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| Screening for carbapenemase-producing *Enterobacteriaceae* (CPE) |
| Information for residential and aged care staff |

## What is the issue?

Recently, residents of this residential acre facility have been identified as carrying bacteria called carbapenemase-producing *Enterobacteriaceae* (CPE). The information in this sheet has been prepared for staff of the facility. It explains the steps taken by the Victorian Department of Health and Human Services and the facility management as well as the ways you can help to manage this issue to protect the health of residents.

## What is CPE?

***Enterobacteriaceae*** is the name given to a family of bacteria that normally lives in our bowel. A common *Enterobacteriaceae* you may have heard of is *Escherichia coli* or *E. coli*.

**Carbapenems** are a group of antibiotics (for example, meropenem) that usually work against these bacteria. Some bacteria have become hard to treat because these antibiotics no longer work – the bacteria have become resistant to the antibiotics. These bacteria are called **carbapenemase-producing *Enterobacteriaceae*** (CPE).

## Who is at risk of CPE?

In Australia, CPE infections are rare. When people do get an infection with CPE, it has often been picked up when the person has had medical care overseas. CPE is found in patients in hospitals and clinics around the world, but particularly in Greece, India and South‑East Asia. More recently transmission of CPE has been associated with medical care received in some Victorian acute care hospitals.

People at higher risk of picking up CPE have usually had prolonged admissions to hospitals, been treated with many antibiotics, have a number of long-term health problems or had an indwelling medical device such as a urinary catheter.

Healthy people 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 symptoms. This is called colonisation.

## How is CPE spread?

CPE is usually found in the bowel of infected or colonised people. Sometimes, it may also be found in urine, wounds and other sites. CPE is usually spread person to person through contact with someone who is infected or colonised, particularly contact with faeces or wounds.

CPE may also be spread via equipment that has been shared between residents and has not been adequately cleaned and disinfected between uses; or through contamination of the environment.

## What does it mean to have CPE?

In most people CPE are harmless and do not cause infection. However in some people, such as those whose immune system is compromised, CPE can become a serious problem. It may cause urinary tract infections (UTI), pneumonia, bladder or kidney infections, bloodstream infections, and many other types of infections.

People who carry CPE are at risk of getting a CPE infection if they have an operation (especially on the prostate) or need treatment involving invasive devices, such as ventilators, urinary catheters, or intravenous drips.

## Is there treatment for CPE?

Infections caused by CPE can be very difficult to treat. There are not many options for treating CPE infections as the bacteria are usually resistant to most antibiotics. It is better that people try to prevent the infection in the first place.

## Why are residents being screened for CPE?

In order to help with the planning for future care and in line with both the Department’s and the facility’s infection control measures, residents are being screened for CPE as a precaution.

## How will residents be screened?

Residents will have a sample of faeces sent to a microbiology laboratory where it will be tested for CPE. The results will be reported back to the residents’ General Practitioners who will help implement a care plan. Results may take up to two weeks to be finalised.

## As a staff member, am I at risk of getting CPE?

Healthy people are usually not at risk of getting CPE. The most effective way to prevent you from picking up CPE is to follow basic infection control precautions such as hand hygiene. Hand hygiene is one of the most important ways of preventing the spread of infections. Hand hygiene can be either washing your hands with soap and water or using an alcohol-based hand rub. Always perform hand hygiene before and after providing personal care to residents, after going to the toilet and before eating.

## How can I help prevent the spread of CPE?

You can help prevent the spread of CPE by ensuring you comply with infection control precautions. There are basic infection control precautions that all staff should use at all times for all residents. These are called **standard precautions**. Sometimes additional precautions are required to prevent the spread of an infection or organism, these are called **transmission-based precautions**. The transmission-based precautions required to prevent the spread of CPE are called **contact precautions**.

### Standard Precautions:

The use of standard precautions is an essential strategy for preventing and minimising the spread of infections between residents. Standard precautions will also protect staff from transmission of infections as well. Standard precautions include:

* **Hand hygiene:** Particular attention should be made to performing hand hygiene (i.e. washing your hands with soap and water or using an alcohol based hand rub) before and after providing care for residents. You should also assist residents to perform hand hygiene whenever they leave their room, prior to communal activities and before eating food. Remind visitors that they should perform hand hygiene before and after visiting any resident.
  + **Cleaning shared equipment:** All equipment shared between patients must be cleaned after each use before being used on another resident. This may include items such as lifting machines, commodes or thermometers.

### Contact precautions:

Contact precautions are additional precautions which should be used for residents confirmed as having CPE. This will mean using gowns and gloves when attending to their personal care, such as showering and toileting. Some important points to remember when using contact precautions are:

* Hand hygiene should be undertaken before and after all glove use
* Staff should remove gowns and gloves **before** exiting the resident’s room
* Limit the number of shared items or equipment that need to be used between residents in contact precautions. Where possible equipment should be dedicated to a resident in contact precautions.
  + Visitors **do not** need to use gowns and gloves when visiting a resident in contact precautions unless they will be participating in personal care such as showering or toileting.

## Will residents’ activities change while testing is underway?

No. Residents will still be able to undertake normal activities including contact with specialists and allied health practitioners. If a resident is identified as having CPE it is important that healthcare providers are informed of this diagnosis prior to them visiting so that they can ensure they take appropriate infection control precautions.

## Where can I get more information?

For further information please contact your facility manager.

Adapted from the Australian Commission on Safety and Quality in Health Care [*Information for patients and their visitors: Carbapenem Resistant Enterbacteriaceae (CRE)*](http://www.safetyandquality.gov.au/publications/cre-patient-information-sheet/) (2013) <http://www.safetyandquality.gov.au/publications/cre-patient-information-sheet/>.

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