

# Antimicrobial Susceptibility Report: Midcentral isolates 1 Jan – 31 Dec 2022

≥ 90% susceptible;    70-89% susceptible;    < 70% susceptible;    Number = proportion susceptible (S/I);    R = Resistant

## Gram negative isolates

Organism (number tested)	Amoxicillin	Amoxi-clav (uncomplicated UTI)	Amoxi-clav (other)	Cephalexin (uncomplicated UTI)	Cefuroxime	Ceftriaxone	Ceftazidime	Piperacillin-tazobactam	Meropenem	Gentamicin	Tobramycin	Trimethoprim (uncomplicated UTI)	Cotrimoxazole	Ciprofloxacin	Nitrofurantoin (uncomplicated UTI)
<i>Escherichia coli</i> – urinary isolates (5497)	-	87% <sup>a</sup>	51%	94% <sup>a</sup>	-	-	-	-	-	-	-	75% <sup>a</sup>	-	90%	98% <sup>a</sup>
<i>Escherichia coli</i> – blood culture isolates (121)	-	-	51%	-	88%	90%	-	94%	100%	94%	91%	-	73%	88%	-
ESBL <i>Escherichia coli</i> (233) <sup>e</sup>	R	-	-	R	R	R	R	-	100%	68%	55%	27% <sup>a</sup>	31%	21%	89% <sup>a</sup>
<i>Klebsiella pneumoniae</i> – urinary isolates (433)	R	96% <sup>a</sup>	81%	96% <sup>a</sup>	-	-	-	-	-	-	-	84% <sup>a</sup>	-	92%	87% <sup>a</sup>
<i>Klebsiella pneumoniae</i> – other sites (33)	R	-	88%	-	- <sup>d</sup>	94%	-	94%	100%	97%	97%	-	91%	94%	-
<i>Proteus mirabilis</i> – urinary isolates (284)	-	99% <sup>a</sup>	95%	97% <sup>a</sup>	-	-	-	-	-	-	-	71% <sup>a</sup>	-	96%	R
<i>Proteus mirabilis</i> - other sites (30)	-	-	94%	-	- <sup>d</sup>	100%	-	100%	100%	97%	97%	-	76%	93%	R
<i>E. cloacae, K. aerogenes, C. freundii, S. marcescens &amp; M. morganii</i> (375)	R	R	R	R	R	84% <sup>b</sup>	87% <sup>b</sup>	85%	100%	96%	92%	91% <sup>a</sup>	92%	97%	- <sup>f</sup>
<i>Pseudomonas aeruginosa</i> (736)	R	R	R	R	R	R	93%	93%	98%	-	98%	R	R	89%	R
<i>Haemophilus influenzae</i> (300) <sup>c</sup>	66%	-	72%	-	-	100%	-	-	-	-	-	81%	-	-	

<sup>a</sup> Susceptibility results apply to uncomplicated lower urinary tract infection only; <sup>b</sup>*E. cloacae, K. aerogenes, S. marcescens, M. morganii*, and *C. freundii* may develop resistance during prolonged treatment with third generation cephalosporins. <sup>c</sup> 99% *Haemophilus influenzae* were susceptible to tetracycline/doxycycline.<sup>d</sup> Insufficient numbers tested; <sup>e</sup> 92% and 90% of isolates susceptible (uncomplicated UTI) to Fosfomycin and Mecillinam respectively; <sup>f</sup> *Serratia* and *Morganella* species intrinsically resistant to nitrofurantoin.

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## Gram positive isolates

Organism (number tested)	Penicillin	Amoxicillin	Flucloxacillin <sup>a</sup>	Ceftriaxone	Erythromycin	Clindamycin	Cotrimoxazole	Doxycycline	Fusidic acid	Vancomycin	Nitrofurantoin (uncomplicated UTI)	Ciprofloxacin (uncomplicated UTI)
<i>Staphylococcus aureus</i> – all (4505)	-	-	92% <sup>a</sup>	-	91%	93%	98%	98%	88%	100%	-	-
Methicillin-resistant <i>Staphylococcus aureus</i> (367)	R	R	R <sup>a</sup>	R	81%	91%	99%	96%	45%	100%	-	-
<i>Staphylococcus lugdunensis</i> (144)	-	-	72% <sup>a</sup>	-	94%	94%	99%	95%	-	100%	-	-
<i>Staphylococcus saprophyticus</i> (167)	-	-	98% <sup>a</sup>	-	-	-	93%	-	-	100%	100% <sup>b</sup>	100% <sup>b</sup>
Other Coagulase Negative Staphylococci (674)	-	-	50% <sup>a</sup>	-	50%	77%	71%	80%	-	100%	-	-
<i>Streptococcus pyogenes</i> & other β-haem Strep	100%	-	-	-	-	-	-	-	-	100%	-	-
<i>Streptococcus pneumoniae</i> (117)	-	91%	-	100%	87%	-	66%	88%	-	100%	-	-
<i>Enterococcus faecalis</i> (433)	-	97%	R	R	R	R	R	R	-	100%	99% <sup>b</sup>	88% <sup>b</sup>
<i>Enterococcus faecium</i> (88)	-	0%	R	R	R	R	R	R	-	100%	50% <sup>b</sup>	2% <sup>b</sup>

<sup>a</sup> *Staphylococcus* flucloxacillin result predicts susceptibility to amoxicillin-clavulanate, cephalexin, cephazolin, and ceftriaxone; <sup>b</sup> Susceptibility results apply to uncomplicated lower urinary tract infection only.