

Organism susceptibility to antibacterials: macrolides, quinolones, rifamycins

The following table provides a general guide to clinical antimicrobial susceptibilities. The table is intended to assist empirical selection of antimicrobials in the absence of laboratory confirmation of susceptibility; it is not a substitute for management advice from clinical microbiologists or infectious diseases specialists. Consider these data in conjunction with the clinical condition of the patient, site of infection, knowledge of local susceptibility patterns (which may vary) and evidence-based guidelines. Use the narrowest spectrum antibiotic that is effective to limit the development of antimicrobial resistance. When in doubt seek specialist advice.

The designation of susceptibility used in the table is 75% (an organism is deemed susceptible if at least 3 out of 4 cultures tested are susceptible to that antibiotic).

Organism	Macrolides				Quinolones			Rifamycins	
	azithromycin	clarithromycin	erythromycin	roxithromycin	ciprofloxacin	moxifloxacin	norfloxacin ¹	rifampicin	rifabutin
Gram-negative									
<i>Acinetobacter</i> spp.									
<i>Aeromonas</i> spp.									
<i>Burkholderia cepacia</i>									
<i>Burkholderia pseudomallei</i>									
<i>Campylobacter jejuni</i> and <i>coli</i>				2	2	2			
<i>Citrobacter freundii</i>									
<i>Enterobacter</i> spp.									
<i>Escherichia coli</i>									
<i>Haemophilus influenzae</i>									
<i>Klebsiella</i> spp.									
<i>Moraxella catarrhalis</i>									
<i>Morganella</i> spp.									
<i>Neisseria gonorrhoeae</i>					3	3			
<i>Neisseria meningitidis</i>								4	
<i>Pasteurella multocida</i>									
<i>Proteus mirabilis</i>									
<i>Proteus vulgaris</i>									
<i>Providencia</i> spp.									
<i>Pseudomonas aeruginosa</i>									
<i>Salmonella</i> spp.					3	3	3		
<i>Serratia</i> spp.									
<i>Shigella</i> spp.									
<i>Stenotrophomonas maltophilia</i>									
<i>Yersinia</i> spp.									
¹ urinary or GI isolates only ² likely susceptible but currently validated laboratory breakpoints not available ³ use only if susceptibility confirmed ⁴ used for prophylaxis only ⁵ limited clinical data ⁶ active in vitro, resistance may develop during treatment ⁷ can be used for UTI if susceptible ⁸ in combination with other agents									
Legend									
	susceptible								
v	variable								
	resistant								
	no data available or antibacterial not recommended								

Organism	Macrolides				Quinolones			Rifamycins	
	azithromycin	clarithromycin	erythromycin	roxithromycin	ciprofloxacin	moxifloxacin	norfloxacin ¹	rifampicin	rifabutin
Gram-positive									
<i>Corynebacterium jeikeium</i>									
<i>Enterococcus faecalis</i>					1	5			
<i>Enterococcus faecium</i>					1	5	v		
<i>Listeria</i> spp.									
<i>Staphylococcus aureus</i>					6,7	6	6		
<i>Staphylococcus aureus</i> (MRSA)					6,7	6	6		
<i>Staphylococcus epidermidis</i>		v	v						
<i>Staphylococcus lugdunensis</i>									
<i>Staphylococcus saprophyticus</i>									
<i>Streptococcus</i> - group A, B, C, G									
<i>Streptococcus anginosus</i>									
<i>Streptococcus pneumoniae</i>									
Viridans streptococcus group									
Anaerobes									
<i>Actinomyces</i>									
<i>Bacteroides fragilis</i> group									
<i>Clostridioides difficile</i>									
<i>Clostridium perfringens</i>									
<i>Cutibacterium (Propionibacterium) acnes</i>									
<i>Fusobacteria</i> spp.									
<i>Peptostreptococcus</i> spp.									
<i>Prevotella melaninogenica</i>									
Miscellaneous									
<i>Chlamydomphila, Chlamydia</i> spp.									
<i>Legionella</i> spp.								8	8
<i>Mycobacterium avium</i> complex								8	8
<i>Mycobacterium tuberculosis</i>								8	8
<i>Mycoplasma pneumoniae</i>									
<i>Nocardia</i> spp.					v	v			
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