

# C- DIFF INFECTION

## (*Clostridium difficile* Infection)

### **Introduction**

*Clostridium difficile* also known as *C.diff* is a germ (bacterium) that exists naturally in the bowel of many people. Usually *C.diff* does not result in problems in healthy individuals.

*C.diff* bacteria can cause disease where there is interference with the balance of normal harmless bacteria in the bowel. This can happen when taking antibiotics to treat other infections.

Patients being treated with broad spectrum antibiotics (kills a wide range of bacteria) are those who are at a very high risk of *C.diff* infection. The antibiotic will not only kill the harmful bacteria but also the normal harmless bacteria in the bowel. *C.diff* grow in high numbers and produce toxins (poisons). It is these toxins that result in the symptoms of diarrhoea.

#### **Interesting Fact: Did you know?**

*C-diff* can be found in about 3% adults and two-thirds of babies with no symptoms.

### **How the infection is spread**

*C.diff* produces spores (spore is a form of the bacterium which is resistant to drying) which are found in the faeces of infected patients. Patients with diarrhoea can excrete large amounts of these spores. These spores can contaminate the surrounding areas and surfaces such as the toilets, commodes, clothing and bed linen. *C. diff* are spread via the hands or coming into contact with infected faeces.

### **Symptoms**

Common symptoms include:

- Mild to severe diarrhoea
- Blood-stained stools
- Fever
- Cramps in the abdomen (tummy)

### **Diagnosis**

*C.diff* infection is diagnosed by sending a stool sample to the laboratory for testing.

## Treatment

The patient's doctor will decide if treatment is necessary. All patients on antibiotics will have their treatment reviewed and may be prescribed specific antibiotics that kill *C.diff*. In addition, some patients are prescribed probiotics e.g. yoghurts which consist of good bacteria to rebalance bacteria within the bowel. However, the benefit of probiotics has not been proven.

## Protection and prevention

*C.diff* spores can survive outside the body for a long time on various surfaces and objects. It is therefore extremely important to ensure thorough cleaning.

In hospitals and care homes, patients with suspected *C.diff* infection are isolated. This means that they will be put into a room by themselves to prevent spread of infection to other patients or residents.

There are certain practices which can help reduce the spread of *C.diff*. These include:

- Maintenance of good hand hygiene by washing hands frequently with soap and water. Alcohol gels and rubs do not kill the *C.diff* spores but prevent other infections.
- Cleaning of hard surfaces (e.g. handles) regularly using household cleaning products. During a *C.diff* infection use of household bleach will kill the bacteria.
- Informing your doctor if you develop diarrhoea when being treated with antibiotics.

### Interesting Fact: **Did you know?**

*C.diff* can survive for up to two years in the open air or dirt and 3-5 months on surfaces.

### Useful links:

For further of information on C diff please visit the links below:

[NHS CHOICES/ NHS Direct](#)

[HPA](#)

[PATIENT UK](#)

Acknowledgements:

1. Health protection agency (2009). Clostridium difficile fact sheet: [http://www.hpa.org.uk/web/HPAwebFile/HPAweb\\_C/1236069362364](http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1236069362364)
2. NHS choices website : <http://www.nhs.uk/conditions/Clostridium-difficile/Pages/Introduction.aspx>
3. Patient UK website: <http://www.patient.co.uk/health/Clostridium-Difficile.htm>
4. Old UHL website