



TABLE 4A – ANTIBACTERIAL ACTIVITY SPECTRA

The data provided are intended to serve as a general guide to antibacterial usefulness based on treatment guidelines and recommendations, in vitro activity, predominant patterns of susceptibility or resistance and/or demonstrated clinical effectiveness. **Variability in resistance patterns due to regional differences or as a consequent of clinical setting (e.g., community-onset vs. ICU-acquired infection) should be taken into account when using this table because activities of certain agents can differ significantly from what is shown in the table**, which are by necessity based on aggregate information. We have revised and expanded the color / symbol key to provide a more descriptive categorization of the table data.

++ = Recommended: Agent is a first line therapy; reliably active in vitro, clinically effective, guideline recommended, recommended as a first-line agent or acceptable alternative agent in the Sanford Guide

+ = Active: Agent is a potential alternative agent (active in vitro, possesses class activity comparable to known effective agents or a therapeutically interchangeable agents and hence likely to be clinically effective, but second line due to overly broad spectrum, toxicity, limited clinical experience, or paucity of direct evidence of effectiveness)

*** = Variable:** Variable activity such that the agent, although clinically effective in some settings or types of infections is not reliably effective in others, or should be used in combination with another agent, and/or its efficacy is limited by resistance which has been associated with treatment failure

0 = Not recommended: Agent is a poor alternative to other agents because resistance is likely to be present or occur, due to poor drug penetration to site of infection or an unfavorable toxicity profile, or limited, anecdotal or no clinical data to support effectiveness

	Penicillins		Carbapenems		Fluoroquinolone		Parenteral Cephalosporins	
	Cefiderocol	Ceftriaxone	Ceftazidime	Ceftriaxone	Cefotaxime	Cefuroxime	Cefoperazone	Cefotetan
Aerobic gram-pos cocci								
E. faecalis (S)	++	0	0	0	0	0	0	0
E. faecium (S)	+	0	0	0	0	0	0	0
E. faecalis (VRE)	+	0	0	0	0	0	0	0
E. faecium (VRE)	+	0	0	0	0	0	0	0
S. aureus MSSA	+	+	++	++	++	+	+	+
S. aureus HA-MRSA	0	0	0	0	0	0	0	0
S. aureus CA-MRSA	0	0	0	0	0	0	0	0
Staph coag-neg (S)	+	+	++	++	++	+	+	+
Staph coag-neg (R)	0	0	0	0	0	0	0	0
S. epidermidis (R)	0	0	0	0	0	0	0	0
S. epidermidis (S)	+	+	++	++	++	+	+	+
S. lugdunensis	+	+	++	++	++	+	+	+
S. saprophyticus	+	+	+	+	+	+	+	+
S. anginosus grp	++	+	+	+	+	+	+	+
Strep. pyogenes (A)	++	+	+	+	+	+	+	+
Strep. agalactiae (B)	++	+	+	+	+	+	+	+

TABLE 4A (2)

TABLE 4A (3)

TABLE 4A (4)

	Cefiderocol	Ceftio-Tazo	Ceftobiprole	Ceftaroline	Ceftaz-Avibac	Cefepime	Ceftazidime	Ceftixime	Cefotaxime	Cefuroxime	Cefotetan	Cefazolin	Gatifloxacin	Gemifloxacin	Pralifloxacin	Moxifloxacin	Levoftroxacin	Oftroxacin	Deltaroxacin	Ciprofloxacin	Aztreonam	Mero-Vabor	Megopenem	Imp-cla-rele	Imp-cla-dlastatin	Ertapenem	Doripenem	Carbapenems	Fluoroquinolone	Parenteral Cephalosporins	Cephalosporins
Aerobic GNB - Non-enteric (continued)																															
<i>V. vulnificus</i>	0	0	0	0	0	0	0	0	0	0	0	0	+	0	+	0	0	+	0	0	0	+	+	+	+	+	0	0	0		
<i>Y. pestis</i>	0	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0	0	+	0	0	0	0	0	0	0	0	0	0			
Aerobic GNB non-fermenter																															
<i>A. baumannii</i>	0	0	0	0	0	0	0	0	0	0	0	0	±	±	±	±	0	±	0	±	±	0	±	0	0	0	0	0			
<i>B. cepacia</i>	0	0	0	0	0	0	0	0	0	0	0	0	±	±	±	0	0	0	0	0	0	0	0	0	0	0	0	0			
<i>P. aeruginosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	+	+	+	+	0	+	0	0	0	0	0	0	0	0	0				
<i>S. maltophilia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+			
Aerobic - cell wall-deficient																															
<i>C. trachomatis</i>	0	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0	0	++	++	+	0	0	+	+	0	0	0	0			
<i>Chlamydophila sp.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+	0	+	+	0	+	+	0	0	0				
<i>M. pneumoniae</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+	++	0	+	+	0	0	0	0	0				
<i>U. urealyticum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+	0	+	+	0	+	0	0	0	0				
Anaerobic GNB																															
<i>B. fragilis</i>	0	0	0	0	0	0	0	0	0	0	0	0	++	++	+	+	0	0	+	0	0	+	0	0	+	0	0				
<i>F. necrophorum</i>	±	±	0	0	0	0	0	0	0	0	0	0	±	±	+	+	0	+	+	0	+	+	0	+	0	0	0				
<i>P. melaninogenica</i>	±	±	0	0	0	0	0	0	0	0	0	0	±	±	+	+	0	0	0	0	0	+	0	0	0	0	0				
Anaerobic gram-positive																															
<i>Actinomyces sp.</i>	++	++	0	0	0	0	0	0	0	0	0	0	+	+	+	+	+	0	0	0	0	0	0	0	0	0	0				
<i>Clostridium sp.</i>	++	+	0	0	0	0	0	0	0	0	0	0	+	+	+	+	+	0	0	+	0	0	+	0	0	0	0				
<i>P. acnes</i>	++	+	0	0	0	0	0	0	0	0	0	0	+	+	+	+	+	0	±	0	±	0	+	0	+	+	0				
<i>Peptostreptococci</i>	++	++	0	0	0	0	0	0	0	0	0	0	+	+	+	+	+	0	0	+	+	0	0	+	+	+	0				

TABLE 4A (5)

TABLE 4A (6)

	Colistin	Poly	Polymyxin B	Ox-lid	Tedizolid	Linezolid	Dabavancin	Oritavancin	Telavancin	Teicoplanin	Glyco/Lipo		Other
Aerobic GNB - Enteric													
<i>Aeromonas</i> sp.	0	0	0	0	0	0	0	+	+	+	0	0	0
<i>C. jejuni</i>	0	0	0	0	0	0	0	+	+	0	0	++	0
<i>C. freundii</i>	0	0	0	0	0	0	0	+	+	0	0	+	0
<i>C. koseri</i>	0	0	0	0	0	0	0	+	+	0	0	+	0
<i>E. aerogenes</i>	0	0	0	0	0	0	0	+	+	0	0	+	0
<i>E. cloacae</i>	0	0	0	0	0	0	0	+	+	0	0	+	0
<i>E. coli</i> (S)	±	±	±	+	+	+	+	0	+	0	0	+	0
<i>E. coli</i> , Klebs ESBL	0	0	0	0	0	0	0	±	±	++	0	+	0
<i>E. coli</i> , Klebs KPC	0	0	0	0	0	0	0	±	±	++	0	+	0
<i>E. coli</i> , Klebs MBL	0	0	0	0	0	0	0	±	±	++	0	+	0
Enterics CRE, NOS	0	0	0	0	0	0	0	+	+	0	0	+	0
<i>K. oxytoca</i>	±	±	±	+	+	+	+	0	+	0	0	+	0
<i>K. pneumoniae</i> (S)	±	±	±	+	+	+	+	0	+	0	0	+	0
<i>Morganella</i> sp.	0	0	0	0	0	0	0	+	+	0	0	0	0
<i>P. mirabilis</i>	±	+	+	+	+	+	+	0	0	0	0	0	0
<i>P. vulgaris</i>	0	0	0	0	+	+	0	+	+	0	0	0	0
Providencia sp.	0	0	0	0	+	+	+	0	0	0	0	0	0
<i>Salmonella</i> sp.	0	0	0	0	+	+	+	0	0	0	0	0	0
<i>Serratia</i> sp.	0	0	0	0	+	0	0	+	+	0	0	+	0
<i>Shigella</i> sp.	0	0	0	0	+	+	+	0	+	0	0	+	0
<i>Y. enterocolitica</i>	0	0	0	0	+	+	0	0	0	0	0	+	0
Aerobic GNB - Non-enteric													
<i>Bartonella</i> sp.	0	0	0	0	0	0	0	++	0	0	0	0	0
<i>B. pertussis</i>	0	0	0	0	0	0	0	0	++	++	0	0	0
<i>B. burgdorferi</i>	0	0	0	0	++	0	0	0	0	0	0	0	0
<i>Brucella</i> sp.	0	0	0	0	0	0	0	+	0	0	0	0	0

TABLE 4A (7)

TABLE 4A (8)

TABLE 4B - ANTI-FUNGAL ACTIVITY SPECTRA

	Antifungal Drugs						
	Micafungin	Caspofungin	Ahdulafungin	Isavuconazonium sulfate	Possconazole	Voriconazole	Fluconazole
Fungi							
<i>Aspergillus fumigatus</i>	0	+	+	++	+	++	++
<i>Aspergillus terreus</i>	0	+	+	++	+	++	++
<i>Aspergillus flavus</i>	0	+	+	++	+	++	++
<i>Candida albicans</i>	++	+	+	+	+	++	++
<i>Candida auris</i>	0	+	+	+	+	+	+
<i>Candida dubliniensis</i>	+	+	+	+	+	+	+
<i>Candida glabrata</i>	+	+	+	+	+	+	+
<i>Candida guilliermondii</i>	++	++	++	++	+	++	++
<i>Candida krusei</i>	0	+	+	+	+	+	+
<i>Candida lusitaniæ</i>	++	+	+	+	+	++	++
<i>Candida parapsilosis</i>	++	+	+	+	+	+	++
<i>Candida tropicalis</i>	++	+	+	+	+	++	++
<i>Cryptococcus sp.</i>	+	+	+	+	0	0	0
<i>Dermatophyte molds</i>	0	++	++	+	+	+	+
<i>Fusarium sp.</i>	0	+	+	+	0	0	+
<i>Talaromyces marneffei</i>	0	++	++	0	0	0	+
<i>Macromycetes</i>	0	0	0	+	+	+	++
<i>Scedo ephesperum</i>	0	0	0	+	+	+	+
<i>Scedo (Lomentospora) prolificans</i>	0	0	0	0	0	0	0
<i>Trichosporon sp.</i>	+	+	+	0	0	+	+
Dimorphic Fungi							
<i>Blastomycetes</i>	+	++	++	+	+	++	++
<i>Coccidioides</i>	+	++	++	+	+	++	++
<i>Histoplasma</i>	+	++	++	0	0	0	0
<i>Sporothrix</i>	+	++	++	0	0	0	0

TABLE 4C - ANTI VIRAL ACTIVITY SPECTRA

	Viruses											
	Varicella-Zoster	Monkeypox	Smallpox	JC Virus / PML	Influenza A	Influenza D	HPV	Hepatitis C	Cytomegalovirus	SARS CoV-2	Adenovirus	
Coronavirus												
Rendesvijir	N/A	N/A	++	MA	MA	MA	MA	MA	MA	MA	MA	MA
Hepatitis B												
Adefovir	NA	NA	NA	NA	+	NA	NA	NA	NA	NA	NA	NA
Emtricitabine	NA	NA	NA	NA	+	NA	NA	NA	NA	NA	NA	NA
Entecavir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Lamivudine	NA	NA	NA	NA	+	NA	NA	NA	NA	NA	NA	NA
Telbivudine	NA	NA	NA	NA	+	NA	NA	NA	NA	NA	NA	NA
Tenofovir (TDF and TAF)	NA	NA	NA	NA	++	NA	+	MA	MA	MA	MA	MA
Hepatitis C												
Dactatasvir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Dasabuvir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Ebsavir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Glecaprevir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Interferon alfa, peg	NA	NA	NA	NA	++	+	NA	NA	NA	NA	NA	NA
Ledipasvir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Ombitasvir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Pantoprevir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Pibrentasvir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Ribavirin	NA	+	NA	NA	0	+	NA	NA	NA	NA	+	NA
Simprevir	NA	NA	NA	NA	+	NA	NA	NA	NA	NA	NA	NA
Sofosbuvir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Velpatasvir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Voxlaprevir	NA	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA
Influenza												
Amantadine	NA	NA	NA	NA	NA	NA	NA	0	0	NA	NA	NA
Baloxavir	NA	NA	NA	NA	NA	NA	NA	+	+	NA	NA	NA
Osefamivir	NA	NA	NA	NA	NA	NA	NA	++	++	NA	NA	NA
Peramivir	NA	NA	NA	NA	NA	NA	NA	+	+	NA	NA	NA
Rimantadine	NA	NA	NA	NA	NA	NA	NA	0	0	NA	NA	NA
Zanamivir	NA	NA	NA	NA	NA	NA	NA	++	++	NA	NA	NA
Herpes, CMV, VZV, misc.												
Acyclovir	NA	NA	NA	NA	0	NA	NA	++	NA	NA	NA	NA
Cidofovir	NA	+	+	NA	++	NA	NA	+	+	+	+	NA
Famciclovir	NA	NA	NA	0	NA	NA	++	NA	NA	NA	NA	+
Foscarnet	NA	NA	NA	++	NA	NA	+	NA	NA	NA	NA	+
Ganciclovir	1	NA	NA	++	NA	NA	+	NA	NA	NA	NA	+
Letermovir	NA	NA	NA	++	NA	NA	NA	NA	NA	NA	NA	NA
Valacyclovir	NA	NA	NA	0	NA	NA	++	NA	NA	NA	NA	++
Valganciclovir	1	NA	NA	++	NA	NA	+	NA	NA	NA	NA	+
Pox Viruses												
Recovimac	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	+	+
Tropical Agents												
Imiquimod	NA	NA	NA	NA	NA	NA	NA	++	NA	NA	NA	NA
Penicillavir	NA	NA	NA	0	NA	NA	+	NA	NA	NA	0	NA
Podoflox	NA	NA	NA	NA	NA	NA	++	NA	NA	NA	NA	NA
Streptokinase	NA	NA	NA	NA	NA	NA	+	NA	NA	NA	NA	NA
Trifluridine	NA	NA	NA	NA	NA	NA	+	NA	NA	NA	NA	NA