Carbapenemase-producing Enterobacteriaceae (CPE): I may be a carrier (or have an infection) – what does this mean?

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.
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 these resistant bacteria can cause problems.

Does carriage of carbapenemase-producing Enterobacteriaceae need to be treated?
If a person is a carrier of carbapenemase-producing Enterobacteriaceae (sometimes called 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, antibiotics will be required.

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 that has had patients carrying these bacteria, 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 with your own toilet facilities at least until the results are known.

How will I be screened for carbapenemase-producing Enterobacteriaceae?
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, the doctors or nurses may wish to check that a further two samples are negative before you can be accommodated on the main ward. These measures will not hinder your care in any way. If all results are negative, no further actions are required.
Advice for patients who have a positive result

What happens 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 continue to be accommodated in a single room whilst in hospital. If you have an infection, you will need to have antibiotics. However, if there are no signs of infection and you are simply ‘carrying’ the bacteria, no treatment is required.

How can the spread of carbapenemase-producing Enterobacteriaceae be prevented?
Accommodating you in a single room, if the result is positive, helps to prevent spread of the bacteria. Healthcare workers should wash their hands regularly. They will use gloves and aprons 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 (into a vein) drip, particularly at the point where it is inserted into the body or skin. Visitors will be asked to wash their hands on entering and leaving the room and may be asked to wear an apron.

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.

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 colonised with carbapenemase-producing Enterobacteriaceae. This will be useful for the future and it is important that you make healthcare 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.
Where can I find more information?

If you would like any further information, please speak to a member of your care staff, who may also contact the Infection Prevention and Control Team for you.

Reference


If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Infection Control Team on 01384 244174 (9am to 5pm, Monday to Friday)