Carbapenem-Resistant Enterobacterales (CRE)- Factsheet

What are Carbapenem-resistant Enterobacterales?

Carbapenem-resistant Enterobacterales (CRE) are an order of bacteria that are highly resistant to a type of antibiotic called carbapenems. These antibiotics are often considered the last line (meaning strongest) of antibiotics. Resistance to these antibiotics makes infections caused by these bacteria extremely difficult to treat.

What kind of infections are associated with CRE?

Infections that are associated with CRE include:

- Pneumonia
- Urinary tract infections (UTIs)
- Wound infection
- Blood infection (Sepsis)
- Abdominal infections

How is CRE spread?

CRE is typically spread from touching an infected person's bodily fluids (blood, drainage from a wound, urine, stool, or sputum) or from touching a contaminated surface (such as a countertop, chair, doorknob, phone). In a healthcare setting, the bacteria can spread from the hands of healthcare personnel, through contact with contaminated surfaces or improperly cleaned patient care equipment. CRE is not spread through the air or casual contact such as hugging.

Who is at risk?

Healthy people usually do not get CRE infection. Infection often occurs in patients in hospitals, nursing homes, and other healthcare settings, those who have a weakened immune system, and/or who are taking long courses of certain antibiotics are most at risk for CRE infections. Patients who are on medical devices, such as ventilators (breathing machines), urinary (bladder) catheters, or intravenous (IV) catheters are also at a higher risk.

What is the difference between being colonized and being infected with CRE?

A person can either be colonized or infected with CRE. If a person is colonized, it means that the bacteria can be found in the gut, but the person does not feel sick and is not displaying any signs or symptoms of an illness. A colonized person does not need antibiotics for their CRE. A person who is colonized can transmit the bacteria to others if good hand washing is not followed. If a person is infected, it means that the person is experiencing signs and symptoms of an illness.

Do infected people need to be kept home from school, work, or daycare?

No.

How long are people contagious?

Individual factors determine the risk at which any person may be to acquire an infection with this organism. Serious infections are seen among individuals with underlying diseases. Duration of colonization rates are not known.

What treatment is available for people with CRE?

A variety of combinations may be tried in a clinical setting depending on the characteristics of the organism. A clinician with experience and training in infectious diseases should be consulted in these instances.

How can I protect myself and my family?

CRE primarily affects people with an underlying medical problem(s) and/or patient who have a weakened immune system. Generally, healthy people are at low risk of developing an infection, but they may become carriers.

To prevent the spread of CRE, you and your loved ones should wash your hands often, especially:

- Before preparing or eating food.
- Before and after changing wound dressings.
- After using the restroom.
- Before or after handling any medical devices.
- After touching hospital surfaces such as bed rails, bedside tables, doorknobs, remote control or phone.

Take antibiotics only when prescribed and according to the prescriber recommendation.