

Common Antimicrobial Coverage of DxWound Organisms

DxWound Test Results [#] Aerobic, gram (+) bacteria	Potential Organism	Common Antibiotic Coverage [#]
Staphylococcus aureus		
No <i>ermA</i> or <i>mecA</i>	Methicillin-Susceptible <i>Staphylococcus aureus</i> (MSSA)	Oral: Cephalexin, Dicloxacillin, any MRSA active agent* IV: Cefazolin, Nafcillin, Oxacillin, any MRSA active agent*
+ <i>ermA</i>	Macrolide-Lincosamide-Streptogramin B (MLS _B) Resistant MSSA	Oral: Cephalexin, Dicloxacillin, TMP-SMX* IV: Cefazolin, Nafcillin, Oxacillin, Vancomycin*
+ <i>mecA</i>	Methicillin-Resistant <i>Staphylococcus aureus</i> (MRSA)	Oral: Clindamycin, Doxycycline, Linezolid, Minocycline, TMP-SMX IV: Daptomycin, Linezolid, Vancomycin
+ <i>mecA</i> and <i>ermA</i>	MLS _B MRSA	Oral: Doxycycline, Linezolid, Minocycline, TMP-SMX IV: Daptomycin, Linezolid, Vancomycin
Staphylococcus lugdunensis		
No <i>ermA</i> or <i>mecA</i>	Methicillin-Susceptible Coagulase-Negative Staphylococci (MS-CoNS)	Oral: Cephalexin, Dicloxacillin, any MRSA active agent* IV: Cefazolin, Nafcillin, Oxacillin, any MRSA active agent*
+ <i>ermA</i>	MLS _B MS-CoNS	Oral: Cephalexin, Dicloxacillin, TMP-SMX* IV: Cefazolin, Nafcillin, Oxacillin, Vancomycin
+ <i>mecA</i>	Methicillin-Resistant Coagulase-Negative Staphylococci (MR-CoNS)	Oral: Clindamycin, Doxycycline, Linezolid, Minocycline, TMP-SMX IV: Daptomycin, Linezolid, Vancomycin
+ <i>mecA</i> and <i>ermA</i>	MLS _B MR-CoNS	Oral: Doxycycline, Linezolid, Minocycline, TMP-SMX IV: Daptomycin, Linezolid, Vancomycin
Streptococcus pyogenes or Streptococcus agalactiae		
No <i>ermA</i> or <i>ermB</i>	Group A or Group B <i>Streptococcus</i>	Oral: Amoxicillin, Amox-Clav, Cephalexin, Clindamycin* IV: Cefazolin, Ceftriaxone, Clindamycin*, Penicillin G
Streptococcus pyogenes or Streptococcus agalactiae		
+ <i>ermA</i> or <i>ermB</i>	Macrolide-Lincosamide-Streptogramin B (MLS _B) Resistant Group A or Group B <i>Streptococcus</i>	Oral: Amoxicillin, Amox-Clav, Cephalexin, Linezolid* IV: Cefazolin, Ceftriaxone, Penicillin G, Vancomycin*
Enterococcus faecalis		
+/- <i>ermB</i> but <i>vanA</i> and <i>vanB</i> negative		Oral: Amoxicillin, Amox-Clav, Levofloxacin* IV: Ampicillin, Amp-Sulb, Penicillin G, Vancomycin*
+ <i>vanA</i> or <i>vanB</i>	Vancomycin-Resistant <i>Enterococcus</i> (VRE)	Oral: Amoxicillin, Linezolid IV: Ampicillin, Daptomycin, Linezolid, Telavancin
Enterococcus faecium		
+/- <i>ermB</i> but <i>vanA</i> and <i>vanB</i> negative		Oral: Linezolid IV: Daptomycin, Linezolid, Telavancin
+ <i>vanA</i> or <i>vanB</i>	VRE	Oral: Linezolid IV: Daptomycin, Linezolid
<i>Mycobacterium abscessus</i>**		Oral: Clarithromycin IV: Amikacin +/- Cefoxitin
<i>Mycobacterium chelonae</i>**		Oral: Azithromycin, Clarithromycin, Linezolid IV: Azithromycin, Imipenem, Linezolid

* Possible alternative if patient has true penicillin allergy

** Consider consultation with ID specialist

When multiple organisms are present, interpret antibiotic resistant gene results in light of all identified organisms. Genes may also be found in organisms that aren't part of DxWound results.

Continued on next page.

DxWound Test Results [#] Aerobic, gram (-) bacteria	Common Antibiotic Coverage		
	Consider consultation with ID specialist if Extended-Spectrum B-lactamase (ESBL) or Carbapenem-Resistant Enterobacteriaceae (CRE) genes present		
	If no resistance genes are present	If CTX-M or SHV are present (ESBL)	If IMP, KPC, NDM, OXA-48, SME or VIM are present (CRE)
<i>Acinetobacter baumannii</i>	Oral: Minocycline IV: Amp-Sulb (sulbactam has potential activity), Imipenem, Meropenem, Minocycline	Oral: Minocycline IV: Amp-Sulb (sulbactam has potential activity), Imipenem, Meropenem, Minocycline	Oral: no common options IV: Colistin, Minocycline, (+/- meropenem in combination), Polymixin B, Tigecycline
<i>Pseudomonas aeruginosa</i>	Oral: Ciprofloxacin, Levofloxacin IV: Cefepime, Ceftazidime, Imipenem, Meropenem, Pip-Tazo	Oral: no common options IV: Ceft-Tazo (Zerbaxa®), Colistin, Imipenem, Meropenem, Polymixin B	Oral: no common options IV: Ceft-Avi (Avycaz®), Colistin, Polymixin B, Tigecycline (+/- meropenem in combination)
<i>Citrobacter freundii</i>	Oral: Ciprofloxacin, Levofloxacin, TMP-SMX IV: Cefepime, Ciprofloxacin, Levofloxacin, Pip-Tazo	Oral: no common options IV: Ertapenem, Imipenem, Meropenem	Oral: no common options IV: Colistin, Polymixin B, Tigecycline (+/- meropenem in combination)
<i>Enterobacter aerogenes or cloacae</i>	Oral: Ciprofloxacin, Levofloxacin, TMP-SMX IV: Cefepime, Ciprofloxacin, Levofloxacin, Pip-Tazo	Oral: no common options IV: Ertapenem, Imipenem, Meropenem	Oral: no common options IV: Colistin, Polymixin B, Tigecycline (+/- meropenem in combination)
<i>Escherichia coli</i>	Oral: Cephalexin, Ciprofloxacin, Levofloxacin, TMP-SMX IV: Cefazolin, Ceftriaxone, Fluoroquinolones	Oral: no common options IV: Ertapenem, Imipenem, Meropenem	Oral: no common options IV: Colistin, Polymixin B, Tigecycline (+/- meropenem in combination)
<i>Proteus mirabilis/vulgaris</i>	Oral: Amox-Clav, Cefuroxime, Ciprofloxacin, Levofloxacin IV: Ceftriaxone, Ciprofloxacin, Levofloxacin, Pip-Tazo	Oral: no common options IV: Ertapenem, Imipenem, Meropenem	Oral: no common options IV: Colistin, Polymixin B, Tigecycline (+/- meropenem in combination)

DxWound Test Results Anaerobic bacteria	Common Antibiotic Coverage
<i>Clostridium perfringens or septicum</i>	Oral: Clindamycin + Penicillin, Metronidazole IV: Clindamycin + Penicillin G, Imipenem, Meropenem, Metronidazole
<i>Bacteroides fragilis</i>	Oral: Amox-Clav, Metronidazole IV: Ertapenem, Imipenem, Meropenem, Metronidazole, Pip-Tazo
<i>Prevotella intermedia or oralis</i>	Oral: Amox-Clav, Metronidazole IV: Ertapenem, Imipenem, Meropenem, Metronidazole, Pip-Tazo
Fungi	Common Antifungal Coverage
<i>Aspergillus flavus or fumigatus or niger</i>	Oral: Isavuconazole, Voriconazole IV: Amphotericin B, Isavuconazole, Voriconazole
<i>Candida albicans</i>	Oral: Fluconazole IV: Caspofungin, Fluconazole, Micafungin
<i>Candida glabrata</i>	Oral: Fluconazole*, Voriconazole* IV: Amphotericin B, Caspofungin, Micafungin
<i>Candida parapsilosis</i>	Oral: Fluconazole IV: Fluconazole
<i>Candida tropicalis</i>	Oral: Fluconazole IV: Caspofungin, Fluconazole, Micafungin

* If susceptibility confirmed

When multiple organisms are present, interpret antibiotic resistant gene results in light of all identified organisms. Genes may also be found in organisms that aren't part of DxWound results.

Disclaimer: This is not an all-inclusive antimicrobial treatment table and does not take into account local resistance patterns or all mechanisms of antimicrobial resistance. Uncommonly used antimicrobial coverage for specific organisms were omitted from this table, but may be appropriate in some patients. The DxWound Genetic Analysis Report does not make recommendations for treatment. All tests should be evaluated utilizing professional judgment in the clinical context of the patient. The test results should be used with other clinical and diagnostic findings for patient case management.

References: Please visit cogendx.com/resources for a complete bibliography.



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