

2019 Antibiotic Susceptibility Profiles SDHB Otago/Southland Community isolates

Gram negative bacteria 2018 (% sensitive)	Number tested	Amoxicillin	Amoxicillin/Clavulanate	Amoxicillin/Clavulanate (cystitis only)	Cefalexin (cystitis)	Tetracycline/doxycycline	Nitrofurantoin (cystitis)	Ciprofloxacin*	Trimethoprim (cystitis)	Cotrimoxazole*	Fosfomycin (cystitis)	Mecillinam (cystitis)
<i>E. coli</i> (all)	5533	57%	67%	86%	95%		99%		76%			
<i>E. coli</i> (urine)	5432	58%	67%	86%	95%		99%		76%			
<i>E. coli</i> ESBL (urines)*	147	R		60%	R		94%	46%	27%	33%	93%	89%
<i>Proteus mirabilis</i>	217	96%	99%	99%	97%		R	100%	87%			
<i>Salmonella</i> spp*	137	86%						100%		98%		
<i>Pseudomonas aeruginosa</i>	382							83%				
<i>Haemophilus influenzae</i>	370	61%	73%			98%		99%		71%		

Gram positive bacteria 2018 (% sensitive)	Number tested	Amoxicillin	Penicillin G (sensitive and intermediate)	Flucloxacillin	Erythromycin	Clindamycin	Nitrofurantoin (cystitis only)	Trimethoprim (cystitis only)	Cotrimoxazole	Fusidic acid	Tetracycline/Doxycycline
<i>Staphylococcus aureus</i> including MRSA	3385		7%	95%	88%	89%			98%	91%	98%
<i>Staphylococcus aureus</i> MRSA only	115		R	R	69%	79%			91%	78%	91%
<i>Staphylococcus lugdunensis</i> *	141		54%	99%	96%	97%			99%	96%	99%
<i>Staphylococcus saprophyticus</i>	243						100%	96%			
<i>Streptococcus pneumoniae</i>	137		84%**		76%	81%			85%		80%
<i>Enterococcus</i> spp (incl. hospital isolates)	889	85%					95%				

Notes*:

- **Meaning of "I" on laboratory reports.** A microorganism is categorised as "Susceptible, Increased exposure*" when there is a high likelihood of therapeutic success because exposure to the agent is increased (dose, frequency, mode of administration, and concentration at site of infection eg urine)
- The most common infection produced by ESBL-producing organisms is cystitis, but antibiotic treatment options are very limited. Nitrofurantoin or fosfomycin may be options for treatment. Serious infection and invasive disease often require treatment with a carbapenem (meropenem or ertapenem)
- **Ciprofloxacin** and **cotrimoxazole** susceptibility results are not available for community *Escherichia coli* from urines, as these are only tested on multi-resistant isolates or when pyelonephritis is suspected. However, for *hospital* urinary isolates (which are all tested), 90% are susceptible to ciprofloxacin, and 78% to cotrimoxazole

Note**:

- Note that 16% of *S. pneumoniae* are resistant to penicillin.
- Uncomplicated pneumonia due to *Streptococcus pneumoniae* may usually be treated with high-dose oral amoxicillin (adult dose 1g tds), even if there is reduced susceptibility to penicillin (this is now reported as "susceptible, increased exposure". More severe pneumonia (CURB-65 score ≥ 2) may require IV antibiotics.