

Carbapenemase-producing Enterobacteriaceae

What is CPE and CRE?

Carbapenem Resistant Enterobacteriaceae (CRE) are bacteria that usually live harmlessly in the gut of humans. The presence of the bacteria is called 'colonisation' (a person is said to be a 'carrier'). However, if the bacteria get into the wrong place, such as the bladder or bloodstream they can cause infection. CRE are resistant to the carbapenem class of antibiotics.

Carbapenemase-producing Enterobacteriaceae (CPE) on the other hand are a subset of CRE that produce carbapenemase. Carbapenems are one of the most powerful types of antibiotics. Carbapenemases are enzymes (chemicals), made by some strains of these bacteria, which allow them to destroy carbapenem antibiotics and so the bacteria are said to be resistant to the antibiotics.

Why does carbapenem resistance matter?

Carbapenem antibiotics can only be given in hospital directly into the bloodstream. Until now, doctors have relied on them to successfully treat certain infections when other antibiotics have failed to do so. In a hospital, where there are many vulnerable patients, spread of resistant bacteria can cause huge problems.

How do you get CPE?

Ask your doctor or nurse to explain this to you in more detail. Sometimes this bacteria can be found, living harmlessly, in the gut of humans and so it can be difficult to say when or where you picked it up.

There is an increased chance of picking up these bacteria if you have been a patient in a hospital abroad or in a UK hospital that has had patients carrying the bacteria. For this reason, you must let your doctor know if you have been in a hospital in a different country.

What does it mean if I am a CRE/CPE carrier?

If a person is a carrier of CRE or CPE, they do not need to be treated. However, if the bacteria have caused an infection then antibiotics will be required.

What happens if the result is positive?

If your medical team are concerned that you may have an infection, you may be asked to have you a sample taken of blood, pus, wound, stool, urine, or other body fluid to find out where the infection is coming from so that we can treat it. If you have received treatment in another hospital in the UK or abroad, we may also ask you to provide samples, even if infection is not a concern, so that we know if you are carrying the resistant bacteria as this could be useful for your future treatment and helps us take steps to reduce transmission in the hospital environment. The most common sample we require is a rectal swab - a cotton bud type swab is inserted briefly into your rectum (bottom); or a faecal stool sample can be tested instead.

The samples are tested in the microbiology laboratory and CRE or CPE could be identified. If the result is positive and you have an infection, you will need antibiotics. You will normally be informed of the results within two to three days. If there is no sign of infection and you are a carrier no treatment is required.

You may be asked to provide repeat samples, depending on your treatment plan and/or length of stay in hospital, to check if you are still carrying the bacteria.

How will I be cared for whilst in hospital?

You may be allocated a single room with toilet facilities whilst in hospital to prevent spread of the bacteria.

Healthcare workers should wash their hands regularly. They will use gloves and aprons when caring for you.

CPE can be passed from person to person after touching contaminated surfaces such as bed rails, toilets or equipment. This means that it is important to regularly wash your hands with soap and water, especially after going to the toilet. You should avoid touching medical devices (if you have any) such as your urinary catheter tube or intravenous drip, particularly at the point where it is inserted into the body or skin. Please do not share toiletries or personal items with other patients.

Visitors will be asked to wash their hands on entering and leaving the room and may be asked to wear an apron.

What happens when I go home?

Whilst there is a chance that you may still be a carrier when you go home, quite often this will go away with time. No special measures or treatment are required; any infection will have been treated prior to your discharge.

You should carry on as normal, maintaining good hand hygiene. If you have any concerns, you may wish to contact your GP for advice.

Before you leave hospital, ask the doctor or nurse to give you a letter or card advising that you have had an infection or been/are colonised with carbapenemase-producing Enterobacteriaceae. This will be useful for the future and it is important that you make health care staff aware of it. Should you or a member of your household be admitted to hospital, you should let the hospital staff know that you are, or have been, a carrier and show them the letter/ card.

Sources of information

If you have any queries, please discuss with the nursing or medical staff who can contact the Infection Prevention and Control Team for further advice. You can also obtain information from the following UKHSA website: <https://www.gov.uk/government/collections/carbapenem-resistance-guidance-data-and-analysis>

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the patient experience team on 0300 131 4784 or esh-tr.patientexperience@nhs.net.

Hand hygiene

We are committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of our leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department on 0300 131 4434 or esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

Reference

The Clinical Specialty that has agreed this patient information leaflet: Infection Prevention and Control

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