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To: CPUP, HUP, PAH, PPMC, HUP, Cedar and Princeton Providers  
From: **Department of Pathology and Laboratory Medicine**  
**HUP Clinical Microbiology Laboratory, Laurel Glaser, MD, PhD, Director,**  
**Kyle Rodino, PhD, Assistant Director**  
**PAH Clinical Microbiology Laboratory, Julia Angel, MD, Director**  
**Princeton Microbiology Laboratory, Lanjing Zhang, MD, Director**

Date: December 10, 2024

Re: **Updated Gram-negative susceptibility panels**

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The Clinical Microbiology Laboratories at HUP, PAH and Princeton will implement updated Gram-negative susceptibility panels. Antibiotic guidance and panel information can be found at the Antibiotic Stewardship website. There is no change for testing at Chester County Hospital.

### **Summary of Significant Changes**

- Streamlined testing for urinary pathogens
- Cefazolin susceptibility testing for all sites of infection
- Addition of doxycycline, cefpodoxime, and cefuroxime
- Expanded testing for resistant Gram-negative rods
- Susceptible dose-dependent interpretations for cefepime and piperacillin-tazobactam to guide providers to utilize optimal dosing when applicable

**Available Panels Below:**

## ANTIBIOTIC PANELS FOR URINE ENTEROBACTERIALES

	<i>Enterobacterales</i>
Amoxicillin/Clav	Yes
Ampicillin	Yes
Cefazolin, systemic	Yes
Cefazolin, urine only	Yes
Cefepime	Yes
Cefpodoxime	Yes
Ceftriaxone	Yes
Cefuroxime	Yes
Ertapenem	ceftri. R isolates
Fosfomycin	<i>E. coli</i> only <sup>1</sup>
Levofloxacin	Yes
Meropenem	Yes
Nitrofurantoin	Yes
Tobramycin	Yes
Trimethoprim/Sulfa	Yes

1. Reflex testing if *E. coli* is resistant to other tested agents or by request

Princeton: For Enterobacterales, ceftriaxone, cefpodoxime, ceftazidime, cefepime, meropenem, and piperacillin/tazobactam may be suppressed further than specified, if susceptible to narrower agents within the same class. Results can be released upon request

## ANTIBIOTIC PANELS FOR GRAM NEGATIVE RODS

	<i>Enterobacterales</i>	<i>Salmonella</i>	<i>Shigella</i>	<i>Aeromonas</i>	<i>P. aeruginosa</i>	<i>S. maltophilia</i>	<i>B. cepacia</i> complex	<i>A. baumannii</i>	<i>Achromobacter and Alcaligenes</i>	Other Non-Enterobacterales
Ampicillin	Yes	Yes	Yes	No	No	No	No	No	No	No
Amox-Clav	Yes <sup>1,4</sup>	No	No	No	No	No	No	No	No	No
Amp-Sul	Yes <sup>1</sup>	No	No	No	No	No	No	Yes	No	No
Pip-Tazo	Yes <sup>2</sup>	No	No	No	Yes	No	No	Yes	Yes	Yes
Cefazolin	Yes	No	No	No	No	No	No	No	No	No
Cefoxitin	NR	No	No	No	No	No	No	No	No	No
Ceftazidime	Yes <sup>2</sup>	NR	NR	NR	Yes	No	Yes	Yes	Yes	Yes
Cefpodoxime	Yes <sup>4</sup>	NR	NR	NR	No	No	No	No	No	No
Ceftriaxone	Yes <sup>2</sup>	Non-Stool	Non-Stool	Non-Stool	No	No	No	Yes	No	No
Cefepime	Yes <sup>3</sup>	NR	NR	Non-Stool	Yes	No	No	Yes	No	Yes
Ertapenem	ceftri. R isolates	NR	NR	NR	No	No	No	No	No	No
Meropenem	Yes	NR	NR	Non-Stool	Yes	No	Yes	Yes	Yes	Yes
Ciprofloxacin	NR	NR	NR	NR	NR	No	No	NR	No	No
Levofloxacin	Yes	Yes	Yes	Yes	Yes	NR	Yes	Yes	Yes	Yes
Gentamicin	Yes	NR	NR	NR	No	No	No	Yes	No	Yes
Tobramycin	Yes	NR	NR	NR	Yes	No	No	Yes	No	Yes
Amikacin	Yes	NR	NR	NR	NR	No	No	Yes	No	Yes
Minocycline	NR	No	No	No	No	NR	Yes	mero. R isolates	No	No
Doxycycline	Yes <sup>4</sup>	NR	NR	Yes	No	No	No	No	No	No
SXT	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
Azithromycin	No	<i>S. typhi</i>	Yes	No	No	No	No	No	No	No

1. Suppressed if I or R to 3rd or 4th generation cephalosporins. Tested on request.

2. Not reported on ESBLs or high risk ampC producers from sterile body fluids.

3. Not reported on ESBLs from sterile body fluids

4. Not reported on sterile body fluids

Princeton: For Enterobacterales, ceftriaxone, cefpodoxime, ceftazidime, cefepime, meropenem, and piperacillin/tazobactam may be suppressed further than specified, if susceptible to narrower agents within the same class. Results can be released upon request

NR: Performed, but not reported

**EXPANDED ANTIBIOTIC PANELS FOR GRAM-NEGATIVE RODS**

**Carbapenem Resistant Enterobacterales Sterile Body Fluids**

	Ceftaz-Avi	Mero-Vabor	Cefiderocol	Aztreonam Avibactam synergy <sup>1</sup>
<i>KPC CRE</i>	Yes	Yes	Yes	No
<i>OXA CRE</i>	Yes	No	Yes	No
<i>NDM, IMP, VIM CRE</i>	No	No	Yes	Yes

Note: Non-sterile sites tested by infectious diseases request

<sup>1</sup> Send-out test

**Other Gram-negative rods Sterile Body Fluids**

	Imi-Relebactam	Ceftol-Tazo	Ceftaz-Avi	Aztreonam	Cefiderocol	sulbactam durlobactam
Beta-lactam Resistant <i>P. aeruginosa</i>	Yes	Yes	Yes	By request	By request	No
Carbapenem Resistant <i>Acinetobacter baumannii</i>	No	No	No	No	Yes	Yes
<i>Stenotrophomonas</i>	No	No	No	No	By request	No

Note: Non-sterile sites tested by infectious diseases request

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