



Carbapenem-resistant *Enterobacteriaceae* (CRE)

Definition:

CRE infections are caused by bacteria from the family *Enterobacteriaceae* (En-ter-o-bac-te-ri-a-ce-ae) that have become resistant to carbapenem antibiotics.

Signs and symptoms:

There are no unique signs or symptoms for CRE infections. Instead, watch for general signs and symptoms of infection (e.g. fever, chills, aches, nausea, vomiting, weakness). Other symptoms may be present such as a cough if infection is in the lungs, or urinary symptoms if infection is in the bladder. CRE infections can present as blood, respiratory, urinary, and/or wound infections. People may also be colonized by CRE and have no symptoms or infections.

Transmission:

These bacteria are usually spread from person to person through contact with infected or colonized people, particularly by coming into contact with wounds or stool. CRE infections are rare in children. Persons most at risk of acquiring CRE infections are those who are immunocompromised, and those hospital patients in intensive care (due to need for indwelling medical devices and increased antibiotic usage).

Diagnosis:

CRE is diagnosed in the laboratory from a culture of a body fluid such as blood or pus. CRE infections are rare in children.

Role of the School Nurse:

Prevention

- Promote proper hand washing to reduce risk of contact transmission.

Treatment Recommendations

- If an adult or child has signs or symptoms of an infection, they should be encouraged to seek medical attention.

Exclusions

- Students with any type of CRE wound infection need to be excluded from attending school/daycare until drainage from wound or skin and soft tissue is contained and maintained in a clean, dry bandage.
- Restrict a student from activities that could result in the infected area being touched by others or becoming exposed, wet, soiled or otherwise compromised.
- There is no exclusion for students colonized with CRE.

Reporting Requirements

Laboratory confirmation is necessary for reporting of this infectious disease. The Maine CDC's 24-hour disease reporting line is 1-800-821-5821.

Resources:

- Maine CDC - CRE website: <http://maine.gov/dhhs/mecdc/infectious-disease/epi/airborne/carbapenem.shtml>
- Federal CDC - CRE website: <http://www.cdc.gov/hai/organisms/cre/cre-patientgeneral.html>
- Federal CDC – CRE Toolkit: <http://www.cdc.gov/hai/organisms/cre/cre-toolkit/index.html>

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