

ICU Antimicrobial Reference Tables

Downloadable reference - verify local susceptibility, formulation, dosing and current guideline context

These tables are educational starting frameworks. They do not replace the local ICU antibiogram, source control, microbiology/ID advice, organ-function dosing or patient-specific contraindications.

Site Matters - Tissue Penetration Matrix

Site	Favored / useful exposure	Limitation / poor fit
Central Nervous System / Meninges	Ceftriaxone (meningitis dosing); Meropenem (meningitis dosing); Ampicillin (Listeria coverage); Acyclovir (HSV encephalitis); Fluconazole (good CSF exposure)	Echinocandins - poor CSF penetration; Daptomycin - not a CNS workhorse; Ertapenem - not a meningitis drug
Lungs / Alveolar Lining Fluid	Linezolid - high ELF exposure; Levofloxacin; Cefepime / ceftazidime; Meropenem; Ceftolozane-tazobactam; Ceftazidime-avibactam (Avycaz)	Daptomycin - inactivated by pulmonary surfactant; Aminoglycosides as monotherapy - poor ELF exposure; Tigecycline is not a preferred bacteremia drug despite tissue penetration
Urinary Tract / Kidney	Ceftriaxone / cefepime when susceptible; TMP-SMX; Aminoglycosides; Ertapenem; Cefepime-enmetazobactam (Exblifep) - FDA cUTI indication; Plazomicin - FDA cUTI indication	Echinocandins - poor urinary concentrations; Tigecycline / eravacycline - not preferred for UTI; Polymyxin B - poor urinary exposure compared with colistin/CMS
Bloodstream / Endovascular	Cefazolin for MSSA; Vancomycin (AUC-guided) for MRSA; Daptomycin for susceptible MRSA/VRE bacteremia; Carbapenem or active novel beta-lactam for susceptible invasive Gram-negative disease	Tigecycline - low serum exposure; Eravacycline - not a bacteremia drug; Oral fosfomycin - not for bacteremia
Intra-abdominal / Deep Tissue	Piperacillin-tazobactam; Meropenem / ertapenem; Ceftriaxone + metronidazole; Eravacycline (cIAI label); Tigecycline in selected susceptible resistant infections	Aminoglycoside monotherapy; Vancomycin alone for polymicrobial intra-abdominal sepsis; Agents without anaerobic coverage when anaerobes are part of the syndrome
Bone / Joint / Prosthetic Material	Cefazolin for MSSA; Vancomycin for MRSA; Daptomycin or linezolid in selected resistant Gram-positive infection; Rifampin may be used only as part of selected staphylococcal prosthetic-material regimens	Rifampin monotherapy - rapid resistance; Short-course therapy without source control in established hardware infection
Eye / Vitreous	Systemic fluoroquinolones have useful ocular penetration in selected syndromes; Endophthalmitis usually requires intravitreal therapy directed by ophthalmology	Relying on systemic antibiotics alone for acute postoperative endophthalmitis
Mold / Invasive Fungal Disease	Voriconazole - invasive aspergillosis; Isavuconazole - aspergillosis / mucormycosis; Liposomal amphotericin B - mucormycosis and broad mold salvage; Posaconazole - prophylaxis and selected salvage/step-down	Fluconazole for Aspergillus or Mucorales; Echinocandin monotherapy for mucormycosis