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
Cephalosporins	**Cefazolin**	**R**
Cephalosporins	**Ceftriaxone**	**R**
Cephalosporins	**Cefepime**	**R**
Quinolones	**Levofloxacin**	**R**
Quinolones	Gentamicin	S
Carbapenems	**Ertapenem**	**R**
Carbapenems	Imipenem	S
Carbapenems	**Meropenem**	**R**
	Tetracycline	S
	Trimethoprim/Sulfa	S
	Piperacillin/Tazobactam	S

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)