HOW DO I KNOW IF A MULTI-DRUG RESISTANT (MDR) BACTERIA IS A CARBAPENEM-RESISTANT ENTEROBACTERIACEAE (CRE)?

*Enterobacteriaceae* are a large family of Gram-negative bacteria, which include several commonly-cultured bacteria (Think of the acronym “EKE”):

- E  Escherichia coli (E. coli)
- K  Klebsiella pneumoniae
- E  Enterobacter spp.

The word “*Enterobacteriaceae*” will not appear in a susceptibility report.

*Carbapenems* are a class of antibiotics. The names of the antibiotics in the carbapenem class that will be listed individually on the susceptibility report are listed below. As a hint, all end in “-penem”.

- D  Doripenem
- I  Imipenem
- M  Meropenem
- E  Ertapenem

The word “*Carbapenem*” will not appear in a susceptibility report.

If the letter “R” (= resistant) follows at least one of these carbapenem-antibiotics in the susceptibility report, consider the organism a CRE and place the patient on Contact Precautions.

Sample Report:

Patient Name: XXXX  Specimen Type: Urine

Hospital: YYYY  Date Collected: xx/xx/xxxx

FINAL REPORT:

>100,000 colonies Enterobacter cloacae

- Amikacin  S
- Ampicillin/sulbactam  R
- Ampicillin  R
- Cefazolin  R
- Ceftiraxone  R
- Cefepime  R
- Levofoxacin  R
- Gentamicin  S
- Ertapenem  R
- Imipenem  S
- Meropenem  R

This is an MDR (resistant to at least one antibiotic in three or more antimicrobial classes) and it is a CRE:

Ertapenem = R; Meropenem = R (resistant to ONE or more carbapenem-antibiotics)