

## Carbapenem-resistant Enterobacteriaceae (CRE) Infection: Patient and Family Frequently Asked Questions

### General Information

#### What is a CRE infection?

CRE, which stands for carbapenem-resistant *Enterobacteriaceae*, are a family of bacteria that are resistant to certain antibiotics. CRE are increasing nationally because of antibiotic use.

*Enterobacteriaceae* refers to common bacteria found in the human intestines (gut). Sometimes these bacteria get out of the gut and cause serious infections, such as urinary tract infections, bloodstream infections, wound infections, and pneumonia.

Carbapenems are a group of antibiotics that are usually used to treat serious infections or are used as 'last resort' for some infections. A CRE infection can no longer be treated with some carbapenems because these bacteria have developed resistance to them.

#### How do CRE spread?

To get a CRE infection, a person must be exposed to CRE bacteria. Exposure can occur through contaminated hands, surfaces, or equipment and can be spread unintentionally by healthcare workers and other patients.

#### Can CRE be treated?

Yes, there are usually antibiotics that will work against CRE. It is rare for a CRE to be resistant to all antibiotics. In addition, many people with CRE have the bacteria without knowing it or experiencing any symptoms. These people are said to be carriers or colonized with CRE, and they do not need to be treated with antibiotics.

#### What are hospitals doing to prevent CRE infections?

CRE have been found to spread in healthcare settings, hospitals and other facilities seek to prevent infections. To prevent the spread of CRE, healthcare workers follow precautions to protect their patients. These include:

- Washing hands with soap and water or hand sanitizer before and after caring for a patient or touching objects in a patient's room.
- Carefully cleaning and disinfecting rooms and medical equipment.
- Wearing gloves and a gown before entering the room of a CRE patient.
- Keeping patients with CRE infections in a single room or sharing a room with someone else who has a CRE infection or someone not likely to get an infection.
- Dedicating specific equipment and staff to patients with CRE.
- Removing gloves and gown and washing hands after caring for a patient.
- Prescribing antibiotics only when necessary.
- Removing temporary medical devices as soon as possible.

### Information for Patients

#### Is there a test to find out if I have CRE?

Yes, and the test is safe, painless, and takes just a few minutes. The test involves inserting a small swab (like a Q tip) into your rectum and working with a healthcare provider to send it to the New Hampshire Public Health Lab for analysis.

#### What do I do if I have CRE?

- Follow your healthcare provider's instructions. If your provider prescribes antibiotics, take them

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exactly as instructed and finish the full course, even if you feel better.

- Wash your hands, especially after you touch the infected area and after using the bathroom.
- Follow any other hygiene advice your provider gives you.
- Return for follow up testing to see if you are still carrying the bacteria in the future as directed by your healthcare provider.

### Will I have CRE for the rest of my life?

It is unknown how long people can remain a carrier of CRE; however some studies suggest months. Discuss with your healthcare provider when you can be retested in the future to see if you still have this bacteria or options for treatment if you have an active infections.

### What happens if I am diagnosed with CRE in a healthcare facility?

If you have CRE, you will likely be placed in a private room with your own bathroom or commode. Your healthcare providers will also wear gowns and gloves while caring for you.

- Always wash your hands with soap and water for at least 20 seconds or use alcohol based hand rub:
  - before eating;
  - after using the bathroom;
  - after coughing or sneezing; and
  - after contact with a wound or other body fluids.
- You may be allowed to leave your room and socialize, but you must:
  - wash your hands and change into clean clothes before leaving your room;
  - keep all wounds covered;
  - cover your cough and wash your hands after coughing or sneezing; and
  - follow any additional instructions from your doctor or nurse.
- You should also let your healthcare providers know if you have had a positive CRE result. They can take special precautions to stop CRE from spreading to other patients.

### What happens when I go home?

Your daily activities can essentially remain the same, but be mindful of washing your hands after you use the bathroom, cooking, or eating to prevent the spread to other people. Also be sure to wash your hands after changing bandages, sneezing, or coughing. Follow any other additional instructions from your healthcare provider. No special methods are required for washing dishes, clothing, towels, or bed linens.

### Information for Families

#### How can I prevent a CRE infection?

- Take antibiotics as prescribed.
- Expect all doctors, nurses, and other healthcare providers to wash their hands with soap and water or use hand sanitizer before and after touching your body or tubes going into your body. If they do not, ask them to do so.
- Wash your hands often.
- Ask questions about your healthcare. Understand what is being done and the risks and benefits of tests and procedures.

#### What if my child has a CRE infection, can they still go to school and/or daycare?

Children should remain out of school or daycare until any drainage stops or can be contained with a bandage. Do not allow the child to participate in contact sports or swimming, in order to decrease the chances of reopening the wound and exposing others. Please defer to your child's physician to identify a date when your child can return to daycare or school.

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

Healthy people usually don't get sick with CRE. CRE primarily affects people with other medical problems, especially those with medical devices like urinary catheters or those with chronic wounds.

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- People providing care at home for patients with CRE should wear gloves whenever coming in contact with body fluids (Example: wound care, helping the patient with CRE to use the bathroom, and cleaning up stool).
- Caregivers should also make sure to wash their hands before and after and wear gloves while handling the patient's medical device (Example: urinary catheters).
- Immunosuppressed or seriously ill members of the household should not have contact with potentially infectious bodily fluids, and should promptly wash hands if contact is unavoidable.
- Household members should also avoid sharing personal care items (Example: razors, towels, bar soap).

### For more information:

If you have additional questions or are seeking more information, please reach out to the Bureau of Infectious Disease Control at (603) 271-4496, or the HAI program by email at [haiprogram@dhhs.nh.gov](mailto:haiprogram@dhhs.nh.gov).

You can also find more information about CRE online at <https://www.cdc.gov/hai/organisms/cre/cre-patientgeneral.html>

### References:

This frequently asked questions document for patients and families has been adapted from the CDCs Carbapenem-resistant Enterobacteriaceae (CRE) Infection: Patient FAQs, The Carbapenem-resistant Enterobacteriaceae (CRE) Patient FAQ from the West Virginia Department of Health and Human Resources Bureau for Public Health, and The Emerging and Acute Infectious Diseases Guidelines from the Texas Department of State Health Services [1] [2] [3].

- [1] Centers for Disease Control and Prevention, "Carbapenem-resistant Enterobacteriaceae (CRE) Infection: Patient FAQs," Centers for Disease Control and Prevention, 23 February 2015. [Online]. Available: <https://www.cdc.gov/hai/organisms/cre/cre-patientfaq.html>. [Accessed February 2018].
- [2] Division of Infectious Disease Epidemiology, "Carbapenem-Resistant Enterobacteriaceae (CRE) Patient FAQ," West Virginia Department of Health & Human Resources, Bureau for Public Health, Charleston, 2016.
- [3] Texas Department of State Health Services, "Carbapenem-Resistant Enterobacteriaceae (CRE)," in *Emerging and Acute Infectious Disease Guidelines*, Texas Department of State Health Services, 2018, pp. 48-52.