

Antibiotic Utilization Highlights

Methicillin-Resistant Staphylococcus aureus (MRSA)	
HA-MRSA	CA-MRSA
Vancomycin ¹	Sulfamethoxazole/Trimethoprim
Daptomycin ²	Doxycycline
Linezolid ³	Minocycline
Tedizolid	Clindamycin
Ceftaroline	Linezolid
Telavancin	Tedizolid
Dalbavancin	Moxifloxacin ⁴
Oritavancin	Delafloxacin ⁶
Tigecycline ²	
Teicoplanin	
Quinupristin/Dalfopristin	
Chloramphenicol	
Rifampin ⁵	
Delafloxacin ⁶	

- ¹ PO form only for C. diff
- ² Not for pneumo
- ³ 1:1 IV/PO conversion
- ⁴ Technically, but probably not
- ⁵ Not monotherapy
- ⁶ Indicated for ABSSSI and CABP
- ⁷ Only in select serious cases, only labeled for complicated UTI
- ⁸ Only P & E (and Enterobacter cloacae and Klebsiella pneumoniae)
- ⁹ QT prolongation
- ¹⁰ E. faecium only
- ¹¹ Only P & E (and Proteus mirabilis and Enterobacter cloacae and Klebsiella pneumoniae)
- ¹² Indicated for CABP, novel class (pleuromutilin)
- ¹³ Indicated for complicated UTI and complicated intra-abdominal infections

Enterococcus	
Non-VRE	VRE
Penicillin	Linezolid ³
Quinupristin/Dalfopristin ¹⁰	Tedizolid
Ampicillin/Sulbactam	Daptomycin ²
Piperacillin/Tazobactam	Oritavancin
Vancomycin	Tigecycline ²
	Quinupristin/Dalfopristin ¹⁰
	Teicoplanin
	Telavancin

Hydrophilic	Lipophilic	NOT Renally-Adjusted	
		Agents	
Beta-lactams	Macrolides	Ceftriaxone	Erythromycin
Aminoglycosides	Fluoroquinolones	Nafcillin/Oxacillin	Azithromycin
Daptomycin	Tetracyclines	Rifampin	Clindamycin
Vancomycin	Linezolid	Doxycycline	Moxifloxacin
Hydrophilic – Distributes in blood	Lipophilic – Distributes to tissues		

Time-Dependent		Concentration-Dependent	
Beta-lactams (PCNs, Ceph, Carbapenem, Aztreonam)		Fluoroquinolones (Ciprofloxacin, Moxifloxacin)	
Vancomycin		Aminoglycosides (Gentamicin, Amikacin)	

Renal Adjustments:

Time-Dependent – Lower dose; Same dosing interval

Concentration-Dependent – Same dose; Extended dosing interval

Distribution of Select Agents				
Blood	Bone	Lung	CSF	Urine
Beta-lactams	Tetracyclines	Macrolides	Bactrim	Beta-lactams
Aminoglycosides	Fluoroquinolones	Fluoroquinolones	Fluoroquinolones	Fluoroquinolones (not Moxi)
Daptomycin	Rifampin	Linezolid	Metronidazole	Aminoglycosides
Vancomycin	Macrolides	Beta-lactams	Beta-lactams	Daptomycin

Gram Negative Rods <i>Serratia, Pseudomonas, Acinetobacter, Citrobacter, E. coli</i>	
Agent	Pseudomonas Coverage
Ticarcillin/Clavulanate	✓
Piperacillin/Tazobactam	✓
Ceftriaxone	
Ceftazidime	✓
Ceftazidime/Avibactam ⁷	✓ (Possibly also MDR)
Cefepime	✓
Ceftolozane/Tazobactam ⁷	✓ (Possibly also MDR)
Cefiderocol ^{7,11}	✓
Carbapenems	✓ (Except ertapenem)
Aztreonam	✓
Ciprofloxacin	✓
Delafloxacin ^{6,8}	✓
Levofloxacin	✓
Aminoglycosides	✓
Colistin	✓
Tigecycline	
Cilastatin/Imipenem/Relebactam ¹³	✓

Atypicals (Chlamydia, Mycoplasma, Legionella)	
Agent	Notes
Lefamulin ¹²	Also MSSA and S. pneumoniae
Macrolides ⁹	
Moxifloxacin	CI in pregnancy
Mino/Doxycycline	CI in pregnancy

Anaerobes	
Agent	Notes
Metronidazole ³	Also used in C. diff, STIs, GI parasites
Clindamycin	No gm(-) coverage, highest assoc. w/ C. diff
Carbapenems	
Moxifloxacin ^{3,9}	Not for UTIs
Tigecycline	
Piperacillin/Tazobactam	
Ticarcillin/Clavulanate	
Ampicillin/Sulbactam	
Amoxicillin/Clavulanate	

