

## 2021 Northwest Region Facility-Wide Antibioqram

Organisms	Isolates	Amikacin	Ampicillin	Ampicillin/Sulbactam	Aztreonam	Cefazolin	Cefepime	Ceftazidime	Ceftriaxone	Ciprofloxacin	Clindamycin	Gentamicin	Levofloxacin	Linezolid	Meropenem	Oxacillin	Penicillin	Piperacillin/Tazobactam	Sulfamethoxazole/Trimethoprim	Tetracycline	Tobramycin	Vancomycin
Citrobacter	95	100	-	75	83	36	96	85	77	94	-	98	95	-	100	-	-	98	91	-	98	-
Enterobacter	129	100	-	37	80	-	98	75	72	99	-	100	99	-	100	-	-	82	95	-	100	-
Enterococcus	326	-	94	-	-	-	-	-	-	-	-	-	-	97	-	-	-	-	-	-	-	98
Escherichia coli	1310	99	54	62	86	80	87	85	85	74	-	90	75	-	99	-	-	97	76	-	90	-
Klebsiella	378	100	-	80	91	78	92	92	90	93	-	94	-	-	99	-	-	97	89	-	95	-
Proteus	192	100	70	85	93	79	95	95	93	65	-	82	71	-	100	-	-	99	78	-	84	-
Pseudomonas aeruginosa	235	94	-	-	77	-	84	87	-	83	-	80	84	-	93	-	-	93	-	-	98	-
Serratia	31	100	-	-	93	-	100	93	87	96	-	90	96	-	100	-	-	93	100	-	90	-
Staphylococcus aureus	437	-	-	60	-	60	-	-	60	58	67	97	59	100	-	60	-	-	95	87	-	99
Methicillin-resistant Staphylococcus aureus	173	-	-	-	-	-	-	-	-	-	56	96	-	100	-	-	-	-	90	74	-	100

- 30 isolate threshold
- Not all isolates tested against every antibiotic listed
- Enterococcus isolates are not routinely speciated; the majority are ampicillin susceptible
- 167 (12.7%) of *E. coli* isolates were extended-spectrum  $\beta$ -lactamase (ESBL) producers

## 2021 Northwest Region Urinary Antibioqram

Organisms	Isolates	Amikacin	Ampicillin	Ampicillin/Subactam	Aztreonam	Cefazolin	Cefepime	Ceftazidime	Ceftriaxone	Ciprofloxacin	Clindamycin	Gentamicin	Linezolid	Meropenem	Nitrofurantoin	Oxacillin	Piperacillin/Tazobactam	Sulfamethoxazole/Trimethoprim	Tetracycline	Tobramycin	Vancomycin
Citrobacter	75	100	-	73	85	34	97	85	78	94	-	98	-	100	81	-	98	90	-	98	-
Enterobacter	74	100	-	43	77	71	98	71	70	98	-	100	-	100	29	-	79	93	-	100	-
Escherichia coli	1129	99	54	62	86	81	87	86	86	75	-	90	-	99	96	-	97	75	-	91	-
Klebsiella	295	100	-	83	91	80	92	92	90	92	-	95	-	99	50	-	97	90	-	95	-
Proteus	139	100	71	86	95	96	96	96	94	64	-	83	-	100	-	-	100	76	-	86	-
Pseudomonas aeruginosa	121	94	-	-	79	-	89	92	-	79	-	81	-	96	-	-	95	-	-	98	-
Staphylococcus aureus	50	-	-	46	-	46	-	-	44	34	68	-	100	-	100	46	-	94	76	-	100

- 30 isolate threshold
- Not all isolates tested against every antibiotic listed

## 2021 Northwest Region ED Urinary Antibiogram

Organisms	Isolates	Amikacin	Ampicillin	Ampicillin/Sulbactam	Aztreonam	Cefazolin	Cefepime	Ceftazidime	Ceftriaxone	Ciprofloxacin	Clindamycin	Gentamicin	Linezolid	Meropenem	Nitrofurantoin	Piperacillin/Tazobactam	Sulfamethoxazole/Trimethoprim	Tetracycline	Tobramycin	Vancomycin
Citrobacter	60	100	-	71	84	31	98	85	76	96	-	100	-	100	78	98	93	-	100	-
Enterobacter	56	100	-	46	80	5	100	75	75	98	-	100	-	100	26	80	92	-	100	-
Escherichia coli	913	99	54	63	87	82	88	86	87	75	-	90	-	99	95	97	75	-	91	-
Klebsiella	229	100	-	83	91	81	92	92	90	92	-	96	-	99	48	97	89	-	95	-
Proteus	110	100	72	88	95	83	96	96	94	67	-	86	-	100	-	100	79	-	89	-
Pseudomonas aeruginosa	94	93	-	-	80	-	90	91	-	78	-	79	-	95	-	94	-	-	97	-

- 30 isolate threshold
- Not all isolates tested against every antibiotic listed

## 2021 Northwest Region Blood Antibigram

Organisms	Isolates	Amikacin	Ampicillin	Ampicillin/Sulbactam	Aztreonam	Cefazolin	Cefepime	Ceftazidime	Ceftriaxone	Ciprofloxacin	Clindamycin	Gentamicin	Linezolid	Meropenem	Oxacillin	Piperacillin/Tazobactam	Sulfamethoxazole/Trimethoprim	Tetracycline	Tobramycin	Vancomycin
Enterobacter	16	100	-	37	62	-	100	56	56	100	-	100	-	100	-	68	100	-	100	-
Escherichia coli	168	99	52	58	84	78	85	84	84	74	-	89	-	100	-	98	74	-	89	-
Klebsiella	44	100	-	90	92	86	97	97	93	97	-	100	-	100	-	95	95	-	100	-
Proteus	29	100	65	86	96	79	96	96	96	55	-	79	-	100	-	100	72	-	79	-
Pseudomonas aeruginosa	22	95	-	-	71	-	95	95	-	86	-	95	-	95	-	95	-	-	100	-
Staphylococcus aureus	110	-	-	59	-	59	-	-	59	-	60	98	100	-	59	-	97	90	-	100
Methicillin-resistant Staphylococcus aureus	45	-	-	-	-	-	-	-	-	22	48	97	100	-	-	-	93	78	-	100

- 30 isolate threshold; organisms with < 30 isolates are for informational purposes only
- Not all isolates tested against every antibiotic listed

## 2021 Northwest Region Combination Antibiogram

Combination Antibiogram for <i>Pseudomonas aeruginosa</i>	
Piperacillin/tazobactam alone	93
Piperacillin/tazobactam + tobramycin	99
Piperacillin/tazobactam + ciprofloxacin	98
Meropenem alone	93
Meropenem + tobramycin	100
Meropenem + ciprofloxacin	98
Cefepime alone	84
Cefepime + tobramycin	99
Cefepime + ciprofloxacin	96
Aztreonam alone	77
Aztreonam + tobramycin	99
Aztreonam + ciprofloxacin	92

### Combination Antibiogram Guidance:

- A combination antibiogram uses local susceptibility data to identify the combination of antimicrobial agents that is most likely to provide effective initial empiric therapy
- Most patients do not require empiric combination Gram-negative therapy. The decision to use combination therapy should be based on patient severity of illness, the likelihood of isolating resistant Gram-negative pathogens, and potential for additional drug toxicity
- De-escalation of therapy to the most appropriate single agent is recommended for the majority of patients as soon as the susceptibility profile is known
- This combination antibiogram suggests the additional coverage conferred by a fluoroquinolone is *less* than that of an aminoglycoside