

## Say No to Infection Clostridioides *difficile* Fact Sheet



### What is Clostridioides *difficile*?

Clostridioides *difficile* also known as *C. diff* is a type of spore forming bacteria that can be found in people's digestive system. It can be found in healthy people with around 1/3 adults and 2/3rds of babies without causing any harm. However, some antibiotics can interfere with the natural balance of the gut that protect against *C. diff*. As a result, *C. diff* bacteria multiply and produce toxins that irritate the lining of the gut causing symptoms and Clostridioides *difficile* infection (CDI).

### What are the symptoms of Clostridioides *difficile*?

The symptoms of a *C. diff* infection can range from being quite mild to severe and may include:

- Diarrhoea, sometimes excessive, with a distinctive and offensive odour, green in colour and can be mucus like
- Patients may have a high temperature (fever) or above 38C (100.4F)
- Loss of appetite and generally feel unwell
- Dehydration which can be severe due to fluid loss
- Abdomen pain which leads to their abdomen being tender to touch
- *C. diff* infection can also lead to life-threatening complications which include a condition known as toxic mega colon where the bowel swells like a balloon and can perforate due to a build-up of gas

### How does Clostridioides *difficile* spread?

Spores of the *C. diff* bacteria can be passed out of the human body in faeces (stools) and can survive for many weeks, months, on objects and surfaces within the environment particularly, toilets and equipment such as commodes, bedpans, hoists, and mattresses.

If a resident (already vulnerable due to the use of antibiotics) touches a contaminated object or surface and then touches their nose or mouth it is possible to ingest the bacteria.

Equally healthcare workers can carry these spores on unwashed hands or dirty/contaminated Personal Protective Equipment (PPE).

## Risk factors for *Clostridioides difficile*

The risk factors associated with acquiring *C. diff* are:

- **Age** - incidence is much higher in those aged over 65 years
- **Antibiotic therapy** - those who are receiving or who have recently received antibiotic treatment (within 3 months), especially broad-spectrum antibiotics.
- **Underlying disease** - those with chronic renal disease, underlying gastrointestinal conditions and oncology residents.
- **Recent hospital stay/admission** - those who are frequently in hospital or who have had a lengthy stay in hospital.
- **Other medication** – those receiving anti-ulcer medications, including antacids and proton pump inhibitors (PPIs) such as Omeprazole, which are a group of medications used for treating reflux, heartburn and indigestion.
- **Nasogastric tubes** – those undergoing treatments requiring nasogastric tubes.
- **Colonisation with *C. diff*** - those already colonised have the bacteria present in their bowel (but not producing toxins) are at greater risk of developing CDI infection.

## Management of *Clostridioides difficile*

The following mnemonic protocol (SIGHT) should be applied when managing a resident with suspected potentially infectious diarrhoea.

### SIGHT adapted from *Clostridioides difficile* infection, Updated guidance on management and treatment July 2022 UKHSA

<b>S</b>	Suspect that a case may be infective where there is no clear alternative cause for diarrhoea.
<b>I</b>	Isolate the resident in their own room.
<b>G</b>	Gloves and aprons must be used for all contacts with the resident and their environment.
<b>H</b>	Hand washing with liquid soap and water should be carried out before and after each contact with the resident and the resident's environment.
<b>T</b>	Test the stool for toxin by sending a specimen immediately.

- The resident should be reviewed by their GP promptly and all medication should be reviewed.
- Antibiotics causing diarrhoea should be stopped if clinically appropriate.
- Stop laxatives.
- Medication which is given to stop diarrhoea should not be prescribed in acute infection.
- For residents with or at high risk of *C. diff* infection consideration should be given to stopping/reviewing the need for proton pump inhibitors (PPI's).

## How is *Clostridioides difficile* treated?

A mild *C.diff* infection can usually be controlled by stopping the antibiotics that are causing the initial infection together with increased fluid intake. For more severe cases treatment includes a 10–14 day course of a specific type of antibiotic known to kill the bacteria. Rarely, serious infections may require surgery to remove a damaged section of the bowel. *C. diff* infections usually respond well to treatment, with most people making a full recovery in a week or two.

Residents should be carefully observed, and stool charts completed daily after each bowel movement. Changes in resident's condition should be documented and reported immediately to the manager and medical assistance may be required.

## Clostridioides difficile precautions – Hand Hygiene, Isolation, PPE, and Cleaning

### Hand Hygiene

*C. diff* bacteria spread very easily. Despite this, *C. diff* infections can usually be prevented by practicing good hygiene, such as washing hands regularly with soap and water.

**Alcohol hand rubs do not kill spores therefore should not be used**

**Staff should be 'Bare Below the Elbows' whilst on duty**

### Isolation

Any resident with confirmed or suspected *C. diff* colonisation or infection sharing a bedroom must be transferred to a single room, as early isolation in a care home helps to control the potential risk of an outbreak and reduce risk of transmission. The need for isolation should be clearly explained to the residents and their visitors/relatives. Isolate symptomatic residents until they are a minimum of 72 hours free from symptoms, passed a formed stool Type 1-4 on the Bristol Stool Chart or their bowel habit has returned to normal.

### PPE

Wear disposable gloves and apron when caring for a resident with *C. diff* and when in contact with their environment. Gloves and apron should be removed (**gloves first then apron**) after each activity is completed. Hand washing with liquid soap and warm running water after removing each item of PPE.

### Cleaning

*C. difficile* spores can survive in the environment for months or possibly years if not adequately cleaned. Therefore, an enhanced cleaning schedule should be undertaken when a resident is suspected or confirmed to have *C. difficile*. Cleaning with warm water and a pH neutral detergent/detergent wipe alone is insufficient to destroy *C. difficile* spores. A two-stage cleaning process must be implemented. Following cleaning, surfaces must be disinfected with a sporicidal product, e.g., 1,000 parts per million (ppm) chlorine-based solution. Please ensure this is diluted to appropriate efficacy according to manufacturer's recommendations.

Please see the SNTI *Clostridioides difficile* action card for the care of a resident with a *C.diff* infection.

For further *Clostridioides difficile* information [Click here](#)

## Clostridioides *difficile* strain 955

Since 2021 UKHSA have been investigating a **strain of *C.diff* 955**. This new strain has been of concern due to it causing outbreaks of infection in hospital. It has also been found in other parts of England where there is no link to hospital outbreaks.

### The main concerns with strain 955 are,








- It appears to spread readily.
- The resident may present with more severe disease symptoms or as a recurrence.
- An increase in deaths has been noted with patients identified as having strain 955.
- The hospitals that have experienced outbreaks with this strain have found it difficult to control and have required enhanced IPC measures, together with implementing deep cleaning of the environment following transfers out of the ward and into the community environment.

Should you have a resident identified with 955 this will most likely be communicated by the hospital to the care home or via the CWICB IPC team.

### All of the *c.diff* precautions listed above must be strictly followed, along with the additional control measures listed below,

- If the home has been instructed the resident has 955, ensure that the residents GP has been informed and all their healthcare records record this.
- Ensure this information about the resident at staff hand over.
- Seek urgent medical review of the resident, should symptoms recommence (i.e., diarrhoea restarts Bristol stool chart 6 or above) or increase in severity.
- Maintain a strict Bristol Stool Chart to monitor symptoms.
- Implement regular observations e.g., temperature, blood pressure.
- Escalate any medical concerns immediately.
- If admission to hospital is required, ensure the paramedics and receiving hospital are aware the resident has strain 955.
- It is important that environmental cleaning with a 2-stage process (detergent followed by a chlorine-based solution) is strictly always adhered too, e.g., on daily cleaning, on discharge and at end of episode. Steam clean any soft furnishings.
- There may be situations where the CWICB IPC team will support and offer additional advice where a patient has been identified with 955 post discharge. A risk assessment will be completed.
- Ensure the residents care plan is completed and regularly updated for continued safe management of the resident.

## Bristol Stool Chart

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



