

Frequently Asked Questions about Antibiotic-Resistant Germs, such as Carbapenem-Resistant Organisms

What are antibiotic-resistant germs, and why are they potentially dangerous?

Multiple types of germs that commonly live in our gut or the environment can become antibiotic-resistant. This means that medications that would usually be used to kill these germs do not work. Some common resistant germs are called “carbapenem-resistant Enterobacterales (CRE)”, “carbapenem-resistant *Acinetobacter baumannii* (CRAB)”, and “carbapenem-resistant *Pseudomonas aeruginosa* (CRPA)”.

Sometimes these germs can cause serious infections. These include urinary tract infections, bloodstream infections, wound infections, and pneumonia. These infections are difficult to treat because commonly used medications do not kill these germs.

Carbapenems are a group of antibiotic medications that are used to treat serious infections caused by germs that are resistant to other medications. Carbapenems are considered last resort drugs for some infections. Carbapenem-resistant germs have developed resistance to these medications and can no longer be treated with carbapenems. This means that the carbapenem antibiotics won’t work to kill these germs.

What are carbapenemase-producing organisms (CPOs)?

The most concerning carbapenem-resistant germs are called “carbapenemase-producing organisms” or CPOs. CPO germs are very resistant to antibiotics, and they may also spread this resistance to other germs. CPOs are a concern for public health.

How are these germs spread?

These germs are spread from person to person or through contact with contaminated surfaces. Contact with body fluids and stool poses the highest risk. These germs can cause infections when they enter the body. They often enter through invasive medical devices, such as catheters and tubes, or wounds.

Do these germs always cause symptoms or an infection?

People with CPOs can have these germs on their bodies without having an infection, or any symptoms at all. This is called colonization. Colonized people do not need antibiotics or any other treatment.

Who is most likely to get an infection with these germs?

Healthy people usually don’t get CPO germs. They mainly affect people in hospitals and long-term healthcare settings who are being treated for other conditions. These germs are more likely to affect

people with weakened immune systems or medical devices. Frequent use of antibiotics may also make it more likely for people to get a CPO germ.

Can these germs be treated?

If these germs cause an infection, there may be some antibiotics that will work. Some CPO germs are resistant to all antibiotics, but this is rare.

What are healthcare facilities doing to prevent these germs?

Healthcare facilities follow the Centers for Disease Control and Prevention (CDC) instructions to prevent the spread of these germs. These include:

- Cleaning hands before and after caring for a patient/resident
- Carefully cleaning a patient's/resident's room and medical equipment
- Wearing gloves and a gown before entering the patient/resident room (not done in all care settings)
- Keeping patients with these germs in a single room or in a room with other patients/residents with the same germs (not done in all care settings)
- Only prescribing antibiotics when necessary
- Removing temporary medical devices as soon as possible
- Testing patients/residents for these germs to identify them early and prevent spread to other patients/residents.

What can I do to prevent CPO germ infections?

Patients/residents and their visitors and family members can help prevent these germs. If you are a patient/resident, you should:

- Tell your doctor if you have been hospitalized in another facility or country in the past year.
- Take antibiotics only when prescribed and as prescribed.
- Expect all healthcare providers to clean their hands with soap and water or hand sanitizer before and after touching you or your medical devices. Ask them to do so, if they do not.
- Clean your own hands often, especially:
 - Before and after preparing or eating food
 - Before and after changing bandages
 - After using the bathroom
 - After blowing your nose, coughing, or sneezing
- Ask questions. Understand the risks and benefits of your treatments.

If you are a visitor or family member, you should:

- Clean your hands before entering the patient's/resident's room
- Do not eat in the patient's/resident's room
- Clean your hands immediately before leaving the patient's/resident's room
- Follow all other facility instructions on using gloves or gowns

What if I have a CPO germ?

Follow your healthcare provider's instructions. If your provider prescribes you antibiotics, take them as instructed. Complete the whole antibiotic course even if you feel better. Wash your hands after using

the bathroom, or before and after preparing or eating food. Follow all the hygiene advice your provider gives you.

I am caring for someone with these germs at home; do I need to take special precautions?

CPO germs mainly affect people with multiple medical problems, especially those with medical devices. Healthy people are at a low risk of catching these germs. People providing care for family members with CPOs at home should wash their hands. This includes after touching wounds or respiratory secretions, helping the person use the bathroom, or cleaning up stool. Caregivers should also wash their hands before and after handling the person's medical device (e.g., urinary catheters). This is very important if there is more than one ill or medically vulnerable person at home. Gloves should also be used when contact with stool, body fluids or blood is possible.