

Carbapenemase Producing Enterobacteriaceae (CPE) Fact Sheet

What is CPE?

CPE are a group of germs (bacteria) which produce an enzyme that can break down many types of antibiotics, including carbapenem. Resistance to carbapenem antibiotics is a concern because these antibiotics are used to treat serious infections when other antibiotics have not worked.

How does CPE spread?

CPE can be found in the bowel or sometimes on the skin. It can be spread from person-to-person on hands and equipment that have CPE on them. This can happen in the community or in healthcare settings. You likely won't know where you came into contact with CPE. In hospital settings, CPE can be spread from person-to-person from unclean hands and from equipment that has not been cleaned properly between uses.

How harmful is CPE and how is it treated?

Colonization with CPE is when CPE live harmlessly on people, usually in the bowel. For most people, colonization with CPE is no more dangerous than any other germs we live with. People who are colonized with CPE will not be treated with antibiotics. People who have CPE in their bowel will likely carry it for a long time.

Some people may be at risk to develop CPE infections and may require treatment. CPE infections can occur in many areas, such as in wounds, blood, or urine. These infections can become serious, with death rates as high as 50%. Because CPE are resistant to many antibiotics, treatment of these infections is difficult. It's very important to finish the prescription for antibiotics, even if you are feeling better.

Who can get CPE?

People in hospital who have open wounds, catheters, drainage tubes, long hospitalizations, or are very ill, are most likely to get CPE. Residents living in a personal care home are at lower risk for CPE. Their risk increases if they are admitted for a long stay in hospital, receive a lot of antibiotics, or have contact with a person with CPE or equipment with CPE on it. Health care workers who follow the suggested precautions and people in the community are not at increased risk for CPE.

How is CPE detected?

Testing for CPE is important to see if these bacteria are spreading to other clients. Usually we look for CPE by taking swabs of the rectum or ostomy. Testing for CPE is not done in personal care homes or for people living in the community. If CPE is found in someone while still in hospital, the patient and their doctor will be notified.

Are special precautions necessary in a health care setting?

Special precautions (called Contact Precautions) are taken during a hospital stay to stop CPE from spreading to other sick people. **The best way to stop the spread of CPE is for staff, clients, families and visitors to clean hands often with soap and water or alcohol-based hand rub.**

Some of the precautions for a person with CPE during a hospital stay will include the following:

- Placement in a private room
- Placement of a sign on the room door to alert everyone of the precautions needed
- Use of alcohol-based hand rub or handwashing by everyone entering and exiting the room, including the patient
- Use of a long-sleeved gown and gloves by caregivers and visitors
- If you have to leave your hospital room for medical reasons, your health care providers will assist you to clean your hands well, cover any open wounds, and wear clean clothes or a housecoat
- Not visiting other areas of the hospital, including the cafeteria
- Follow the procedures outlined by staff to prevent spreading CPE to others.

We understand these measures may be inconvenient, but it is important to protect other people from CPE. Your cooperation is appreciated.

In a personal care home, precautions are generally not required. However, these special precautions may be necessary if the person has an infection with CPE and it cannot be contained (e.g. covering a wound with a dressing).

How can I stop CPE from spreading at home?

The risk to healthy family members and friends is very low when following the measures below:

- Cleaning hands well is important for a person with CPE, as well as their family members all of the time. This includes before preparing food, before eating and after using the toilet.
- Shower or bathe regularly
- Do not share personal/grooming items such as towels, clothing, bar soap, or razors
- Clean your home regularly, especially the kitchen and bathroom
- Wash clothing using regular laundry soap in the regular wash cycle
- Cover wounds that are draining with a clean, dry dressing
- See a health care provider as soon as possible if an infection is suspected
- Tell your healthcare provider if you have CPE, including home care workers, therapists and staff in the doctor's office