

## Carbapenemase-producing Enterobacterales (CPE)

# Information for patients



### WHAT IS CPE?

**Enterobacterales** is the name given to a family of bacteria that normally lives in the bowel. A well-known type of Enterobacterales you may have heard of is *Escherichia coli*, or *E.coli* for short.

**Carbapenemases** are enzymes (chemicals) made by some strains of bacteria that prevent carbapenem antibiotics from working against bacteria.

**Carbapenemase-producing Enterobacterales (CPE)** are a family of bacteria that produce an enzyme that breaks down carbapenem antibiotics so they no longer work – the bacteria are usually resistant to these and many other antibiotics.

Since the first reported outbreak of CPE in Australia in 2012, the number of people with CPE has been increasing. Most of the cases of CPE identified have been associated with international travel or outbreaks in healthcare facilities.

### How do people get infected with CPE?

People who are generally well do not usually get CPE infections. However, it is important to know that people may carry CPE in their bowel or in a wound without being aware.

People who carry CPE are at risk of getting a CPE infection if they have an operation or need treatment involving ventilators, catheters, or intravenous lines (drips). People who have taken antibiotics for long periods of time may also be at risk of developing a CPE infection.

### Why is screening important?

Screening is important to identify people who have an infection due to CPE or who may be carriers of CPE (colonised). Identifying whether you have CPE will ensure that you receive the most appropriate treatment and help reduce the risk of CPE spreading to other people. If you know that you have CPE, you should tell your doctor as this is important for your treatment. When you are in hospital you may be accommodated in a single room with your own toilet facilities, and staff may use additional infection control precautions until the screening results are known.

### When will I be screened?

Screening is usually done following admission to hospital if you have been identified as being at risk of having CPE. Some hospitals may choose to screen you if you are admitted to areas where there is a higher risk for CPE; these areas include intensive care units (ICU), renal dialysis units and aged care homes.

Screening will be required if you:

- Are known to have CPE, or have a history of CPE from a previous hospital admission
- Have been identified as a 'contact' of a patient known to have CPE (for example, you were a patient in a ward at the same time as a patient with CPE)
- Have been admitted to a hospital or aged care home outside Australia in the past 12 months
- Have been admitted to a high-risk unit such as ICU.

Screening swabs or samples may be collected a number of times during a hospital stay. The need for repeated screening depends on the risk you may have for CPE, or whether you have been exposed to CPE.

### How will I be screened for CPE?

Screening usually involves either the collection of a sample of your faeces, or a rectal swab. A rectal swab is collected by inserting a swab just inside your rectum (bottom). Swabs will also be collected from intravenous lines (drips), a urinary catheter or a wound if you have any of these. The swab or sample will be sent to the laboratory and you will usually be informed of the result within two to three days.

## What happens if my CPE test is positive?

If your screening test for CPE is positive, it means you are carrying (colonised with) CPE. People may not know that they are carrying CPE and may never develop an infection or require treatment. However, in the unlikely event of an infection caused by CPE, this can be serious as CPE infections can be very difficult to treat.

If you are in a hospital with CPE, the staff will use specific infection control precautions to reduce the risk of spreading CPE to other patients. These include:

- Caring for you in a single room with your own toilet
- Wearing a gown and gloves while they are caring for you.

You can help prevent spreading CPE to other patients by:

- Regularly washing your hands with soap and water or using an alcohol-based hand rub
- Staying in your room, unless you need to be transferred for special tests or treatment.

To prevent the spread of CPE to other people when you are at home, it is important that you follow these precautions:

- Wash your hands with soap and water and dry them thoroughly – for example, after going to the toilet, before preparing and eating food and after touching animals
- Use your own towels and face cloths, and do not share these items with other people
- Avoid sharing grooming items such as nail scissors, tweezers, razors and toothbrushes
- Cover any skin wounds if possible

Make sure you follow instructions and advice provided by your doctor or healthcare provider on how to care for wounds, or manage medical devices.

However:

- All your clothing and towels can be washed the way you usually do
- All eating utensils and dishes can be washed the way you usually do.

## What happens if my CPE test is negative?

If your CPE screening result is negative, you may still need to be screened again if you are at risk of having CPE. For example, you may be screened each week for as long as you are in hospital. The number of times you will be screened will depend on your specific circumstances.

## CPE treatment

Because CPE are usually resistant to many antibiotics, the options available to treat infections may be limited. If you know you are carrying CPE following screening and then you get an infection, it is very important for you to tell your doctor that you are carrying CPE. This allows them to identify the best antibiotic to treat you.

To reduce the emergence and spread of resistant bacteria such as CPE, it is important to only use antibiotics when they are necessary. Your doctor or pharmacist will make sure you are given the correct antibiotic for the right length of time. It is important that you take the antibiotic, as directed, for the required length of time.

If you have any concerns, please talk to your doctor.

## If I have CPE, can I have visitors?

If you have CPE, you can still have visitors, but it is important to know that CPE can affect people who have some long-term health problems.

Talk with your doctor or nurse if someone with a long-term health problem is planning to visit you.

It is also important that you and all visitors wash their hands with soap and water, or an alcohol-based hand rub before and after the visit.

## Where can I get more information?

If you have any questions, ask the doctor or nurse looking after you or your family member, or ask to speak with someone from the hospital's infection control team.

