

## Carbapenemase producing *Enterobacteriaceae* (CPE)

### What does 'carbapenemase producing *Enterobacteriaceae*' mean?

*Enterobacteriaceae* are bacteria that usually live harmlessly in the gut of humans. This 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. 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.

### Do I need to be screened?

Occasionally, it isn't immediately known that a patient is carrying these bacteria and so they may not be placed into a single room straight away. You will be screened if you meet one or more of the following criteria:

- You have shared the same bay (or ward) with a patient who has been found to be carrying CPE.
- You have been an inpatient in a hospital abroad within the last 12 months, including renal haemodialysis (both elective 'holiday dialysis' and emergency dialysis).
- You have been an inpatient in a UK hospital outside Devon, Cornwall and Somerset within the last 12 months.
- You have previously been colonised or had an infection with CPE or close contact with a person who has, if known.

### How will I be screened for CPE?

Screening usually entails taking a rectal swab by inserting it just inside your rectum (bottom). Alternatively, you may be asked to provide a sample of faeces. The swab/sample will be sent to the laboratory and you will normally be informed of the result within two to three days. If the result is negative, a further two screens need to be obtained. The screens should be taken at least 48 hours apart.

### 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 'difficult' infections when other antibiotics have failed to do so. Therefore, in a hospital, where there are many vulnerable patients, spread of resistant bacteria can cause problems.

### Does carriage of CPE need to be treated?

If a person is a carrier of CPE, they do not need to be treated. As mentioned, these bacteria can live harmlessly in the gut. However, if the bacteria have caused an infection then antibiotics will be required.

### How is CPE spread?

If a patient in hospital is carrying these bacteria it can get into the ward environment and can also be passed on by direct contact with that particular patient. For that reason, the patient

will normally be accommodated in a single room. Effective environmental cleaning and good hand hygiene by all, staff and patients, can reduce the risk of spread significantly.

## What if the result is positive?

If the result is positive do ask your doctor or nurse to explain this to you in more detail. You will be given a single room, usually on Torridge ward (Infection Control ward) until you leave hospital. No treatment is necessary unless you have an infection when antibiotics will be given.

## How did I 'pick up' CPE?

Do ask your doctor or nurse to explain this to you in more detail. As mentioned above, sometimes these 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. However, 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, or if you have been in contact with a carrier elsewhere.

## How will I be cared for whilst in hospital?

You will be accommodated in a single room whilst in hospital. You may be asked to provide a number of samples, depending on your length of stay, to check if you are still carrying the bacteria. These will be taken every 2 days. The samples might include a number of swabs from certain areas, such as where the tube for your drip (if you have one) enters the skin, a rectal swab i.e. a sample taken by inserting a swab briefly just inside your rectum (bottom), and/or a faecal sample. You will normally be informed of the results within two to three days.

## Can I have visitors whilst in hospital?

Visitors should be limited, where possible, to household contacts. CPE does not pose a significant risk to other healthy people including pregnant women and babies. Visitors will not

normally need to wear protective clothing but should wash their hands immediately prior to leaving the isolation room and should not wander around the ward or visit other patients.

## How can the spread of CPE be prevented?

Accommodating you in a single room helps to prevent spread of the bacteria. Healthcare workers should clean their hands regularly. They will wear gloves and long sleeve gowns when caring for you. The most important measure for you to take is to wash your hands well 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 and your intravenous drip, particularly at the point where it is inserted into the body or skin. Visitors will be asked to clean their hands on entering and leaving the room.

## How will I know if I am at risk of being a carrier or having an infection?

Your doctor or nurse may suspect that you are a carrier if you have been in a hospital abroad, or in a UK hospital, or if you have been in contact with a carrier elsewhere. If any of these reasons apply to you, screening will be arranged for you and you will be accommodated in a single room at least until the results are known.

## What about 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.

## Where can I find more information?

Please contact the Infection Prevention and Control Team on:  
**01392 402355**

Or you can go to the following website:

Public Health England  
**[www.gov.uk/government/organisations/public-health-england](http://www.gov.uk/government/organisations/public-health-england)**

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