridge	Head of Facilities
Iain Johnston	Senior Infection Prevention & Control Nurse

Circulated to the chair of the following committees / groups for comments

Name	Committee / Group
Vicky Morris	Trust Infection Prevention & Control Committee/ Director Infection Prevention and Control

Appendix 1
Patient admission assessment for infection

Appendix 2
Diarrhoea and vomiting assessment tool and stool chart

Appendix 3
C.difficile Quick guide

Appendix 4
C.difficile Care plan

Appendix 5
Cleaning schedules Cleaning responsibility framework document and quick reference guide

Appendix 6
C.difficile Toxin positive case review process
C.difficile Toxin case review process summary chart

Appendix 7
Commode cleaning chart

Appendix 8
Serious Incident associated with a death to which CDI has contributed

Please see current version on Infection prevention and Control page on Trust intranet
http://nww.worcsacute.nhs.uk/departments-a-to-z/infection-prevention-and-control/

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

If you have identified a potential discriminatory impact of this key document, please refer it to Human Resources, together with any suggestions as to the action required to avoid/reduce this impact.

		Yes/No	Comments
1.	**Does the policy/guidance affect one group less or more favourably than another on the basis of:**		
	Race	No	
	Ethnic origins (including gypsies and travellers)	No	
	Nationality	No	
	Gender	No	
	Culture	No	
	Religion or belief	No	
	Sexual orientation including lesbian, gay and bisexual people	No	
	Age	No	
2.	**Is there any evidence that some groups are affected differently?**	No	
3.	**If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?**	N/A	
4.	**Is the impact of the policy/guidance likely to be negative?**	No	
5.	**If so can the impact be avoided?**	N/A	
6.	**What alternatives are there to achieving the policy/guidance without the impact?**	N/A	
7.	**Can we reduce the impact by taking different action?**	N/A	

For advice in respect of answering the above questions, please contact Human Resources.

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	No
2.	Does the implementation of this document require additional revenue	No
3.	Does the implementation of this document require additional manpower	No
4.	Does the implementation of this document release any manpower costs through a change in practice	No
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval