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Lincolnshire Partnership NHS Foundation Trust (LPFT)

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This policy deals with the management of patients with *Clostridium difficile* infection in accordance with National Guidelines.

LINCOLNSHIRE PARTNERSHIP FOUNDATION TRUST

MANAGEMENT OF *CLOSTRIDIUM DIFFICILE* INFECTION (CDI)

ISSUE 2

CONTENTS

MANAGEMENT OF *CLOSTRIDIUM DIFFICILE* INFECTION (CDI) POLICY AND PROCEDURE

1.0 INTRODUCTION

1.1 *Clostridium difficile* (*C Difficile*) was first described in the 1930s although it was not identified until the late 1970s as the cause of diarrhoea and colitis following antibiotic therapy. Since January 2004, *C Difficile* has been part of the mandatory surveillance programme for healthcare associated infections. Since the late 1990s it has become notorious for being the most important cause of hospital acquired diarrhoea in adults and a significant cause of patient death. It is a particularly distressing infection for patients and their carers and can cause a spectrum of illness from asymptomatic colonisation of the bowel to trivial diarrhoea to life-threatening illness as the result of pseudomembranous colitis and toxic megacolon, electrolyte imbalance, perforation of the bowel, sepsis and ultimately death. It is also very difficult to manage in the kinds of environments common in mental health providers, due to the need for isolation and the treatment options available.

1.2 Various studies show that 2-5 % of healthy adults and up to 36% of hospitalised patients harbour *C Difficile* in their faecal flora. *C Difficile* infection occurs when the normal bacteria/flora of the bowel is altered allowing it to flourish and produce toxins. The primary cause of *C. Difficile* infection is antibiotic exposure but it can be transmitted patient to patient via environmental contamination with the spores it forms and transmission often by healthcare workers hands. Gastro-intestinal surgery can increase a person's risk of developing the disease. A long length of stay in healthcare settings and immune-suppression leads to an increase in patients who are carriers.

1.3 All age groups can be affected; however, the elderly are most at risk. Over 80% of cases are reported in the over 65 age group. Children under the age of 2 years are not usually affected by the infection although they often carry the bacteria within their gut.

1.4 *C. Difficile* is considered to be an avoidable infection, the incidence of which has been demonstrably reduced through the application of stringent, standard IPC precautions and prudent antimicrobial prescribing.

2.0 POLICY/PROCEDURE PRINCIPLES

2.1 This policy deals with the management of patients with *C Difficile* Infection (CDI) in accordance with National Guidelines.

2.2 To prevent the spread and reduce the level of *C Difficile* infection within Lincolnshire Partnership Foundation Trust (LPFT)

3.0 RESPONSIBILITIES

Responsibilities are as set out in the overarching IPC policy 7a.

4.0 DEFINITIONS

4.1 ***Clostridium Difficile*** is an anaerobic, gram-positive spore forming rod shaped bacteria (bacillus). The spores are dispersed into the environment when an infected person has

diarrhoea. They are resistant to exposure to air, drying, and heat and can survive in the general environment for long periods of time.

4.2 **Diarrhoea** is defined as stool loose enough to take the shape of a container used to sample it or as Bristol Stool Chart types 5–7 (see Appendix 1)

4.3 ***Clostridium Difficile* Infection**.(CDI)

One episode of diarrhoea, defined as Bristol Stool Chart type 5–7 that is not attributable to any other cause, including medicines
and that occurs at the same time as a positive toxin assay (with or without a positive *C. Difficile* culture)
and/or endoscopic evidence of pseudo membranous colitis constitutes a diagnosis of *Clostridium Difficile* Infection (CDI).

5.0 TRANSMISSION

5.1 Studies show that 2-3% of healthy adults and up to 36% of hospitalised patients harbour *C difficile* in their faecal flora. Routes of transmission are:

- Direct spread from patient to patient
- From healthcare staff to patient (predominantly hands) by faecal oral route.(Ingestion of spores from contaminated hands)
- From the environment to the patient (including medical devices)

5.2 A person is infectious while they have diarrhoea. Diarrhoea associated with *C. Difficile* is generally explosive, watery and foul smelling, often accompanied by abdominal pain. The nature of the diarrhoea particularly in patients who have difficulty managing their continence leads to further spread and risk of transmission.

6.0 RISK FACTORS.

6.1 The main risk factors for C. Difficile Infection are:

- Advanced age
- Antibiotic treatment within 3 months (especially broad spectrum antibiotics)
- The use of multiple antimicrobial agents
- Underlying morbidity such as abdominal surgery, cancer, chronic renal disease and tube feeding
- Current use of a proton pump inhibitor or other acid-suppressive drugs
- Hospitalisation
- Exposure to cases
- Inflammatory bowel disease
- Previous CDI

6.2 Indicators of potential severe disease and poor outcomes:

- Elderly, frail patient
- Poor or absent oral intake
- Abdominal pain or distension

- Diarrhoea may not be present
- Unexplained high white blood cell count
- Temperature of 38.5°C or above.

7.0 DIAGNOSIS & TESTING

7.1 All patients with Diarrhoea should be isolated immediately if possible until an infectious cause can be ruled out. (see Trust Policy 7f Isolation). The following guidance must be followed

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 Nurse Specialist
G	Gloves and aprons must be used for all contacts with the patient and their environment
H	Hand washing with soap and water only should be carried out before and after each contact with the patient and the patient's environment. Alcohol hand rubs have not been proven to be effective against bacterial spores or other enteric causes.
T	Test the stool for toxin and other infectious cause by sending a specimen for analysis immediately

7.2 In all cases only Bristol Stool type 5-7 samples will be tested.

7.3 From 2012, a 2 stage test has been implemented for *C. Difficile.* The 2 stage test detects the presence of **glutamate dehydrogenase (GDH), (**an antigen produced in high amounts by both toxin and non-toxin producing strains of the bacteria) and ***C. Difficile*** **toxin (CDT). Test results should be interpreted as follows:**

Test Result	**Action**
GDH positive and CDT positive *Clostridium Difficile* likely to be present	Isolate the patient (see Isolation Policy) Treat for CDI (appendix)
GDH positive and CDT negative *Clostridium Difficile* is present but not producing toxin	Isolate the patient if they are having diarrhoea Discuss with microbiologist/IPC Nurse Specialist Treatment may be required depending on risk factors
GDH negative and CDT negative *Clostridium Difficile* Infection very unlikely to be present	Isolate the patient if they are having diarrhoea Exclude other infectious cause of diarrhoea

7.4 Check with IPC Nurse Specialist and Microbiology for specific testing, diagnosis, treatment and management requirements

8.0 PATIENT MANAGEMENT

8.1 Not all patients who test positive for CDI will require antimicrobial treatment. Asymptomatic patients need not be treated, nor those with resolving and very mild symptoms.

8.2 Supportive care should be given, including attention to hydration, electrolytes and nutrition

8.3 Advice should be sought from the Consultant Microbiologist by telephone for advice regarding treatment.

8.4 All antibiotics that are clearly not required should be stopped

8.5 All other drugs that may cause diarrhoea should also be discontinued.

8.6 The use of anti-motility drugs and acid suppressing medications such as Proton Pump Inhibitors should be avoided

8.7 The management of a patient with CDI should be reviewed daily, preferably by a multidisciplinary team, to ensure that patients, who typically have multiple co-morbidities, receive optimised care.

8.8 The severity of CDI should be clinically reviewed and assessed daily as follows:

Mild CDI	Not associated with a raised White Cell Count (WCC)
	Typically associated with <3 stools of types 5–7 on the Bristol Stool Chart per day.
Moderate CDI	Associated with a raised WCC <15-109/L
	Typically associated with 3–5 of types 5–7 stools per day
Severe CDI	Associated with a WCC >15-109/L
	or an acute rising serum creatinine (i.e. >50% increase above baseline)
	or a temperature of >38.5°C
	or evidence of severe colitis (abdominal or radiological signs).
Life-threatening CDI	Hypotension
	Partial or complete ileus
	or toxic mega colon
	or computerised tomography (CT) evidence of severe disease

8.9 The daily assessment should be documented in the medical notes.

8.10 If the severity is moderate or above transfer to acute hospital will be necessary.

8.11 Diagnosis of C. Difficile will not necessarily mean the patient cannot be discharged if they are deemed to no longer need a Mental health admission. It will depend on how severe

the symptoms, what support the patient has at home or whether they can manage the symptoms adequately independently. Many people are managed at home with C. Difficile

9.0 NURSING MANAGEMENT

9.1 Standard IPC precautions must be implemented immediately any potentially infectious diarrhoea is suspected.

9.2 Isolation as per policy must be maintained as far as possible until the patient has been asymptomatic for 48 hours.

9.3 If it is difficult to isolate a particular patient due to their mental state, this decision must be clearly documented in the patient record and consultation with the IPC Nurse Specialist must occur at the earliest opportunity to discuss measures to minimise the risk of transmission of infection.

9.4 A Bristol Stool chart must be commenced, maintained and monitored (see Outbreak Pack for Diarrhoea and Vomiting).

9.5 A fluid balance chart must be maintained to monitor hydration levels

9.6 The patient must have their own designated toilet or commode. This must be cleaned after each use as described in the isolation cleaning reference pack

9.7 PPE must be used for all contact with the patient and their immediate environment to minimise the risk of cross infection as per policy.

9.8 Soap and water only must be used for all episodes of hand decontamination. Alcohol gel must not be used as an alternative to soap and water as it has no effect on the C difficile spores.

9.9 Bed linen must be changed daily

9.10 All Laundry from the patient should be treated as infectious as per local guidelines.

9.11 Toilets and commodes must be cleaned after each use using approved chlorine releasing disinfectant or appropriate wipes as per the Isolation Cleaning Reference pack

9.12 Thorough environmental cleaning should take place daily, using approved chlorine releasing disinfectant.

9.13 The environment must be decluttered and equipment in the room kept to a minimum

9.14 If patients require investigations in other departments, the clinician in charge must be informed in advance. If investigations are essential a diagnosis of CDI should not be a reason to refuse to comply. The patient should be last on the list and deep cleaning must commence after patients departure. Liaison between the IPC Nurse Specialist and the IPC teams in the receiving Trust should take place to ensure best practice and the interests of the patient are paramount

9.15 Symptomatic Patients should only be discharged or transferred to another healthcare

facility e.g. acute hospital, if their clinical condition necessitates the transfer. Prior to transfer staff must communicate with the receiving ward/dept. and complete an inter/intra hospital transfer form Appendix

9.16 The Service Manager, IPC Nurse Specialist, Estates and Facilities Advisor and Housekeeping Supervisor must be informed at the earliest opportunity

10.0 OUTBREAK

10.1 An outbreak exists when two or more cases are linked in time and/or place /or person e.g. when there are “more cases than expected in a given area or among a specific group of people, over a particular period of time”

10.2 On suspicion of CDI outbreak follow local directions as per outbreak policy and contact the IPC Team for further advice and support

11.0 ENVIRONMENTAL CLEANING.

11.1 The patient area will need to be fully **deep cleaned** once patient is symptom free for 72 hours and passed a formed stool.

11.2 All soft furnishings should be cleaned following the isolation using local procedures and on advice of the Hotel Services Advisor

11.2 All surfaces should be cleaned with a Chlorine releasing or sporicidal agent or equivalent as advised in the Isolation Cleaning Reference pack.

12.0 POST INFECTION REVIEW.

A Root Cause Analysis will be conducted for all episodes of CDI led by the IPC Nurse Specialist with input from the all appropriate stakeholders.

13.0 TARGET AUDIENCE.

All Trust staff involved in clinical activities

14.0 TRAINING

14.1. The IPC Nurse Specialist can offer additional training on request which will include information contained in his policy.

14.2. All members of staff have an individual responsibility to ensure that they access IPC mandatory training.

15.0 CHAMPION AND EXPERT WRITER.

15.1 The Champion for this policy is the Director of Nursing and Quality
15.2 The Expert Writer is the Infection Prevention and Control Nurse Specialist

16.0 CONSULTATION.

Consultation for version 1 occurred through:

- Infection Prevention and Control Committee
- Nursing Executive members
- Public Health England

Additional Consultation for the revised version:

- Head of Physical Healthcare, IPC, Medical Devices and Smoking Cessation.
- Acting Service Manager Older Adults Division.
- IPC link practitioners
- Matrons
- Physical Healthcare Practitioners

17.0 LEGISLATION, GUIDANCE AND REFERENCES.

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- Nottinghamshire Healthcare IPC Policy 18.13. Management of Clostridium Difficile Infection (CDI)
- Hoffman P, Bradley C and Aycliffe G (2004). *Disinfection in Healthcare*, 3rd edition, Blackwell Publishing, Oxford.
- McCulloch J (2000) Infection Control: Science, management and practice. Whurr Publishers, London.
- National Patient Safety Agency (2006). Safer Practice Notice 15: Colour coding hospital cleaning materials and equipment. NPSA, London.
- NHS Estates (2004). The NHS Healthcare Cleaning Manual, Department of Health, London.
- NHS Estates (2005). HBN4 Supplement 1: Isolation facilities in acute settings, Department of Health, London.
- Rees J, Davies H and Birchall C (2000). Psychological effects of source isolation nursing 2): patient satisfaction. Nursing Standard 14:29, 32-36.
- Wilson J (2006). *Infection Control in Clinical Practice*. 3rd edition, Bailliere Tindall, London.
- Public Health England Updated guidance on the management and treatment of Clostridium difficile infection. (May 2013)

18.0 MONITORING COMPLIANCE

18.1 In the event of isolation being necessary, the IPCNS will monitor compliance actively during ward visits to support ward staff.

18.2. Any Post Infection Review should include evidence of adherence to this policy

18.3 Compliance with this policy will also be monitored through the IPC Audit Programme

19.0 ASSOCIATED TRUST POLICIES

7a. Infection Prevention and Control
7b. Hand Hygiene
7c.Outbreak of Infection
7n.Correct Use of Personal Protective Equipment in the Healthcare Environment
Waste Management

20.0 REVIEW DATE

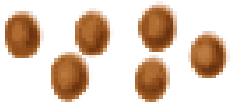
This policy/procedure will be reviewed in 3 years or in light of organisational or legislative changes.

21.0 Record of changes

Date	Author	Policy/Procedure	Details of change(s).
July 2017	J. Lord	7 e	Extensive changes throughout to reflect guidance updates make algorithms clearer, reflect hierarchies of need, clarify isolation approaches, additional appendices to add care plan, patient leaflet. Equality analysis updated

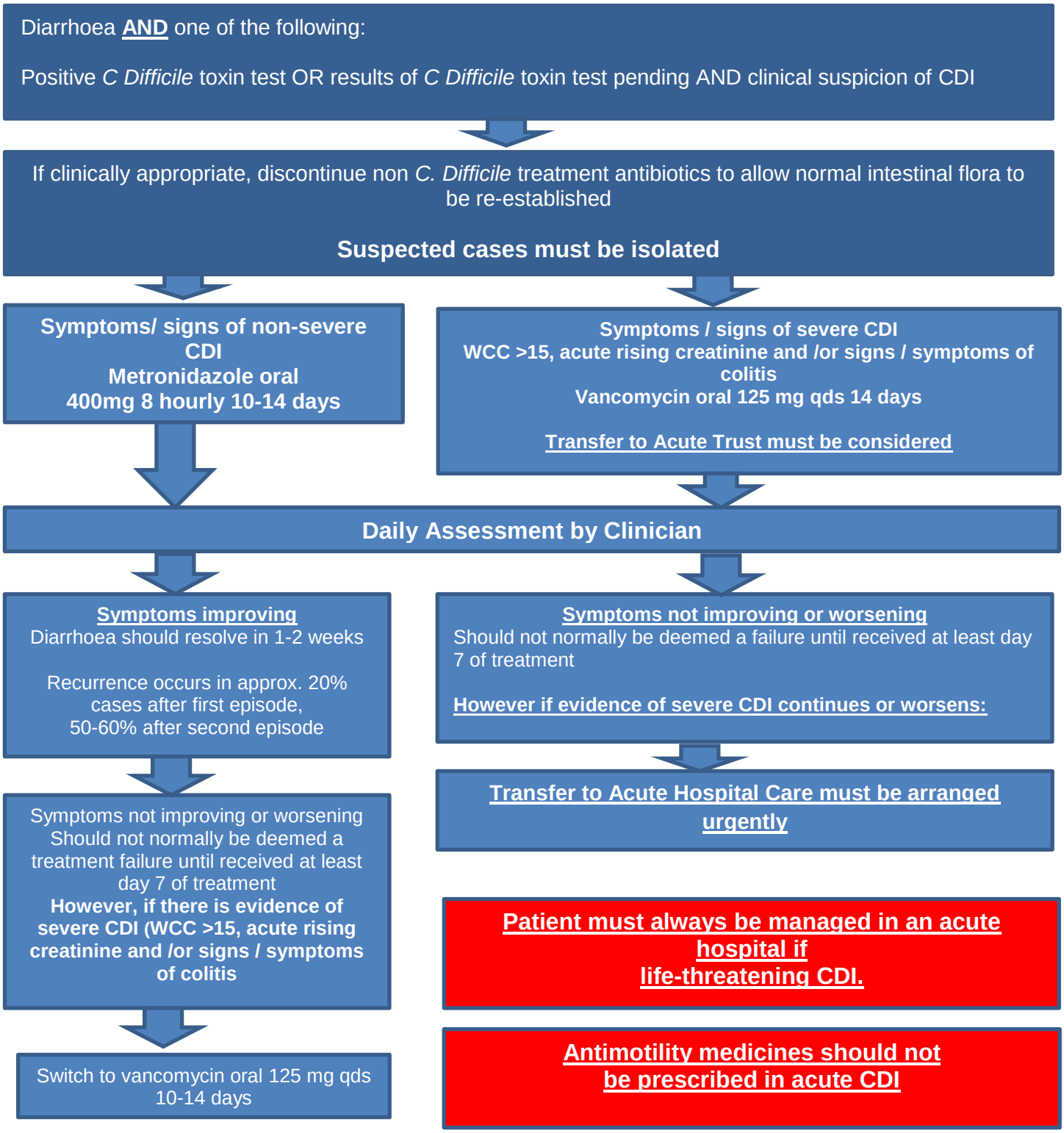
Appendix 1

Bristol Stool Chart

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on the surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces. **Entirely Liquid**

Appendix 2 **TREATMENT ALGORITHM 1**

First or second episode of *C Difficile* Infection



Appendix 3 TREATMENT ALGORITHM 2

Recurrent *Clostridium difficile* infection (CDI)
Recurrent CDI occurs in ~15-30% of patients treated with metronidazole or vancomycin

Recurrence of diarrhoea (at least 3 consecutive type 5-7 stools) within ~30 days of previous CDI episode **AND** positive *C. Difficile* toxin test

Must discontinue non-C. Difficile antibiotics if at all possible to allow normal intestinal flora to be re-established.

Review all drugs with Gastro-intestinal activity or side effects (stop PPIs unless required acutely)

Suspected cases MUST be isolated

Symptoms/signs: not life-threatening CDI
Oral fidaxomicin 200 mg 12-hourly for 10-14 days
(efficacy of fidaxomicin in patients with multiple recurrences is unclear)
Depending on local cost-effectiveness decision making,
Oral vancomycin 125 mg 6-hourly 10-14 days is an alternative

Daily assessment (include review of severity markers, fluid/ electrolytes)

Symptoms improving: Diarrhoea should resolve in 1-2 weeks

If Multiple recurrences, especially if evidence of malnutrition, wasting, etc

- **Review ALL antibiotic and other drug therapy (consider stopping PPIs and/or other GI active drugs)**
- **Consider supervised trial of anti-motility agents alone (no abdominal symptoms or signs of severe CDI)**

Also consider on discussion with microbiology:

- **Fidaxomicin (if not received previously) 200 mg 12-hourly for 10-14 days**
- **Vancomycin tapering/pulse therapy (4-6 week regimen)** (Am J Gastroenterol 2002;97:1769-75)
- **IV immunoglobulin, especially if worsening albumin status** (*J Antimicrob Chemother 2004:53:882-4*)
- **Donor stool transplant** (*Clin Infect Dis 2011;53:994-1002.Van Nood et al., NEJM 2013*)
- **Strong consideration should be given to transfer of patient to local Acute care facilities**

All life-threatening *C. difficile* disease should be managed in an acute hospital.
This is characterized by hypotension, partial or complete ileus or toxic mega colon.

Appendix 4

Infection Prevention and Control Care Plan for a patient with ***Clostridium Difficile*** Infection(2017)

Patient Demographic/Label

IPC Care Plan for a Patient with *Clostridium Difficile*:

Statement: This Care Plan should be used with adult patients who are suspected of or known to have *Clostridium Difficile* Infection. Using this Care Plan will help to reduce the risk of passing *Clostridium Difficile* to other patients, staff, carers and visitors. If it is not possible to follow this Care Plan, you should notify the IPC Nurse Specialist who will help you to carry out a Risk Assessment on how best to care for this patient.

Date	No	Issue/Problem	Action To Be Taken	Ongoing Assessment/ Review Date	Signature	Action From Assessment Review	Action Discontinued Date/Signature
	1	**Accommodation**	• Isolate the patient immediately in a single room with en suite facilities. If en suite facilities are unavailable, ensure access to own commode. • If a commode is used, solidifying sachets should be used to help to contain body fluids and reduce the risk of spillage. • If there is no sluice, infectious body fluids, once solidified can be disposed of down the toilet or placed in infectious waste bags and disposed of in the infectious waste stream. • A Risk Assessment should be carried				

Date	No	Issue/Problem	Action To Be Taken	Ongoing Assessment/ Review Date	Signature	Action From Assessment Review	Action Discontinued Date/Signature
			out by the Clinical Team to determine whether the patient is suitable for isolation. If unsuitable, a daily review should be carried out and documented in the patient's case notes. • Place an isolation sign outside the door. • The door **MUST** be kept closed. If this is not possible, document the reason why in the patient's case notes. • Isolation precautions may be discontinued once the patient has been symptom free for **48 HOURS** and has passed a formed stool. • No food items are to be stored in the isolation room • Minimal items are to be stored in the isolation room				
	2	**Hand Hygiene**	**ALCOHOL GEL IS <u>NOT</u> EFFECTIVE AGAINST *CLOSTRIDIUM DIFFICILE*** • Hand hygiene **MUST** only be performed with water and liquid soap after contact with the patient, their equipment or their environment on				

Date	No	Issue/Problem	Action To Be Taken	Ongoing Assessment/ Review Date	Signature	Action From Assessment Review	Action Discontinued Date/Signature
			leaving the isolation room. • Use single-use disposable gloves to prevent hand contamination. • Using water and liquid soap, decontaminate hands after you have removed your gloves. • Ensure hand washing facilities are offered to the patient after using the toilet, prior to eating etc.				
	3	**Personal Protective Equipment (PPE)**	• Single-use disposable gloves and aprons **MUST** be worn for all direct contact with the patient or the patient's environment or equipment. • Disposable gloves and aprons **MUST** be disposed of into the infectious waste stream after use and hands should be decontaminated with water and liquid soap.				

Date	No	Issue/Problem	Action To Be Taken	Ongoing Assessment/ Review Date	Signature	Action From Assessment Review	Action Discontinued Date/Signature
	4	**Decontamination of Patient Equipment**	• Where possible, equipment such as chairs, hoist sling etc. must be kept for the use of the infected patient **ONLY** and stored in their room. • If equipment is taken out of the patient's room, it **MUST** be cleaned every time with 1000ppm chlorine based detergent (10000ppm if contaminated with bodily fluids). • Crockery, cutlery and medicine pots can be removed from the room and washed in the normal way preferably in a dish washer • Keep items and equipment to a minimum in the isolated room.				
	5	**Specimens**	• The patient is managed according to their symptoms. • Clearance samples are **NOT** required for *Clostridium Difficile*.				
	6	**Laundry**	• Place used linen in a water soluble bag prior to washing. • Clean linen should be taken into the patient's room only when required. • **DO NOT** store clean linen in the isolation room.				
	7	**Waste**	• Dispose of all waste into an infectious waste bag inside the isolation room.				

Date	No	Issue/Problem	Action To Be Taken	Ongoing Assessment/ Review Date	Signature	Action From Assessment Review	Action Discontinued Date/Signature
			A foot operated bin should be used. • When the waste bag is $^{3}/_{4}$ full, fasten securely and use ward identified cable ties if available. • Bin should be emptied **DAILY** or more frequently if necessary.				
	8	**Environmental Cleaning**	• To maintain confidentiality, advise domestic staff that the patient is being isolated. • See Personal Protective Equipment for guidance prior to cleaning. • Floor, sinks, surfaces and toilet etc. **MUST** be cleaned twice daily by domestic staff using chlorine based detergents. • Nursing staff are responsible for the cleaning of patient equipment twice daily using chlorine based detergents. • When the room is vacated, Nursing staff should clean patient related equipment with chlorine based detergents. Domestic staff should then carry out a thorough terminal clean of the room using the guidance of the Isolation cleaning pack. • When the room is dry, it is safe to				

Date	No	Issue/Problem	Action To Be Taken	Ongoing Assessment/ Review Date	Signature	Action From Assessment Review	Action Discontinued Date/Signature
			use.				
	9	**Information to Patient and Carers**	• Ensure the patient and relatives are given information on *Clostridium Difficile* and given the opportunity to discuss this. This should be documented in clinical notes. • Visitors with infectious symptoms such as diarrhoea **MUST** be instructed **NOT** to visit until they have been symptom free for 48 hours. • Ensure that all people visiting are aware of the reasons behind isolation.				
	10	**Visitor Restrictions**	• Visitors **MUST** be instructed to report to the Nurse in Charge **BEFORE** entering the isolated room. • Vulnerable people such as young children and older adults should be discouraged from visiting. • Aprons and gloves are **NOT** required to be worn by visitors but they should be instructed to wash their hands using water and liquid soap on leaving the isolated room. • Nursing staff should consider restricting the number of visitors to two at any one time.				

Date	No	Issue/Problem	Action To Be Taken	Ongoing Assessment/ Review Date	Signature	Action From Assessment Review	Action Discontinued Date/Signature
	11	**Personal Patient Clothing**	• There are **NO** special washing instructions. • Personal laundry contaminated with bodily fluids or blood should be placed in a patient clothing alginate bag before given to the carer or relative for home laundering.				
	12	**Transfer to Another Department or Hospital**	• Patients with *Clostridium Difficile* who **HAVE NOT** been symptom free for 48 hours and **HAVE NOT** passed a formed stool **MUST NOT** be moved to another ward or department without prior consultation with the IPC Nurse Specialist unless in an emergency. • The Inter/intra agency transfer form must be completed when the decision to transfer has been made at any stage of the patient's care including after they have fully recovered from their infectious illness				
	13	**Psychological Impact of Being Isolated**	Patients in isolation may be prone to feelings of loneliness and depression as well as feeling there is a stigma attached to them. These feelings can be lessened by: • Ensuring the patient understands why they are being isolated.				

Date	No	Issue/Problem	Action To Be Taken	Ongoing Assessment/ Review Date	Signature	Action From Assessment Review	Action Discontinued Date/Signature
			• Encouraging the patient to express their concerns. • Providing verbal or written information about the reason and providing a leaflet if available. • Ensuring the patient has items to relieve boredom such as newspapers and television.				
	14	**Documentation**	• Start a stool chart and ensure **ALL** bowel motions are recorded following the Bristol Stool Chart. • Frequency must also be recorded • While symptomatic, a severity score **MUST** be documented by Medical staff in the clinical notes daily.				
	15	**Toileting Facilities**	• Where possible, the patient should be allocated their own toilet or commode. • Once the commode has been used, it must be cleaned after **EACH USE** with chlorine based detergent of 10000ppm. • After the commode has been cleaned, indicator tape **MUST** be placed across the seat so that it has to be removed before use. Any commode without indicator tape				

Date	No	Issue/Problem	Action To Be Taken	Ongoing Assessment/ Review Date	Signature	Action From Assessment Review	Action Discontinued Date/Signature
			across the seat must be assumed to have been used and cleaned immediately. • When handling bedpans and vomit bowls, single-use gloves and aprons **MUST** be used and hands should be decontaminated with water and liquid soap on the removal of gloves and apron.				

Appendix 5

Clostridium Difficile Patient Information.

Clostridium difficile, also known as C. difficile or C. diff, is a bacterium that can infect the bowel and cause diarrhoea.

The infection most commonly affects people who have recently been treated with antibiotics, but can spread easily to others.

C. difficile infections are unpleasant and can sometimes cause serious bowel problems, but they can usually be treated with another course of antibiotics.

Symptoms of a C. difficile infection

Symptoms of a C. difficile infection usually develop when you're taking antibiotics, or when you've finished taking them within the last few weeks. The most common symptoms are:

- watery diarrhoea, which can be bloody
- painful tummy cramps
- feeling sick
- signs of dehydration, such as a dry mouth, headaches and peeing less often than normal
- a high temperature (fever) of above 38C (100.4F)
- loss of appetite and weight loss

In some cases, serious complications can develop, such as damage to the bowel or severe dehydration, which may cause drowsiness, confusion, a rapid heart rate and fainting.

How you get C. difficile.

C. difficile bacteria are found in the digestive system of about 1 in every 30 healthy adults. The bacteria often live harmlessly because the other bacteria normally found in the bowel keep it under control.

However, some antibiotics can interfere with the balance of bacteria in the bowel, which can cause the C. difficile bacteria to multiply and produce toxins that make the person ill.

When this happens, C. difficile can spread easily to other people because the bacteria are passed out of the body in the person's diarrhoea.

Once out of the body, the bacteria turn into resistant cells called spores. These can survive for long periods on hands, surfaces (such as toilets), objects and clothing unless they're thoroughly cleaned, and can infect someone else if they get into their mouth.

Someone with a C. difficile infection is generally considered to be infectious until at least 48 hours after their symptoms have cleared up.

Who's most at risk of C. difficile?

C. difficile mostly affects people who:

- have been treated with broad-spectrum antibiotics (antibiotics that work against several types of bacteria) or several different antibiotics at the same time, or those taking long-term antibiotics
- have had to stay in a healthcare setting, such as a hospital or care home, for a long time
- are over 65 years old
- have certain underlying conditions, including inflammatory bowel disease (IBD), cancer or kidney disease
- have a weakened immune system, which can be because of a condition such as diabetes or a side effect of a treatment such as chemotherapy or steroid medication
- are taking a medication called a proton pump inhibitor (PPI) to reduce the amount of stomach acid they produce
- have had surgery on their digestive system

Many C. difficile infections used to occur in places where many people take antibiotics and are in close contact with each other, such as hospitals and care homes.

However, strict infection control measures have helped to reduce this risk, and an increasing number of C. difficile infections now occur outside these settings.

Treatment for C. difficile

If you have any of the above symptoms, you will be asked to provide a sample in order to ensure that the correct diagnosis is given as soon as possible.

You might be moved to a room of your own during treatment to reduce the risk of the infection spreading to others.

Treatment for C. difficile can include:

- stopping the antibiotics thought to be causing the infection, if possible – in mild cases, this may be the only treatment that's needed
- taking a 10 to 14-day course of antibiotics that are known to kill C. difficile bacteria
- if you become very unwell, you may need to be transferred to hospital for treatment

C. difficile infections usually respond well to treatment, with most people making a full recovery in a week or two. However, the symptoms come back in around 1 in 5 cases and treatment may need to be repeated.

Other treatment will involve:

The following measures can help relieve your symptoms and prevent the infection spreading:

- The nursing staff will make sure you finish the entire course of any antibiotics you're prescribed, even if you're feeling better

- They will encourage you to drink plenty of fluids to avoid dehydration and eat plain foods such as soup, rice, pasta and bread if you feel hungry
- You may be given paracetamol for tummy pain or a fever
- You will not be given anti-diarrhoeal medication, as this can stop the infection being cleared from your body
- They will encourage you to regularly wash your hands.

How to stop C. difficile spreading

C. difficile infections can be passed on very easily. You will be encouraged to prevent spreading it by cooperating with isolation precautions and practicing good hygiene. The following measures can help:

- You will be asked to remain in your room while you are feeling poorly or to move outside of it as little as possible
- This will include having your meals in your room.
- You will be allocated a particular toilet and bathroom/shower to use or will have a commode in your room especially for you to use.
- Wash your hands regularly with soap and water, particularly after going to the toilet and before eating with the liquid soap supplied by the Trust and not using flannels or nail brushes
- The housekeeping staff will regularly clean contaminated surfaces – such as the toilet, flush handle, light switches and door handles – with a bleach-based cleaner
- Nursing staff will clean items such as commodes or any other patient equipment
- Staff will wear gloves and aprons when they come into your room to prevent their clothes being contaminated with the bug and stopping them from passing it on to others
- Don't share towels and flannels with other patients
- Your contaminated clothes and sheets will be washed separately from other washing at the highest possible temperature in a red see through plastic bag
- Your family and friends may be asked not to visit while you are feeling unwell or being treated to avoid spreading the bug to them or others outside of the hospital

Will this mean I can’t go home?

Having C. Diff will not necessarily mean you can’t go home. It will depend on how severe your symptoms and what support you have at home or whether you can take care of yourself. Many people are managed at home with C. Diff

Do I need to tell anyone I have/have had Clostridium Difficile??

We will tell your GP or community nurse, but it is a good idea to remind them the next time you visit the practice. You should always tell anyone caring for you that you have, or have previously had, Clostridium Difficile. In particular, let them know:
• when you are admitted to hospital
• before you are admitted to a nursing or residential home
• before an outpatient appointment or a visit to your GP

If you have any further questions please ask the staff to contact the Infection Prevention and Control Nurse Specialist who can visit you to discuss things further.

Appendix 6 Infection Prevention and Control Discharge/ Transfer Form

This form must be completed in conjunction with other discharge/ transfer documentation and kept with any multi-disciplinary notes

Patient/Client details: (insert label if available) **Name:** **Address:** **Date of birth:** **NHS number:**	**Consultant:** **Contact no:** **GP:** **Contact no:**	
Transferring facility: *(hospital, ward, care home, other)* **Contact name:** **Contact no:**	**Receiving facility:** *(hospital, ward, care home, district nurse [if applicable], GP)* **Contact name:** **Contact no:**	
Symptoms: **Diagnosis:** *(confirmed organism)*	Infection Yes ☐ No ☐	Colonisation Yes ☐ No ☐

Microbiological identification (specimen results):

Specimen & Results	Specimen type	Date	Result
Screen/diagnostic			
Confirmatory			
Other			
Further screening required?			

Treatment information (if appropriate): *(including type of medication, dose and duration)*

Infection prevention & control precautions required / in place:
Does the patient require isolation? Yes ☐ No ☐

Other information relevant to patient's care:

Has the IPC Nurse Specialist been informed?	Yes ☐	No☐	If No, give reason
Has ambulance service been informed?	Yes ☐	No☐	If No, give reason
Is the patient/client aware of their colonisation/infection status?	Yes ☐	No☐	If No, give reason
Has patient received information about their status? (patient leaflet)	Yes ☐	No☐	If No, give reason
Has the nearest relative/ carer received information about their status? (patient leaflet)	Yes ☐	No☐	If No, give reason

Name of staff member completing form:

Print name		**Contact number**	

Appendix 7 Equality Analysis Form

Name of Policy/ project/ service	**Infection Prevention and Control** **Management of *Clostridium difficile* Infection (CDI)**		
Aims of policy/ project/ service	**This policy deals with the management of patients with *Clostridium difficile* infection in accordance with National Guidelines.**		
Is this new or existing?	Existing		
Person(s) responsible	Jane Lord		
Key people involved	Jane Lord		
Who does it affect?	Service users □√	Staff □√	Wider Community □√

Is the policy/ project/ service likely to have an effect on any of the protected characteristic groups? (please tick)

	Positive	Negative	None	Is action possible to mitigate any negative impact?	Details of action planned (including dates or why action is not possible)
Age	√				
Disability	√				
Sex	√				
Gender Reassignment	√				
Sexual Orientation	√				
Race	√				
Religion and Belief	√				
Marriage and	√				

Civil Partnership					
Pregnancy and Maternity	√				
Carers	√				

Any other information that is relevant to the equality impact of the policy/ project/ service?

Detail any positive outcomes for any of the protected groups listed above

The policy will ensure best practice to prevent transmission of infectious disease

Result of Equality Analysis

Based on the information above- what is the outcome of the Equality analysis?

a) No change √ □	b) Adjust the activity □	c) Stop/remove the activity □
Detail any adjustments that are to be made and how these will be monitored		

Person who carried out this assessment	Jane Lord
Date assessment completed	19/07/2017
Name of responsible Director/General Manager	Anne-Maria Olphert
Date assessment was signed	
Date of next review	19/07/2020