

## Frequently Asked Questions about...

# *Carbapenem-resistant Enterobacteriaceae (CRE)*

### **Q. What are Carbapenem-resistant *Enterobacteriaceae*?**

A. Carbapenem-resistant *Enterobacteriaceae*, or “CRE”, are a group of bacteria that are highly resistant to antibiotics. Until recently, the bacteria were susceptible to a class of antibiotics called carbapenems, which were developed to treat bacteria that were resistant to other drugs. Due to the overuse of these antibiotics, some types of *Enterobacteriaceae* such as *Escherichia (E. coli)*, *Enterobacter*, *Klebsiella*, and *Salmonella* have now developed resistance to carbapenems.

### **Q. Where are CRE found?**

A. *Enterobacteriaceae* bacteria occur naturally in the environment and sometimes infect humans. *Enterobacteriaceae* that have acquired resistance to carbapenems are sometimes found in healthcare settings due to high levels of antibiotic use.

### **Q. What are the symptoms of infection?**

A. *Enterobacteriaceae* can cause a variety of infections ranging from gastrointestinal illness to pneumonia to invasive infections of the bloodstream or other body organs. Carbapenem-resistant *Enterobacteriaceae* cause the same infections, but the infections are much harder to treat.

### **Q. How does someone catch CRE?**

A. CRE can be transmitted via direct person-to-person contact with an infected person or through indirect contact with objects or environmental surfaces, such as patient care equipment, bed rails, and door knobs.

### **Q. Why may patients in healthcare settings be at risk for contracting CRE?**

A. Risk factors for acquiring a CRE infection include prolonged hospital stays, frequent antibiotic use, chronic or medical conditions, recent surgery or transplants, and catheter or ventilator use. Many patients fall into one of these risk factor categories and can be at a higher risk for contracting CRE infections.

### **Q. Can CRE be treated?**

A. Yes, but it is very difficult to treat effectively due to its resistance to a wide variety of antibiotics. There has been limited success treating CRE infections with certain types of antibiotics to which CRE bacteria have not yet developed resistance.

### **Q. What is the best way to prevent the spread of CRE?**

A. Thorough hand washing and strict contact precautions are effective at preventing the spread of CRE in the healthcare setting. It is recommended that any patient infected or colonized with CRE be placed in a single room when possible. In addition, regular environmental cleaning with an Environmental Protection Agency (EPA)-registered disinfectant is also important. In addition, medical care providers should practice good antibiotic stewardship when prescribing antibiotics to prevent the further development of resistant strains of bacteria.

*Contact your local health department if you have additional questions about CRE*