Corewell Health

Corewell Health Laboratory

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Laboratory Bulletin

Carbapenemase Reporting (Inpatient Only)

Effective Date: November 3, 2026

Key Update

Effective November 3, 2026, carbapenemase testing will be performed on all carbapenem-resistant isolates of *Enterobacterales* from inpatient bacterial cultures other than blood cultures and MDR screening cultures. These isolates were previously sent to the Michigan Department of Health and Human Services (MDHHS) for carbapenemase testing. The carbapenemases reported will be the same that were previously reported by MDHHS and those that are detected by the molecular blood culture identification panel: KPC, NDM, IMP, VIM, and OXA-48-like. Results will be reported simultaneously with and alongside routine antibiotic susceptibilities (see below).

Why are we making this change?

Carbapenemase-producing isolates are resistant to most beta-lactam antibiotics, including carbapenems. Offering this test in-house reduces the time until a carbapenemase is reported or ruled out, allowing for faster adjustment of treatment. Blood cultures are not included as carbapenemase testing is included in the molecular blood culture identification panel. MDR screen cultures are excluded as these are for surveillance, not to guide treatment.

Susceptibility

	Klebsiella pneumoniae group, CRE, MDR		
	CARBAPENEMASE DETECTION	MIC	
.IMP enzyme	**Negative**		
.KPC enzyme	**Negative**		
.NDM enzyme	**Positive**		
.OXA-48 enzyme	**Negative**		
.VIM enzyme	**Negative**		
Amoxicillin/clavulanate		>32/16 ug/mL	**Resistant**
Ampicillin		>16 ug/mL	**Resistant**
Ampicillin/sulbactam		>32/16 ug/mL	**Resistant**
Aztreonam			**Resistant**
Cefazolin			**Resistant**
Cefepime		>8 ug/mL	**Resistant**
Ceftazidime/Avibactam		>8 ug/mL	**Resistant**

For questions regarding testing, please contact Corewell Health Laboratory Customer Service at **800-551-0488.**

Date submitted: October 22, 2026

Submitted by: Dr. Benjamin von Bredow, Technical Director, Microbiology