

UPDATE FOR GRAM NEGATIVE BACILLUS

ANTIBIOTIC SUSCEPTIBILITY TESTING (AST)

July 21, 2022

Effective July 26, 2022, Pacific Diagnostic Laboratories (PDL) is updating the antibiotic susceptibility testing (AST) for Gram Negative Bacillus (GNB).

Why is PDL doing this update: PDL is implementing a new gram-negative bacteria AST test panel, Etest® panels, and changes to align PDL testing workflow with the newest Clinical and Laboratory Standards Institute (CLSI)-M100 standards for antimicrobial susceptibility testing.

Background: Gram-negative bacteria (GNB) are among the most significant public health problems in the world due to the high resistance to antibiotics. Two large groups, *Enterobacteriaceae* and the non-fermenters, are responsible for most clinical isolates. The PDL laboratory culture workup takes into consideration the specimen source, the GNB isolated and current standards of practice for susceptibility testing.

GRAM NEGATIVE BACILLUS ANTIBIOTIC SUSCEPTIBILITY TESTING UPDATES

1. ADDED the following antibiotics:
 - *Cefuroxime*: For blood, joint, and cerebral spinal fluid (CSF) specimens
 - *Cefpodoxime*: For urine cultures from pediatric patients (<=16 years) on request
 - *Meropenem*: For blood, joint, and CSF specimens from inpatients for hard-to-treat organisms if appropriate or on request
2. ADDED antibiotic reporting of *Ciprofloxacin*, *Cefepime*, *Tobramycin* if applicable for both inpatients and outpatients.
3. ADDED Etest® (method for determining minimum inhibitory antibiotic concentration) for the selective GNR:
 - *Burkholderia cepacia complex*, *Stenotrophomonas maltophilia*, *Aeromonas* and *Plesiomonas*
4. ADDED high-level antibiotics for Multi-Drug Resistant (MDR) organisms:
 - *AVYCAZ® (ceftazidime and avibactam)*
 - *ZERBAXA® (ceftolozane and tazobactam)*
 - *Minocycline*
5. UPDATED interpretation antibiotic breakpoints for the following bacteria/drug combinations:

ANTIBIOTIC	BACTERIA
ZOSYN®	Enterobacteriaceae
ANCEF®	Enterobacteriaceae
Fluoroquinolones	Enterobacteriaceae
Fluoroquinolones	Pseudomonas aeruginosa

6. ADDED a two-step algorithm for confirmation of Extended-spectrum beta-lactamase (ESBL) bacteria.

Questions on the updates outlined on this notice can be directed to our PDL Technical Specialist for Microbiology:

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