

New Antibiotic Sensitivity Panel (Phoenix) Limitations & Solutions

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Limitations of the new gram-negative AST panel for organism–antibiotic Combinations no reported

- ***Serratia marcescens*, TMP-SMX not on/reliable from the panel**
 - Solution: TMP-SMX will be set up simultaneously for all *S. marcescens*
- ***Proteus mirabilis*, meropenem not on/reliable from the panel**
 - Solution: If cefepime = SDD/R, set up/release meropenem Etest (results available next day)
- ***Proteus vulgaris/penneri*, ampicillin-sulbactam not on/reliable from the panel**
 - Solution: A comments to call the lab if this agent is clinically indicated will be added each time these organisms are isolated

All *Serratia marcescens* will get Trimethoprim-Sulfamethoxazole upfront

Example of *S. marcescens* from blood

Culture, Blood Order: 926307054

Status: Final result Next appt: None
 Test Result Released: No (inaccessible in My Duke Health)
 Specimen Information: Percutaneous, venous; Blood

Culture Blood Lab MICRO

Serratia marcescens !

Gram Stain Lab DRAH

Gram negative rods

Susceptibility

	Serratia marcescens MIC	KB SUSCEPTIBILITY (LO)
Amikacin	<=8 mcg/mL	S
Amoxicillin + Clavulanic Acid	>16/8 mcg/mL	R
Ampicillin	16 mcg/mL	R
Ampicillin + Sulbactam	16/8 mcg/mL	R
Cefazolin	>16 mcg/mL	R
Cefepime	<=0.5 mcg/mL	S
Ceftriaxone	<=1 mcg/mL	S
Ciprofloxacin	<=0.25 mcg/mL	S
Gentamicin	<=2 mcg/mL	S
Levofloxacin	<=0.25 mcg/mL	S
Piperacillin/Tazobactam	<=4/4 mcg/mL	S
Tobramycin	<=2 mcg/mL	S
Trimethoprim + Sulfamethoxazole		S

Example of *S. marcescens* from urine

Culture, Urine, Restricted Patient Population Order: 925486012

Status: Final result Next appt: 05/11/2026 at 09:30 AM in Lab (LAB-CANCER CENTER) Dx: Urinary tract infection symptoms
 Test Result Released: Yes (not seen)
 Specimen Information: Clean Catch (Voided mid-stream sample); Urine

Culture Urine 10,000-50,000 CFU/mL Serratia marcescens ! Lab MICRO

Susceptibility

	Serratia marcescens MIC	KB SUSCEPTIBILITY (LO)
Amikacin	<=8 mcg/mL	S
Amoxicillin + Clavulanic Acid	>16/8 mcg/mL	R
Ampicillin	>16 mcg/mL	R
Ampicillin + Sulbactam	16/8 mcg/mL	R
Cefazolin	>16 mcg/mL	R
Cefepime	<=0.5 mcg/mL	S
Ceftriaxone	<=1 mcg/mL	S
Cefuroxime (Oral)	>16 mcg/mL	R
Cefuroxime (Parenteral)	>16 mcg/mL	R
Ciprofloxacin	<=0.25 mcg/mL	S
Gentamicin	<=2 mcg/mL	S
Levofloxacin	<=0.25 mcg/mL	S
Nitrofurantoin	>64 mcg/mL	R
Piperacillin/Tazobactam	<=4/4 mcg/mL	S
Tobramycin	<=2 mcg/mL	S
Trimethoprim + Sulfamethoxazole		S

All Proteus mirabilis will get mero Etest if Cefepime SDD/R or from CSF

Example of *P. mirabilis* from kidney stone

! Culture, Aerobes Only, Other w Gram Stain Order: 92687

Status: Preliminary result Next appt: None Dx: Nephrolithiasis

Test Result Released: No

Specimen Information: Calculi/Stone; Other

Culture Other, aerobes only

Rare Growth Proteus mirabilis !

Additional susceptibility results are pending.

1+ Yeast !

Results will be available the following date from the panel results since this is set up reflexively

Gram Stain Report
No organisms seen
No polymorphonuclear leukocytes seen
No organisms seen

Resulting Agency: MICRO

Susceptibility

	Proteus mirabilis MIC (Preliminary)	
Amikacin	<=8 mcg/mL	S
Amoxicillin + Clavulanic Acid	8/4 mcg/mL	S
Ampicillin	>16 mcg/mL	R
Ampicillin + Sulbactam	>16/8 mcg/mL	R
Cefazolin	>16 mcg/mL	R
Cefepime	16 mcg/mL	R
Ceftriaxone	>32 mcg/mL	R
Ciprofloxacin	>2 mcg/mL	R
Ertapenem	<=0.25 mcg/mL	S
Gentamicin	<=2 mcg/mL	S
Levofloxacin	>4 mcg/mL	R
Piperacillin/Tazobactam	<=2/4 mcg/mL	
Tobramycin	<=2 mcg/mL	S
Trimethoprim + Sulfamethoxazole	<=0.5/9.5 m...	S

! Culture, Aerobes Only, Other w Gram Stain Order: 926877

Status: Final result Next appt: None Dx: Nephrolithiasis

Test Result Released: Yes (not seen)

Specimen Information: Calculi/Stone; Other

Culture Other, aerobes only

Rare Growth Proteus mirabilis !

1+ Yeast !

Gram Stain Report
No organisms seen
No polymorphonuclear leukocytes seen
No organisms seen

Resulting Agency: MICRO

Susceptibility

	Proteus mirabilis MIC	
Amikacin	<=8 mcg/mL	S
Amoxicillin + Clavulanic Acid	8/4 mcg/mL	S
Ampicillin	>16 mcg/mL	R
Ampicillin + Sulbactam	>16/8 mcg/mL	R
Cefazolin	>16 mcg/mL	R
Cefepime	16 mcg/mL	R
Ceftriaxone	>32 mcg/mL	R
Ciprofloxacin	>2 mcg/mL	R
Ertapenem	<=0.25 mcg/mL	S
Gentamicin	<=2 mcg/mL	S
Levofloxacin	>4 mcg/mL	R
Meropenem		0.25 mcg/mL S
Piperacillin/Tazobactam	<=2/4 mcg/mL	
Tobramycin	<=2 mcg/mL	S
Trimethoprim + Sulfamethoxazole	<=0.5/9.5 m...	S

All Proteus mirabilis will get mero Etest if Cefepime SDD/R or from CSF

Example of *P. mirabilis* from urine

Specimen Information: Clean Catch (Voided mid-stream sample); Urine

Culture Urine

>=100,000 CFU/mL Proteus mirabilis !

Mero Etest results will be available the following date from the panel results since this is set up reflexively

Resulting Agency: MICRO

Susceptibility

	Proteus mirabilis MIC	
Amikacin	<=8 mcg/mL	S
Amoxicillin + Clavulanic Acid	<=4/2 mcg/mL	S
Ampicillin	>16 mcg/mL	R
Ampicillin + Sulbactam	16/8 mcg/mL	I
Cefazolin	>16 mcg/mL	R
Cefazolin (Cystitis Only)	>=32 mcg/mL	R ¹
Cefepime	>16 mcg/mL	R
Ceftriaxone	>32 mcg/mL	R
Cefuroxime (Oral)	>16 mcg/mL	R
Cefuroxime (Parenteral)	>16 mcg/mL	R
Ciprofloxacin	>2 mcg/mL	R
Ertapenem	<=0.25 mcg/mL	S ²
Gentamicin	>8 mcg/mL	R
Levofloxacin	>4 mcg/mL	R
Meropenem	0.12 mcg/mL	S
Nitrofurantoin	>64 mcg/mL	R
Piperacillin/Tazobactam	<=2/4 mcg/mL	SEE COMMENT ³
Tetracycline	>8 mcg/mL	R
Tobramycin	>8 mcg/mL	R
Trimethoprim + Sulfamethoxazole	>2/38 mcg/mL	R

Proteus vulgaris or Proteus penneri

Specimen Information: Clean Catch (Voided mid-stream sample); Urine

Culture Urine

>=100,000 CFU/mL Proteus vulgaris !

Ampicillin-sulbactam susceptibility testing is not routinely performed for Proteus vulgaris or Proteus penneri and may be requested by calling the Microbiology Laboratory within 2 days if clinically indicated.

This comment will auto populate each time one of these organisms is isolated

Resulting Agency: MICRO

Susceptibility

	Proteus vulgaris MIC	
Amikacin	<=8 mcg/mL	S
Amoxicillin + Clavulanic Acid	8/4 mcg/mL	S
Ampicillin	>16 mcg/mL	R
Cefazolin	>16 mcg/mL	R
Cefepime	<=0.5 mcg/mL	S
Ceftriaxone	16 mcg/mL	R
Cefuroxime (Oral)	>16 mcg/mL	R
Cefuroxime (Parenteral)	>16 mcg/mL	R
Ciprofloxacin	<=0.25 mcg/mL	S
Gentamicin	4 mcg/mL	I
Levofloxacin	<=0.25 mcg/mL	S
Nitrofurantoin	64 mcg/mL	R
Piperacillin/Tazobactam	<=2/4 mcg/mL	S
Tetracycline	>8 mcg/mL	R
Tobramycin	8 mcg/mL	R
Trimethoprim + Sulfamethoxazole	<=0.5/9.5 m...	S