

2014 ANTIBIOTIC SUSCEPTIBILITY PROFILES



	<i>Staphylococcus aureus</i>	<i>Streptococcus pyogenes</i> (Gp A Haemolytic Strep.)	<i>Streptococcus pneumoniae</i>	<i>Moraxella catarrhalis</i>	<i>Haemophilus influenzae</i>	<i>Pseudomonas aeruginosa</i>	URINE					
							<i>E.coli</i>	<i>Klebsiella</i> species	<i>Proteus mirabilis</i>	<i>Enterobacter / Serratia</i> spp.	<i>Enterococcus</i> species	<i>Staphylococcus saprophyticus</i>
Number of Isolates	3928		168		522	233	3098	551	268	143	377	142
PENICILLIN		S	94 _c	R	R	R						
FLUCLOXACILLIN	90	S		R	R	R						
AMOXYCILLIN		S	94 _d	R	71	R	52	R	91	R	94	V _f
AMOX / CLAV	90 _a	S	94 _d	S	93	R	91	97	100	R	94	S _f
CEFACLOR	90 _a	S		S		R	97	95	100	R	R	S _f
COTRIMOXAZOLE	99		72	S	71	R	81 _g	88 _g	84 _g	89 _g	R	92 _g
ERYTHROMYCIN	87	V	82		R _e	R						
CLINDAMYCIN	87 _b	V	82 _b			R						
TETRACYCLINE			81	S	98	R						
GENTAMICIN						94	S	S	S	S		
CIPROFLOXACIN						95	88 _h	94 _h	98 _h	91 _h		
NITROFURANTOIN						R	99	85	R	50	98	100
TRIMETHOPRIM						R	81	88	84	89	R	92

The percentage of organisms susceptible to an antibiotic is recorded (with the sample size in the first row of the table).
(e.g. *Staphylococcus aureus* vs. flucloxacillin 90% susceptible, n=3928)

S = Not specifically tested, but known to be ordinarily susceptible.

R = Organism resistant or antibiotic inappropriate V = Variable susceptibility.

- S. aureus* susceptible to flucloxacillin can be considered susceptible to amoxicillin-clavulanate and cefaclor. Methicillin resistant *Staphylococcus aureus* (i.e. MRSA) are resistant to all beta-lactam antibiotics (penicillins, cephalosporins, carbapenems).
- Clindamycin susceptibility is extrapolated from the erythromycin result.
- S. pneumoniae* susceptible to penicillin can be considered susceptible to amoxicillin, amoxicillin-clavulanate, cefaclor, cefuroxime, cefotaxime, ceftriaxone, cefpodoxime, imipenem and meropenem. Confirmation of penicillin resistance (reduced susceptibility) in *S. pneumoniae* requires MIC testing. (Please note this figure includes both penicillin susceptible and intermediately susceptible isolates). *S. pneumoniae* isolates intermediately susceptible to penicillin are resistant to cefaclor. In 2014 our *S. pneumoniae* isolates demonstrated the following pattern of susceptibility to penicillin: 80% = Susceptible, 14% = Intermediate, 6% = Resistant. However, of the resistant strains only a few had a penicillin MIC > 4mg/L, and penicillins (amoxicillin) are effective against strains with MIC <= 4mg/L, unless they are causing meningitis.
- Amoxicillin and amoxicillin-clavulanate susceptibility is extrapolated from the penicillin result.
- Erythromycin is not recommended for treatment of infections thought to be due to *H. influenzae*.
- S. saprophyticus* causing urinary tract infections will usually respond to amoxicillin-clavulanate and cephalosporins. (Up to 50% of isolates are resistant to amoxicillin).
- Cotrimoxazole susceptibility is extrapolated from the trimethoprim result.
- Derived from nalidixic acid result.

MOST LIKELY BACTERIAL PATHOGENS IN COMMON CONDITIONS

1. RESPIRATORY INFECTIONS

- Pharyngitis - *Streptococcus pyogenes* (Gp A Haemolytic Strep.)
- Otitis Media/Sinusitis
 - *Streptococcus pneumoniae*
 - *Haemophilus influenzae*
 - *Moraxella catarrhalis*
- Acute exacerbation of Chronic Bronchitis
 - *Streptococcus pneumoniae*
 - *Haemophilus influenzae*
 - *Moraxella catarrhalis*

- Community Acquired Pneumonia
 - *Streptococcus pneumoniae*
 - *Haemophilus influenzae*
 - *Mycoplasma pneumoniae*
 - *Chlamydia pneumoniae*
 - *Staphylococcus aureus*
 - (*Legionella* sp)

2. URINARY TRACT INFECTION

- *E.coli*
- *Proteus mirabilis*
- Other Coliforms (e.g. *Klebsiella*, *Enterobacter*).
- *Enterococcus* sp.
- *Staphylococcus saprophyticus*.

3. IMPETIGO / CELLULITIS

- *Staphylococcus aureus*
- *Streptococcus pyogenes*