Carbapenem-Resistant Organisms

Use of Test: Detection and characterization of carbapenem resistant or intermediate (MIC interpretation) Enterobacterales (CRE) and Pseudomonas aeruginosa (CRPA) for public health surveillance

Test Includes: Matrix-Assisted Laser Desorption/Ionization-Time of Flight Mass Spectrometry (MALDI-TOF MS); Carbapenemase Modified Carbapenem Inactivation Method (mCIM); Polymerase Chain Reaction (PCR)

Availability: Test is available to all clinical laboratories.

Limitations: MIC results are for surveillance purposes only and should not be used for assessment, diagnosis, or treatment of patients.

Fees: Public health investigation testing - Exempt

Causes for Rejection: Inappropriate specimen transport container; Unlabeled or mislabeled specimen; Inappropriate transport conditions; Incomplete or missing specimen submission form; Specimen leakage during transport; Inappropriate specimen for test ordered; Specimen outdated, exceeds appropriate time from collection to receipt; Quantity not sufficient to perform test; Improperly preserved specimen

Turnaround Time: 4 days

Forms Required: Antimicrobial Resistance and Susceptibility Testing Submission Form (HEA 2535)

Specimen Requirements: Submit all Enterobacterales and Pseudomonas aeruginosa (exclude patients with Cystic Fibrosis) with an MIC interpretation of intermediate or resistant to a carbapenem-class antibiotic (Doripenem, Ertapenem, Imipenem, or Meropenem). Please refer to the current “ODH Request for Bacterial Isolates and Patient Specimens” letter for additional information on other exclusion criteria.

Pure culture on agar slant or bacteriology transport swab of pure culture; isolates should be low passage to minimize loss of plasmid(s).
Shipping Requirements: Ship overnight at ambient temperature in compliance with federal regulation and local guidelines. Refer to the Shipping Resources page for more information.