Torbay and South Devon NHS
NHS Foundation Trust

Title: **CLOSTRIDIUM DIFFICILE**

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Classification: Protocol

Directorate: Organisation Wide

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Document Control

Responsible for review: Infection Control Support Team

Ratified by: Infection Prevention and Control Committee
Clinical Director of Pharmacy

Applicability: All Staff

Contents

1. Introduction and Overview

1.1. Most cases of *Clostridium difficile* infection are preventable by correct hand hygiene, correct antibiotic prescribing and correct cleaning.

1.2. *C. difficile* is a bacteria, that can be found in the bowel in about 3% of adults and 70% of babies without causing any diarrhoea.

1.3. *C. difficile* can turn into 'spores', with a tough coat so it can survive, in the areas around a patient, for months and isn't killed by all disinfectants. Sodium hypochlorite (eg ActiChlor or Chlorclean), chlorine dioxide (eg. Tristel) and hydrogen peroxide vapour can kill the spores, provided it is used fresh and at the correct concentration.

1.4. Alcohol hand gels do not work against *C. difficile* spores.

1.5. *C difficile* bacteria are able to produce a toxin, intermittently, which can cause diarrhoea. These strains are called 'toxigenic' and antibiotic treatment can trigger toxin production.

1.6. Approximately 5% of all persons taking antibiotics develop diarrhoea called Antibiotic Associated Diarrhoea and *C difficile* may be involved.

1.7. *C. difficile* infection (CDI) covers the whole spectrum of mild to severe, life-threatening,disease. Other symptoms are fever, loss of appetite, nausea and abdominal pain /tenderness.

1.8. CDI is seen on sigmoidoscopy as, "pseudomembranous colitis". Rarely CDI can cause a picture suggestive of bowel obstruction with severe illness but no diarrhoea.

1.9. Patients most likely to develop CDI are; over 65 years, had CDI in the past, immunosuppressed, long in-patient stays in hospital or long courses of antibiotics.

1.10. Proton pump inhibitors (PPIs) such as omeprazole and lansoprazole can increase the risk of CDI. Review prescription as per trust policy 1600.

1.11. Antibiotic treatment, particularly with 'high risk' antibiotics (ciprofloxacin, levofloxacin, clindamycin, co-amoxiclav and cephalosporins) – '4C's', are the single most important trigger for CDI. There are medium risk antibiotics for CDI which include, 'Tazocin™ and Clarithromycin'. If a patient had had CDI in the past and requires antibiotic therapy, attempt to use low risk CDI-antibiotics such as 'doxycycline, amoxicillin, gentamicin IV and vancomycin IV or teicoplanin IV'. But any antibiotic can cause CDI.

1.12. CDI or suspected CDI must be treated straightaway with metronidazole orally or intravenously, for a first infection, or oral vancomycin if recurrent infection (See Acute trust algorithm on P. 3 or GP algorithm on P. 4). Also antimotility agents (loperamide), opioid pain killers, PPIs and other antibiotics must be reviewed straightaway.

1.13. If a patient has a severe illness (sepsis or peripheral WCC >15, acute rise in serum creatinine to >50% above baseline) and diagnosed as CDI or possible CDI (no stool result available), this is an emergency and an urgent discussion with a consultant gastroenterologist, microbiologist and gastro-surgeon should ensue.

Acute Diarrhoea Quick Reference Guide – Acute trust

Patient has unexplained diarrhoea (BSS = 6/7 that may be due to CDI

Check computer for previous results. Do not resend sample within 28 days of positive result. Send stool sample. But if an **enema, laxatives** or **nasogastric feeds, within the last 2 days,** do not send the stool to the lab but request the doctor prescribe metronidazole 400mg PO tds, then send a stool the following day for *C.difficile* testing & if negative stop metronidazole.

Start infection control precautions including single room isolation within 2 hours and use gloves and aprons with soap and water for hand hygiene. Give a stat dose of metronidazole
Start a stool chart

Stop implicated anitbiotics if possible. D/w microbiology if patient still needs antibiotics.
Stop antimotility drugs e.g. (loperamide, codeine), laxatives, and review PPIs e.g. omeprazole
Give Supportive Measures e.g. adequate fluid and electrolyte replacement

MILD DISEASE

< 3 loose stools in 24 hrs
Afebrile
No abdominal pain
Normal WCC
No tachycardia or hypotension

MODERATE DISEASE

3-5 loose stools in 24 hrs
Fever up to 38.5°C
Raised WCC but <15 X 10^9/L

SEVERE DISEASE

Any number of loose stools
Fever > 38.5°C, Raised WCC >15 X 10^9/L *or*
Severe colitis (include radiological) *or*
Acute rise in serum Cr (>50% rise above baseline) *or* Any ileus

TREATMENT~ 1° Infection

Metronidazole PO 400mg tds (if NBM Metronidazole IV 500mg tds).
For 14 days

TREATMENT~ 1° Infection

Vancomycin PO 125mg qds (if NBM Metronidazole IV 500mg tds)
For 14 days
Check WCC daily until <10 x 10^9/L

TREATMENT~ 1° Infection & Recurrence

Immediate d/w consultant Gastroenterologist or Microbiologist

Vancomycin PO 250-500mg qds AND Metronidazole IV 500mg tds.
For 14 days

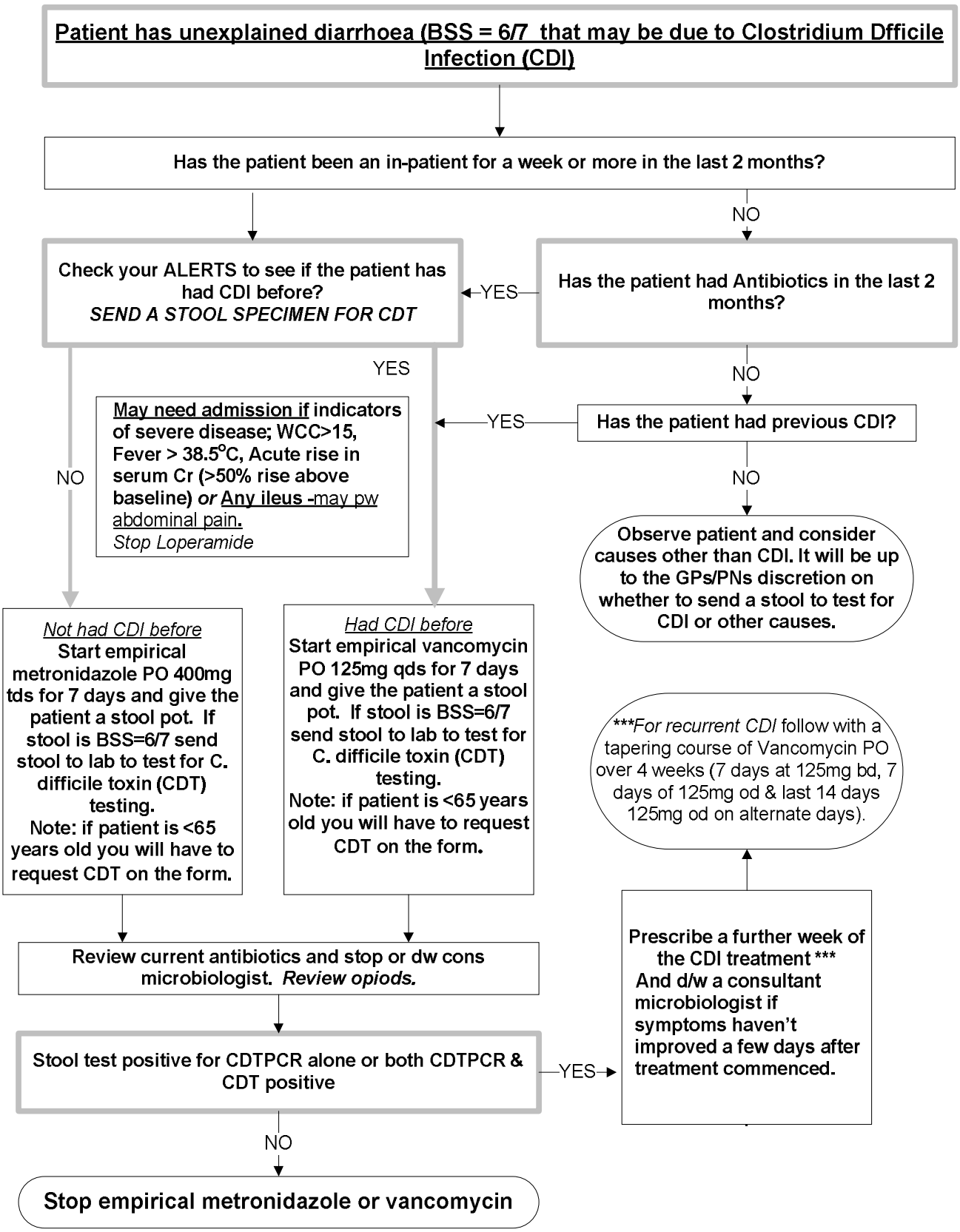
For a recurrence:
Consider tapering dose of Vancomycin PO over 4 weeks (7 days at 125mg bd, 7 days of 125mg od & last 14 days 125 mg alternate days)
Consider immunoglobulin IV (400 mg/kg IV as a stat dose)

PERFORM DAILY REVIEW
If deterioration or hypotension *or*
If Toxic Magacolon (caecal dilatation >10cm *or*
If Complete Ileus *then*
Immediate Consultant Surgical review – may need colectomy
Measure blood/plasma lactate (colectomy best performed before level >5 mmol/L). Start Gentamicin IV 5mg/kg/d & Teicoplanin IV 400mg 12 hrly for 3 doses then 400mg od, if concurrent sepsis.
Consider immunoglobulin IV (400 mg/kg IV as a stat dose)

Continue to treat as *C difficile* whilst awaiting test results.
If positive result follow CDI Checklists- pages 5 & 6.
Review patient daily, if deterioration then escalate treatment as above.
If patients' clinical condition does not improve by 48-72 hours then d/w consultant Gastroenterologist or Microbiologist

TREATMENT~ Recurrence
Vancomycin PO 125mg qds (if NBM Metronidazole IV 500mg tds) for 14 days & then a tapering course of vancomycin PO over 4 weeks.
If a second or more recurrence dw consultant microbiologist / gastroenterologist to consider referral for a Faecal Microbiota Transplant (FMT)
Daily review ~ if deteriorates escalate treatment to 'Severe'

Acute Diarrhoea Quick Reference Guide – GPs or PNs



Clostridium Difficile Initial Checklist

	Initial box	*Task – please date and initial box when completed*
Nursing		**Make sure stool chart started** (should include stool consistency and approx volumes) and a **stat dose of metronidazole PO 400mg is administered.**
		Patient moved to side room within 2 hours.
		Importance of hand washing for visitors explained to 'representative', ie close friend or relative who will be able to pass on this information to others
		***C difficile* information leaflet given to patient (once laboratory result available)**
		Appropriate infection control information sign on side room door
		Twice daily cleaning of side room taking place with Actichlor Plus/ Chloclean or Clorox wipes- all 5,000ppm available chlorine. (Inform Hotel Services to instigate)
		Alcohol hand gel removed from use around patient
		A toilet / commode has been dedicated for this patient's use
		Hand wash facilities are available for the patient (to be used after toileting and before eating / drinking anything)
		Dedicated equipment is available for the patient (eg DynaMap)
		If the patient was incontinent in the bay the IPCT will request HPV for the bay. If they are moved into a side room following onset of diarrhoea this must be cleaned with detergent then HPV at discharge.
		Patient's medical team aware of diagnosis
		Other consultant teams informed of *C difficile* case on the ward
		The relevant matron has been informed of the case (if a hospital-acquired case, they will need to arrange a RCA within 5 days)
Medical		**Diarrhoea severity assessment undertaken and recorded in notes** and a **stat dose of metronidazole PO 400mg is prescribed.**
		Current treatments reviewed (esp antibiotics, constipating agents, PPIs) **and specific *C difficile* treatment started**
		Other patients' antibiotic treatments reviewed by medical staff

Clostridium Difficile Daily Checklist

	Task – please remember to check these items each day
Nursing	**Is the patient receiving their treatment?** (refusal of antibiotics has been an important cause of treatment failure)
	Is the stool chart being completed properly?
	Is dietary intake sufficient? (Dietician referral required?)
	Is patient's anal skin intact? (Would a 'FlexiSeal' be helpful?)
	Are you happy that staff are using appropriate PPE?
	Are you happy that staff and visitors are using hand washing appropriately?
	Are arrangements for 'dedicated' equipment working?
	Is the appropriate infection control information sign still on side room door?
	Is twice daily cleaning of the side room taking place ?
	Is alcohol hand gel still removed from use around patient?
	Is there evidence that the dedicated toilet / commode being cleaned with Cholrox wipes (5,000ppm available chlorine) after each use?
	Is the patient using their hand wash facilities appropriately? (after toileting and before eating / drinking anything)
Medical	**Is the patient's fluid balance acceptable?**
	Is the patient receiving their treatment? (refusal of antibiotics has been an important cause of treatment failure)
	Is the severity of diarrhoea reducing (and being documented in the patient's notes)? **Is the patient's WCC =/> 15 – if so has the patient developed severe CDI?**
	Does treatment need to be escalated – at 48-72 hours there should be no more than 2 episodes of diarrhoea per day and if not refer to consultant gastroenterologist or microbiologist?
	Have you arranged for review over the weekend if required?
If symptoms persist consider moving to a clean sideroom and terminally clean side room.	

1. Scope of policy

This policy will apply to

- all Trust staff, including bank/ agency staff, wherever they are working
- visiting clinical staff and employees of other organisations working on Trust premises
- patients of the Trust and visitors on Trust premises
- volunteers
- GPs, Practice Nurses & Community patients in their own homes
- Contractors and sub-contractors

2. Duties

2.1. Corporate responsibility

2.1.1. The Trust has a responsibility to promote a high level of compliance with best practice.

2.1.2. Deliver induction & annual mandatory training for all staff and involved in direct patient contact.

2.1.3. Ensuring all facilities are provided for patients with suspected or confirmed CDI, e.g. isolation facilities, hand wash basins.

2.1.4. Involving the Infection Prevention & Control Team in the planning process for new construction and refurbishment work so that advice can be given on appropriate isolation facilities, see; Infection Control in the Built Environment" (HBN 00-09 DH 2013), Isolation Facilities for Infectious Patients in the Acute Setting (HBN 04-01 Suppl 1 DH 2013).

2.2. Directorate Manager, Clinical Director and Lead Nurse responsibilities

2.2.1. Each Service Delivery Unit (SDU) has a responsibility to ensure all staff comply with this Policy.

2.2.2. Ensure that all staff complete infection control induction and annual mandatory training.

2.2.3. Provide facilities and equipment for isolation of patient with suspected or confirmed CDI.

2.2.4. Ensure that CDI surveillance and any root cause analysis action plans are discussed at Directorate Governance Group meetings as part of the infection control standing agenda item.

2.3. Infection Prevention and Control Team (IPCT) responsibilities

2.3.1. Ensure that CDI results are communicated to the clinical staff promptly.

2.3.2. Enter alerts on the patient notes and the Patient Administration System for patients diagnosed with infection.

2.3.3. Provide advice on appropriate placement of patients with suspected or confirmed CDI.

2.3.4. Produce timely feedback on surveillance of CDI for wards/units, directorates and Trust.

2.3.5. Produce reports to the Quality Improvement Group (QIG) and for the Trust Board on CDI.

2.3.6. Ensure that all patients over the age of two with *C. difficile* toxin positive stools are reported on the DH mandatory enhanced surveillance system(MESS).

2.3.7. Monitor the use of antimicrobial agents within the Trust and feedback on areas for improvement (antibiotic lead and antimicrobial pharmacist).

2.3.8. The IPCT ensure that all CDI results are communicated to GPs and Care Homes, provide advice on appropriate placement of patients.

2.4. Microbiology staff and consultant microbiologist responsibilities

2.4.1. Ensure that testing for CDI is available 7 days per week and results are automatically emailed to IPCTs.

2.4.2. Ensure that *C. difficile* laboratory results and advice on treatment of CDI are communicated promptly to clinical teams and GPs.

2.4.3. Consultant microbiologists to review severe CDI daily until patient improvement or if unable to review to request that Gastroenterologist of the Day performs the daily review of severe CDI until the patient improves.

2.5. Matron and other nursing staff responsibilities

2.5.1. Ensure that patients with suspected infective diarrhoea are identified and isolated within 2 hours and then reported to IPCT.

2.5.2. If a patient had antibiotics within 6 weeks, ensure a stat dose of oral metronidazole 400mg is administered immediately. If the patient is nil by mouth then administer a stat dose of intravenous metronidazole 500mg.

2.5.3. Obtain faecal sample for *C.difficile* testing promptly and send to microbiology laboratory. But if the patient has received an enema, laxatives or started nasogastric feeds, within 2 days, DO not send the stool to the lab but request the doctor prescribe metronidazole 400mg PO tds. Then, if diarrhoea persists, send a stool the following day for *C.difficile* testing.

2.5.4. Record bowel movements using the criteria listed in the Bristol Stool Chart (see Appendix 1).

2.5.5. Complete the nursing section of the initial and daily *C difficile* checklist (pages 5 & 6).

2.5.6. Initiate twice daily cleaning of sideroom using Actichlor or Chlorclean 5000ppm.

2.5.7. Ensure that visitors are advised of any necessary infection control precautions required of them when visiting a patient with suspected or confirmed CDI.

2.5.8. Administer prescribed treatment for CDI.

2.5.9. Ensure that bed spaces/rooms vacated and associated equipment used by patients with CDI are cleaned and then decontamination using hydrogen peroxide vapour (HPV).

2.6. Consultant and other medical staff responsibilities

2.6.1. Use antimicrobial agents according to trust guidelines. (See Bugbuster3000)

2.6.2. Commence treatment of patients with confirmed or suspected CDI in accordance with this policy or microbiologists' or gastroenterologists' advice. And if bowels opened more than 3 times a day 72 hours after treatment commenced or if severe CDI.

2.7 Trust Operation's responsibilities

2.7.1 Assist ward staff to identify single room accommodation for patients with suspected CDI.

2.8 Facilities Management responsibility

2.8.1 Clean the sideroom and toilet twice a day with Actichlor or Chlorclean 5000ppm to reduce level of environmental contamination with *C.difficile* spores.

2.8.2 Provide terminal cleaning of vacated bed spaces/isolation rooms on discharge/transfer of patients with suspected or confirmed CDI with HPV via the Deep Cleaning Team or Actichlor or Chlorclean 5000ppm.

2.9 Individual responsibility

2.9.1 All staff have a personal and corporate obligation to comply with best practice in the prevention of infection and comply with this and all other infection control related policies.

3. Training

3.1. All staff working within the Trust must receive both Induction and Mandatory Infection, Prevention & Control training.

4. Prevention and control of C difficile

4.1. Most cases of CDI are preventable by correct hand hygiene, correct antibiotic prescribing and correct cleaning.

4.2. Alcohol hand gel is **NOT** active against *C difficile* spores. Hand washing, with soap and water, is the method of hand hygiene around those with or suspected of having CDI.

4.3. Patients should be provided with facilities for hand washing or single-use antiseptic hand wipes after toileting and should also be able to wash their hands or have single-use hand wipes before eating or drinking and be made aware of the benefit of using the facilities

4.4. Environmental cleaning (including of equipment) should use disinfectants effective against spores (eg Acticlor or Chlorclean 5,000ppm or Chlorox wipes).

4.5. If there is more than one patient on a ward with or suspected of having CDI then Enhanced Cleaning should be in place (high frequency touch areas and toilets cleaned every 2 hours from 06:30 to 20:30).

4.6. Environmental surfaces should be in good repair such that they are capable of being cleaned effectively.

4.7. Patients with diarrhoea (and / or vomiting) should be recognised quickly and isolated appropriately in order to minimise environmental contamination. This includes an assessment upon admission (*eg* the 'green form' in A&E [appendix 2] or ED's Symphony or on the ward for direct admissions) as well as recognition of new symptoms once on the ward. Appropriate *ad hoc* cleaning of contaminated areas should be undertaken promptly.

4.8. **Good antibiotic prescribing is crucial and should comply with local guidelines** (see Ref 1098 Antimicrobial Prescribing Policy, Ref 0040 "Adult empirical antimicrobial guidelines" and Ref 1118 "Paediatric empirical antimicrobial guidelines"). If a patient has had CDI in the past and requires antibiotic therapy, attempt to use low risk CDI- antibiotics such as 'doxycycline, amoxicillin, gentamicin IV and vancomycin IV or teicoplanin IV'. But any antibiotic can cause *C. difficile* or worsen existing CDI. If unsure discuss with a consultant microbiologist.

4.9. It is important to suspect CDI in a patient with diarrhoea and a history of antibiotics in the last 6 weeks. Treatment for CDI or suspected CDI to be started straightaway with a stat dose of metronidazole PO 400mg, or if nil by mouth metronidazole IV 500mg. Continue the course of metronidazole and review it with the stool result. If it discovered that the patient has had previous CDI then start oral vancomycin 125mg qds and review the course with the stool result.

5. Diagnosis

5.1. To diagnose CDI send a stool for laboratory testing, there are other methods, such as sigmoidoscopy.

5.2. Although infection is most common in the elderly, it is possible in younger age groups. For in-patients with diarrhoea *C. difficile* testing is performed on all stools > 2 years of age.

For out-patients aged >65 years *C. difficile* testing is performed on all stools.
For out-patients aged >2 years and <65 years, *C. difficile* testing should be requested if any of the following criteria are satisfied:

- ¾ Patient is /or has been on antibiotics within the last 3 months
- ¾ When a negative result for routine MC&S has already been received and symptoms persist.
- ¾ The patient has developed diarrhoea whilst there was an existing case of *C. difficile* on the ward.

5.3. Testing involves a screening test for *C. difficile* toxin B gene, using a Polymerase Chain Reaction (PCR) and if positive then a second test is performed for *C. difficile* free toxin.
See the flow chart below which outlines the process of testing and the interpretation of results;

6. Management of patients with *C. difficile*

6.1. For the First diagnosis of CDI prescribe metronidazole PO 400mg or if nil by mouth metronidazole IV 500mg tds and administer immediately, for a duration of 14 days. If the patient has had previous CDI then start oral vancomycin 125mg qds for 14days and afterwards taper the course with oral vancomycin 125mg bd 7 days, oral vancomycin 125mg od 7 days and finally oral vancomycin 125mg od on alternate days for 14 days.

6.2. Vancomycin should NOT be given intravenously, for CDI, as it does not get into the colon. If metronidazole suspension is required give on an empty stomach or if being given via an NG tube, in the middle of a 2 hour fast. Do NOT give the suspension by NJ tube as the drug will not be activated by gastric enzyme

6.3. Severe CDI (sepsis or peripheral WCC >15 or acute rise in serum creatinine to >50% above baseline or blood/plasma lactate level > 4mmol/L) should be treated with oral vancomycin 500mg qds and metronidazole IV 500mg tds, immediate referral to a consultant gastroenterologist or consultant microbiologist and a colorectal surgeon must be made. Consider immunoglobulin IV 400mg/Kg. See algorithm on p3. THESE PATIENTS REQUIRE DAILY REVIEW BY A CONSULTANT.

6.4. Further recurrences of CDI discuss with a consultant microbiologist or consultant gastroenterologist as fidaxomicin and or further high dose courses of oral vancomycin and *Saccharomyces boulardii* or Faecal Microbiota Transplant (FMT) can be considered.

6.5. The IPCT must be informed immediately of any patient(s) who develops diarrhoea of unknown origin.

6.6. The relevant matron should be informed of the diagnosis so that a Root Cause Analysis can be initiated.

6.7. Patients with proven or suspected *C difficile* infection should be managed as follows;

6.7.1. **Isolation**: Within 2 hours in a single room, ideally with a hand wash basin and toilet. If an en-suite toilet is not available, a commode must be used and be designated for the sole use of that patient. An isolation notice must be placed on the outer door of the single room.

6.7.2. **Medical equipment**: Patients must use designated equipment, which must be cleaned and disinfected on discharge. If unable to designate for the sole use of the patient, then equipment must be cleaned and disinfected (using Chlorox wipes 5,0000ppm available chlorine) prior to removal. Always ensure that the manufactures instructions are followed.

6.7.3. **Room cleaning**: Rooms must be cleaned twice daily, paying special attention to dust-collecting areas and horizontal surfaces. Patients can reinfect themselves so regular cleaning is highly recommended. It must be cleaned with 5,000 ppm hypochlorite (ActiChlor or Chlorclean or Chlorox wipes) after each use

6.7.4. **Protective clothing**: Always use plastic apron and gloves for direct patient contact or contact with the immediate environment and when handling body excretions/secretions. Remove gloves then the apron without touching the front, discard into an orange waste bag and WASH HANDS with soap & water.

6.7.5. **Disposal of faeces/urine**: Use a side room toilet if possible, otherwise use a designated commode.

6.7.6. **Disposal of clinical waste**: Orange clinical waste bags

6.7.7. **Linen**: Use a water-soluble red bag then put into the laundry's red bag.

6.7.8. **Cutlery/crockery**: Normal ward issue – machine dish wash on ward or in central kitchen.

6.7.9. **Visitors**: Visitors with only social contact need not wear protective clothing but should wash their hands on leaving the room. Alcohol based hand rubs are ineffective against *C. difficile* spores. Those who assist with the patient's direct care or have more extensive patient contact should wear protective clothing.

6.7.10. **Duration of isolation**: Isolation may be discontinued when the patient has been symptom free for at least 48 hours as the main infection source is via faeces. There is no requirement to submit further stool samples for toxin detection (unless the patient has a clinical relapse post treatment) as toxin may be present in the gut for up to a month after the patient has become asymptomatic.

6.7.11. **End of Life Care** during this phase of a patients care the stool chart will continue and treatment with metronidazole PO or IV or vancomycin PO will continue to ensure the patient remains comfortable.

7. **Terminal cleaning of the side room after patient discharge**: Clean all surfaces with a 5,000 ppm hypochlorite solution (ActiChlor, Chlorclean), then rinse and dry. Curtains must be changed. Radiator covers must be removed and radiators cleaned.
HPV decontamination will be used by the Deep Cleaning Team, where possible, and the initial clean prior to Hydrogen Peroxide Vapour can be with detergent.

8. Transfer or discharge

8.1. If transfer of a patient with CDI is confirmed or suspected, the receiving area must be informed prior to transfer. The IPCT should be informed of the transfer as soon as possible.

8.2. When a patient has been positive but symptoms have resolved, the receiving area should be informed. This will ensure that the diagnosis of *C.difficile* is considered if the patient has any further diarrhoea.

8.3. Staff must ensure that the diagnosis of CDI is noted on the information sent to the patient's General Practitioner, and the patient should be advised to report to their GP if they experience further diarrhoea.

9. Death certification

9.1. If a patient with CDI dies, the completion of the death certificate must involve the consultant in charge of the patient and a consultant microbiologist. If *C. difficile* is put in Part 1 of the death certificate then a rapid review of the notes must be made and if necessary involve the Medical Director and Director of Nursing.

10. Surveillance

10.1. The IPCT will undertake continuous surveillance of CDI and will email the Chief Nurse each time a new *C. difficile* Toxin EIA result arises.

10.2. Patients positive for CDT Toxin B PCR only will also have their casenotes reviewed by the IPCT and a decision on an RCA will be made by the IPCT.

10.3. The Lead ICN & DIPC will review the casenotes of new *C. difficile* Toxin EIA results diagnosed by GPs AND have been an in-patient at TSDFT within 30 days. Any actions will be emailed to relevant consultant staff and managers.

10.4. Trust wide surveillance data will be reported to the Infection Prevention and Control Committee, Quality Improvement Group (QIG) and Trust Board.

10.5. Any possible Clusters of CDI (2 or more confirmed cases within 28 days in a 30 bedded unit) will be investigated by the DIPC calling a *C. difficile* Increased Incidence Meeting with a multi-disciplinary Clinical review Team (microbiologist, ICN, consultant gastroenterologist or colorectal surgeon, pharmacist, operations and dietician) to investigate and manage the increased incidence. This may lead to an outbreak meeting (see Outbreak Policy Ref 0761).

11. Monitoring of the policy

11.1. Monthly audit for compliance with policy using HII No 6, ie. compliance with hand hygiene and antibiotic prescribing compliance will be performed by the IPCT. The Matrons will audit mattresses (check intact) and commodes (cleanliness).

11.2. Completion of stool chart, initial check list and daily checklists will be done at the RCA.

11.3. Breaches of this policy must be reported as clinical incidents and as a 'Lapse in Care', to the IP&C Committee Meeting, QIG and the SDTCCG.

Appendix 1

THE BRISTOL STOOL FORM SCALE

Appendix 2

The 'Green Form
Linked to: https://icon.torbayandsouthdevon.nhs.uk/areas/infection-control/Pages/Resources.aspx
Go to IPC Resources and select 2015 DV Risk Assessment v3

Appendix 3

Linked to Patient Information Leaflet – 22083 The facts about C. difficile diarrhoea

Appendix 4

Linked to Patient information leaflet - 25353 Clostridium Difficile /PCR +VE Diarrhoea or C Difficile Infection (CDI) also Referred to as 'C-Diff' - Community Leaflet

Appendix 5

GP letter for *C difficile* positive patients

Torbay and South Devon NHS
NHS Foundation Trust

PLEASE PRINT OUT FILL IN NAME AND GIVE TO PATIENT'S GP or DUTY Dr.

Management Protocol for Recurrent *Clostridium difficile* Infection
from TSDFT Consultant Microbiologists, Consultant Gastroenterologists and SDTCCG
(February 2016 V2)

Dear **Dr**

Your patient:
NHS number:
DOB:

Has *Clostridium difficile* associated disease (CDAD). Please consider the advice below when this patient requires any antibiotic or has diarrhoea.

Clostridium difficile bacteria are carried in the gut of between 3 % of the population. If the bacteria produces toxin then it leads to diarrhoea and *C. difficile* associated disease (CDAD). The *C. difficile* bacteria form spores and can survive for long periods in the home, for example, on carpets and unwashed hands. Always advise hand hygiene with soap and water after using the toilet.

Mild or moderate CDAD can be treated with 14 days of metronidazole and a review of any current antibiotics that the patient may be taking (can d/w consultant microbiologist 01803 654990). The patient should be reviewed about 2-3 days later to ensure symptoms have improved, if not switch to oral vancomycin 125mg qds for 14 days and stop the metronidazole.

Proton – Pump – Inhibitor (PPI) prescription should also be reviewed to check that it is necessary. These should be stopped slowly to prevent rebound gastric symptoms.

Anti-motility agents must be avoided.

Severe CDAD may present with absolute constipation after some initial diarrhoea (also any one of; WCC >15 10^9/L, >50% rise in creatinine above the baseline, temperature >38.5^{o}C, abdominal pain, ileus) and these patients should be **admitted to hospital**.

Recurrent CDAD occurs in about 20% of patients after they have been treated with a course of metronidazole or vancomycin orally *(this is where you will find that flagging these patients with a CDAD Alert on your computer systems – useful)*. A variable proportion of recurrences are re-infections (20-50%) as opposed to relapses due to the same strain.

Management of First Recurrent CDAD

1. Prescribe oral vancomycin 125mg qds for 14 days then follow this with a tapering course of vancomycin 125mg bd for 7 days, 125mg od for 7 days, 125mg od on alternate days for 14 days and all of the rest of the advice above also applies.

2. When patients present with diarrhoea and have recently completed a course of antibiotics, start CDAD treatment empirically, straightaway whilst the stool result is awaited.

3. The patient should be reviewed about 2-3 days later to ensure symptoms have improved, if not switch to oral vancomycin 500mg qds for 14 days and then follow tapering course as above.

4. If the patient still has loose stools, consider a course of fidaxomicin PO 200mg bd for 10 days. Fidaxomicin is available from Alliance healthcare and generally can ordered in for the same

day or next day. It is a licensed medication so Community Pharmacies would be able to obtain it in the same way that Torbay hospital pharmacy do.

5. If after the course of fidaxomicin as above the patient still has loose stools then refer to the consultant gastroenterologist for exclusion of other bowel pathology and consideration of a faecal microbiota transplant (FMT).

6. Advice on regularly cleaning the toilet, sink and taps & toilet door handles with Milton's solution can be given. The Community Infection Control Nurse will also give advice to patients (01803 210547) on hand hygiene and cleaning.

More than one recurrence of CDAD After a first recurrence, the risk of another CDAD infection increases to 45-60%. So follow points 4-6 above.

Prescribing any antibiotic in a patient with a history of CDAD

- Ø As you know the 4 Cs must be avoided (Clindamycin, Ciprofloxacin, Cephalosporins & Co-amoxiclav) this also includes levofloxacin.
- Ø For patients with COPD consider using a combination of amoxicillin and doxycycline instead.
- Ø For patients requiring prolonged courses of flucloxacillin consider using a combination of rifampicin and doxycycline instead (check LFTs if used for more than a week).
- Ø For further advice d/w consultant microbiologist 01803 654990.
- Ø Always warn the patient about the risks of diarrhoea and recurrence of their CDAD and ask them to contact the practice for advice.
- Ø Suggest a Probiotic drink such as Actimel or Yakult, that could be taken for the duration of the antibiotic course, it may not prevent CDAD but it can reduce associated diarrhoea.

Yours sincerely

Consultant Microbiologist **Consultant Microbiologist**

Consultant Microbiologist **Consultant Gastroenterologist**

References: Updated guidance on the management and treatment of *Clostridium difficile* infection. PHE 2013. PHE gateway number: 2013043.

Protocols & Guidelines – Document Control

This is a controlled document. It should not be altered in any way without the express permission of the author or their representative. On receipt of a new version, please destroy all previous versions.

Ref: 0914	Title: Clostridium Difficile		
Date of Issue:	3 February 2017	Next Review Date:	3 February 2020
Version:	14		
Author:	Infection Control Support Team		
Index:	Infection Control		
Classification:	Protocol		
Applicability:	All staff		
Equality Impact:	The guidance contained in this document is intended to be inclusive for all patients within the clinical group specified, regardless of age, disability, gender, gender identity, sexual orientation, race and ethnicity & religion or belief.		
Evidence based:	Yes		
References:	DH/HPA (2008) *Clostridium Difficile* infection: How to deal with the problem. WHO (2009) WHO Guidelines on Hand Hygiene in Healthcare. Available at: http://whqlibdoc.who.int/publications/2009/9789241597906_eng.pdf The Health and Social Care Act 2008 – Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance. Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) UPDATED GUIDANCE ON THE DIAGNOSIS AND REPORTING OF CLOSTRIDIUM DIFFICILE. March 2012 http://www.hd.gov.uk/prod_consum_dh/groups?dh_digitalassets/@dh/@en/documents/digitalasset/dh_133016.pdf Updated Guidance on the management of *C. difficile* infection. PHE June 2013 Revised http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317138914904		
Produced following audit:	No		
Audited:	No		
Approval Route:	See ratification	Date Approved:	25 January 2017
Approved By:	Infection Prevention and Control Committee		
	Clinical Director of Pharmacy		
Links or overlaps with other policies: 0040 – Adult Empirical Antimicrobial Guidelines; 1098 – Antimicrobial Prescribing Policy; 1118 - Paediatric empirical antimicrobial guidelines 0761 – Outbreak Control Plan; 1600 Proton Pump Inhibitor prescribing in adults			
All TSDFT Trust strategies, policies and procedure documents.			

PUBLICATION HISTORY:

Issue	Date	Status	Authorised
1	17 August 2006	New	Medical Director, Director of Nursing & Quality, Medicines Governance Group
2	17 August 2006		
3	3 January 2008	Revised	Medical Director, Medicines Governance Group

4	24 July 2008	Revised	Medical Director, Chief Pharmacist
5	18 December 2008	Revised	Director of Nursing & Quality, Director of Infection Prevention and Control, Clinical Director of Pharmacy
6	10 June 2010	Revised	Director of Infection Prevention and Control, Director of Nursing and Governance. Clinical Director of Pharmacy
7	19 August 2010	Revised	Director of Infection Prevention and Control Director of Nursing and Governance. Clinical Director of Pharmacy
8	7 April 2011	Revised	Director of Infection Prevention and Control, Director of Nursing and Governance
9	12 January 2012	Revised	Director of Infection Prevention and Control, Director of Nursing and Governance
10	10 January 2013	Revised	Director of Infection Prevention and Control Director of Nursing and Governance Director of Infection Prevention and Control (DIPC) Torbay and South Devon Clinical Director of Pharmacy
11	27 March 2014	Revised	Director of Infection Prevention and Control (DIPC) Director of Professional Practice, Nursing and Peoples Experience Director of Infection Prevention and Control (DIPC) Torbay and South Devon Clinical Director of Pharmacy
12	13 February 2015	Revised	Director of Infection Prevention and Control (DIPC) Director of Professional Practice, Nursing and People's Experience Director of Infection Prevention and Control (DIPC) Torbay and South Devon (Community) Clinical Director of Pharmacy
13	11 February 2016	Revised	Director of Infection Prevention and Control (DIPC) Chief Nurse Director of Infection Prevention and Control (DIPC) Torbay and South Devon (Community) Clinical Director of Pharmacy
14	3 February 2017	Revised	Infection Prevention and Control Committee Clinical Director of Pharmacy
14	19 February 2018	Review Date Extended - 2 Years to 3 Years	

The Mental Capacity Act 2005

The Mental Capacity Act provides a statutory framework for people who lack capacity to make decisions for themselves, or who have capacity and want to make preparations for a time when they lack capacity in the future. It sets out who can take decisions, in which situations, and how they should go about this. It covers a wide range of decision making from health and welfare decisions to finance and property decisions

Enshrined in the Mental Capacity Act is the principle that people must be assumed to have capacity unless it is established that they do not. This is an important aspect of law that all health and social care practitioners must implement when proposing to undertake any act in connection with care and treatment that requires consent. In circumstances where there is an element of doubt about a person's ability to make a decision due to 'an impairment of or disturbance in the functioning of the mind or brain' the practitioner must implement the Mental Capacity Act.

The legal framework provided by the Mental Capacity Act 2005 is supported by a Code of Practice, which provides guidance and information about how the Act works in practice. The Code of Practice has statutory force which means that health and social care practitioners have a legal duty to have regard to it when working with or caring for adults who may lack capacity to make decisions for themselves.

"The Act is intended to assist and support people who may lack capacity and to discourage anyone who is involved in caring for someone who lacks capacity from being overly restrictive or controlling. It aims to balance an individual's right to make decisions for themselves with their right to be protected from harm if they lack the capacity to make decisions to protect themselves". (3)

All Trust workers can access the Code of Practice, Mental Capacity Act 2005 Policy, Mental Capacity Act 2005 Practice Guidance, information booklets and all assessment, checklists and Independent Mental Capacity Advocate referral forms on iCare

http://icare/Operations/mental_capacity_act/Pages/default.aspx

Infection Control

All staff will have access to Infection Control Policies and comply with the standards within them in the work place. All staff will attend Infection Control Training annually as part of their mandatory training programme.

Quality Impact Assessment (QIA)

	Please select			
Who may be affected by this document?	Patient / Service Users	☒	Visitors / Relatives	☐
	General Public	☐	Voluntary / Community Groups	☐
	Trade Unions	☐	GPs	☐
	NHS Organisations	☐	Police	☐
	Councils	☐	Carers	☐
	Staff	☒	Other Statutory Agencies	☐
	Others *(please state):*			

Does this document require a service redesign, or substantial amendments to an existing process?	☐
If you answer yes to this question, please complete a full Quality Impact Assessment.	

Are there concerns that the document could adversely impact on people and aspects of the Trust under one of the nine strands of diversity?	Age	☐	Disability	☐
	Gender re-assignment	☐	Marriage and Civil Partnership	☐
	Pregnancy and maternity	☐	Race, including nationality and ethnicity	☐
	Religion or Belief	☐	Sex	☐
	Sexual orientation	☐		
If you answer yes to any of these strands, please complete a full Quality Impact Assessment.				
If applicable, what action has been taken to mitigate any concerns?				

Who have you consulted with in the creation of this document? *Note - It may not be sufficient to just speak to other health & social care professionals.*	Patients / Service Users	☐	Visitors / Relatives	☐
	General Public	☐	Voluntary / Community Groups	☐
	Trade Unions	☐	GPs	☒
	NHS Organisations	☐	Police	☐
	Councils	☐	Carers	☐
	Staff	☒	Other Statutory Agencies	☒
	Details *(please state):*	PHE		

NHS South Devon and Torbay Clinical Commissioning Group Torbay and South Devon NHS NHS Foundation Trust

Rapid Equality Impact Assessment *(for use when writing policies and procedures)*

Policy Title (and number)	***C difficile 0914***	**Version and Date**	*18/1/17*
Policy Author	Director of Infection Prevention and Control		

An equality impact assessment (EIA) is a process designed to ensure that a policy, project or scheme does not discriminate or disadvantage people. EIAs also improve and promote equality. Consider the nature and extent of the impact, not the number of people affected.

EQUALITY ANALYSIS: How well do people from protected groups fare in relation to the general population?
PLEASE NOTE: Any 'Yes' answers may trigger a full EIA and must be referred to the equality leads below

Is it likely that the policy/procedure could treat people from protected groups less favorably than the general population? (see below)

Age	Yes ☐ No☒	Disability	Yes ☐ No☒	Sexual Orientation	Yes ☐ No☒
Race	Yes ☐ No☒	Gender	Yes ☐ No☐	Religion/Belief (non)	Yes ☐ No☒
Gender Reassignment	Yes ☐ No☒	Pregnancy/ Maternity	Yes ☐ No☒	Marriage/ Civil Partnership	Yes ☐ No☒

Is it likely that the policy/procedure could affect particular 'Inclusion Health' groups less favorably than the general population? (substance misuse; teenage mums; carers[1]; travellers[2]; homeless[3]; convictions; social isolation[4]; refugees)	Yes ☐ No☒

Please provide details for each protected group where you have indicated 'Yes'.

VISION AND VALUES: Policies must aim to remove unintentional barriers and promote inclusion

Is inclusive language[5] used throughout?	Yes ☒ No☐
Are the services outlined in the policy/procedure fully accessible[6]?	Yes ☒ No☐
Does the policy/procedure encourage individualised and person-centred care?	Yes ☒ No☐
Could there be an adverse impact on an individual's independence or autonomy[7]?	Yes ☐ No☒

If 'Yes', how will you mitigate this risk to ensure fair and equal access?

EXTERNAL FACTORS

Is the policy/procedure a result of national legislation which cannot be modified in any way?	Yes ☐ No☒

What is the reason for writing this policy? (Is it a result in a change of legislation/ national research?)

IP&C

Who was consulted when drafting this policy/procedure? What were the recommendations/suggestions?

PHE

ACTION PLAN: Please list all actions identified to address any impacts

Action	Person responsible	Completion date

AUTHORISATION:
By signing below, I confirm that the named person responsible above is aware of the actions assigned to them

Name of person completing the form	Director of Infection Prevention and Control	**Signature**	
Validated by (line manager)	Chief Nurse	**Signature**	