UNDERSTANDING CLOSTRIDIUM DIFFICILE:
A PATIENT GUIDE
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This guide has been given to you because you have been diagnosed with *Clostridium difficile* infection (*C. difficile*). Whether you have been diagnosed by your doctor, in a care home, nursing home or whilst in hospital, the information provided in this booklet will explain what *C. difficile* is, the treatments available and advice on how to manage the infection.
WHAT IS CLOSTRIDIUM DIFFICILE (C. DIFFICILE)?

C. difficile or C. diff, is short for Clostridium difficile, which is a type of bacteria (germ) that between 3%-5% of the adult population carry in their gut without becoming ill. It is normally kept under control by the ‘good’ bacteria in the gut. However, when the good bacteria are reduced, e.g. by taking antibiotics, C. difficile can multiply and produce toxins (poisons) which can cause diarrhoea.

WHAT ARE THE SYMPTOMS?

The main symptom of C. difficile infection is diarrhoea which has a particularly unpleasant smell, but other symptoms can include:

- Stomach cramps and pains
- Fever
- Nausea (feeling sick)
- Loss of appetite

Symptoms may last from a few days to several weeks. Some patients may become seriously ill from toxins produced by the C. difficile bacteria which can inflame and damage the colon (known as colitis).

HOW IS C. DIFFICILE INFECTION DIAGNOSED?

It is difficult to diagnose C. difficile infection by the symptoms alone. Therefore, a sample of diarrhoea is taken and sent to a laboratory for testing for the presence of the C. difficile toxins. You can normally expect the result to be available within a day, but this is dependent on the local laboratory service.

WHO IS MOST AT RISK OF GETTING C. DIFFICILE INFECTION?

People are more at risk of developing C. difficile infection if they:

- Are over 65 years old
- Are taking, or have recently finished taking, antibiotics or any other medication that may alter the normal balance of bacteria in the gut
- Have a reduced resistance to infection generally, i.e. have a weakened immune system due to illness or medical treatments such as chemotherapy
- Have spent a long time in hospital or other type of healthcare setting such as a nursing home
- Have a serious underlying illness
- Have had bowel surgery
HOW DID I CATCH IT?

*C. difficile* bacteria form spores (germs that have a protective coating). These spores can be found in the diarrhoea of an infected person and once outside the body can survive for a long time in the environment. *C. difficile* is highly infectious and can be spread from person to person unless strict hygiene measures are followed.

*C. difficile* infection occurs when spores enter the body through the mouth and are swallowed. Usually a person will be on, or have recently been given, antibiotics for another infection. The normal (good) gut bacteria will be reduced, leaving a patient more vulnerable to infection from *C. difficile* spores. Some people may be carriers of *C. difficile* and the source of their infection will be *C. difficile* living in their gut.

Spores from the environment can be spread very easily through contact with surfaces that have been contaminated, so hand washing is an essential part of preventing the spread of the infection. In hospital or nursing or care home environments, spores can spread to patients in many ways, especially on the hands. For example by patients, staff and visitors who have touched contaminated surfaces such as furniture, medical equipment, toilets, door handles, sinks and taps.

Alcohol hand gels are not effective against *C. difficile* spores. It is important that spores are removed from the hands by thoroughly washing with liquid soap and water then thoroughly drying hands using a paper towel. If you are in hospital or in a nursing or care home, do not be afraid to remind staff of this. Remember, you MUST wash your hands after using the toilet and before eating or handling food: this will help prevent germs spreading. Don’t forget to ask for help with this if you need it.

HOW IS C. DIFFICILE INFECTION TREATED?

*C. difficile* infection can be treated with specific antibiotics for the infection, such as: metronidazole, vancomycin and fidaxomicin, which are usually taken orally for 10 days. Milder cases of the infection may not need any treatment although your doctor may decide to stop any medicines that could be making the infection worse, such as other antibiotics. Your doctor will assess the treatment options and decide which is the most appropriate for you.

Drinking plenty of fluids will help keep the body hydrated. You may need to be given extra fluids intravenously if you become dehydrated. Your condition will be monitored closely and it is important to inform your doctor if you feel your symptoms are not improving or are becoming worse.

You should not take any medicines to stop the diarrhoea (anti-diarrhoeals containing loperamide, such as Imodium) while you are suffering from *C. difficile* infection as this can slow down the rate that *C. difficile* toxins are cleared from the gut.
CAN C. DIFFICILE INFECTION COME BACK?
Most people will recover from C. difficile infection within one-two weeks following treatment; however there is a 20%-30% chance that the infection and associated symptoms may return up to three months following treatment.

A very small number of people suffer from multiple relapses; further treatments can be discussed with your doctor.

TREATING C. DIFFICILE INFECTION IN HOSPITAL/NURSING HOMES
If you are being treated in a hospital you will be cared for in a single room (isolation room) or you will be moved to another ward or area with other patients who have the same infection. Once the diarrhoea has stopped, you may be moved back to a regular ward or if you are well enough you may be discharged to complete your treatment at home. In a nursing or care home environment you will be cared for in your own room and will have to remain there until you are clear from the infection. This is to minimise the risk of spreading the infection to others. Staff, patients and visitors will need to ensure that they comply with the strict Infection Prevention protocols at all times. Housekeeping staff will also carry out a special cleaning routine of your environment.

It is important to inform staff immediately if you have any further episodes of diarrhoea once your treatment has been completed.

If you need to wash soiled clothing, please see information contained in the ‘Important things to remember’ section on page 11. For patients in hospital, it is best to ask staff to provide you with hospital nightwear whilst you are infectious. If you do have any clothing that needs to be taken home to be washed, make sure that these items are washed separately from your normal load at a temperature of 60 degrees. Nursing or care homes will wash your clothes as per local guidelines.

PRECAUTIONS FOR VISITORS AND STAFF
Healthy people are unlikely to develop C. difficile infection, but precautions must still be taken to prevent the spread of the infection. Visitors must wash their hands with soap and water before and after contact with you and your immediate environment. If visitors help with your personal care they will be asked to wear disposable gloves and aprons.

People who are taking antibiotics, have recently taken antibiotics or who have poor immune systems are more susceptible to infection and should seek advice from ward or nursing staff before visiting you. If visitors are seeing other people in the hospital/nursing home it is best if they see you last.

Staff and visitors should be thorough in their hand washing, using soap and water every time they deliver treatment or visit.
IMPORTANT THINGS TO REMEMBER

To clean surfaces that may have been contaminated with \textit{C. difficile} spores, wear disposable gloves, use bleach-based products and a disposable cloth, e.g. paper towels. Clean surfaces, particularly the toilet bowl, toilet seat and toilet flush handle, sink and taps. Where there may be heavy soiling, wipe any visible matter first then dispose of the cloth. Take another disposable cloth and use bleach to clean the area, repeat this again, disposing of the cloth each time.

If you need to wash soiled clothing, items should be kept separate from the rest of the household washing. Some hospitals provide special bags that can be put straight into your washing machine. However, if you have not been treated in hospital or if these bags are not available, disposable gloves should be worn when handling any soiled items. Be sure to wear the disposable gloves when placing items in the machine. Take care not to overload the machine so that water can circulate freely, as this will help to rinse away the germs and wash at a temperature of 60 degrees. Remember to wash your hands after removing gloves. Nursing or care homes will wash your clothes as per guidelines.

If you use incontinence pads, contact your local authority waste disposal department for advice. Incontinence pads should not be put out for domestic rubbish collection.

WHAT IF THE DIARRHOEA RECURS AT HOME?

- Contact your doctor immediately and tell them you have previously been diagnosed as having \textit{C. difficile} infection; if visiting, make sure that you show them your alert card
- Do not take any medicine to stop the diarrhoea (anti-diarrhoeals) while you are suffering from \textit{C. difficile} infection
- Wash your hands frequently with soap and water; liquid pump dispensers are the most convenient and hygienic products
- Make sure that all those caring for you read this booklet
If you would like more information or advice about C. difficile infection, please visit: www.cdiff-support.co.uk

Alternatively you can contact your local infection control/microbiology teams (please speak to a member of hospital staff for details of who to contact), send an email to info@cdiff-support.co.uk or telephone Graziella Kontkowski on 07778 518 177.

For re-prints please email: CDiffPatientguide@astellas.com