

EMPIRIC ANTIMICROBIAL THERAPY - 2026 PROVIDER POCKET GUIDE

Adult quick reference | Use local antibiogram, **cultures**, renal/hepatic function, allergy history and **source control**

CNS			
Indication	Preferred empiric therapy	Alternative / broaden when indicated	Duration / key note
Bacterial meningitis	Ceftriaxone 2 g IV q12h + vancomycin . Add ampicillin 2 g IV q4h if Listeria risk (>50 y, pregnancy, immunocompromise).	Severe beta-lactam allergy : ID-guided regimen.	Treat promptly after cultures ; pathogen-directed duration .
HSV encephalitis	Acyclovir 10 mg/kg IV q8h (renal adjust).	-	Usually 14-21 d.
Cryptococcal meningitis	Liposomal amphotericin B 3-4 mg/kg IV daily + flucytosine 25 mg/kg PO QID.	Specialist-guided alternatives if intolerance/unavailable.	Induction generally 2 wk; monitor ICP, renal function, electrolytes, CBC.
Brain abscess - unknown source	Vancomycin + ceftriaxone 2 g IV q12h + metronidazole 500 mg q8h.	Post-neurosurgical/healthcare-associated: use antipseudomonal GN coverage.	Urgent source control /neurosurgery; usually 4-8 wk.

RESPIRATORY			
Indication	Preferred empiric therapy	Alternative / broaden when indicated	Duration / key note
CAP (Community-Acquired Pneumonia) - nonsevere inpatient	Ceftriaxone 1-2 g IV q24h + azithromycin 500 mg q24h.	QT concern: ceftriaxone + doxycycline 100 mg q12h.	Nonsevere CAP: minimum 3 d in selected clinically stable patients; individualize.
CAP (Community-Acquired Pneumonia) - severe/ICU	Option 1: ceftriaxone 1-2 g IV q24h OR ampicillin-sulbactam 1.5-3 g IV q6h + azithromycin 500 mg IV/PO q24h. Option 2: ceftriaxone 1-2 g IV q24h OR ampicillin-sulbactam 1.5-3 g IV q6h + levofloxacin 750 mg IV/PO q24h OR moxifloxacin 400 mg IV/PO q24h. Severe non-influenza CAP: consider systemic corticosteroids. Hydrocortisone 200 mg/day IV is one well-studied regimen; optimal agent/dose/duration are not established.	Beta-lactam + respiratory FQ if macrolide unsuitable. Add MRSA/Pseudomonas coverage only with validated risk/local data. Do NOT routinely use CAP steroids for influenza pneumonia.	Steroids are for severe CAP, not nonsevere CAP. Severe CAP: >=5 d after clinical stability; longer for complications/specific pathogens. ATS 2025 supports systemic corticosteroids in severe CAP; regimen/duration per ICU/pharmacy protocol.
COVID-19 - outpatient, high risk	Nirmatrelvir/ritonavir (Paxlovid®) PO BID x5 d; start <=5 d from symptom onset.	Remdesivir (Veklury®) IV x3 d; start <=7 d. Molnupiravir (Lagevrio®) x5 d only when preferred options are not appropriate/available.	Check Paxlovid drug interactions and renal/hepatic dosing/contraindications.
COVID-19 - hospitalized, no O2 requirement	Supportive care; consider antiviral therapy when indicated by risk/timing.	Do NOT routinely use dexamethasone solely for COVID-19 without hypoxemia requiring supplemental O2.	Treat another steroid-responsive condition if independently indicated.
COVID-19 - hospitalized, requires supplemental O2	Dexamethasone 6 mg PO/IV daily up to 10 d or until discharge; consider remdesivir (Veklury®) when appropriate.	Progressive severe /critical disease: consider baricitinib or tocilizumab with corticosteroid in appropriate patients per protocol.	Remdesivir commonly 200 mg IV day 1, then 100 mg IV daily; typically 5 d in hospitalized patients.
Influenza (Flu) - hospitalized/severe/progressive	Oseltamivir (Tamiflu®) 75 mg PO/enteral BID x5 d (renal adjust); start ASAP.	Do not wait for PCR in priority patients. Treat hospitalized patients even when >48 h after symptom onset; longer course may be considered for prolonged/ severe illness.	Do NOT routinely use corticosteroids for influenza itself unless another indication exists.
Influenza (Flu) - uncomplicated outpatient	If treatment indicated and <=48 h: oseltamivir (Tamiflu®) x5 d OR baloxavir (Xofluza®) single dose.	Zanamivir (Relenza®) inhaled or peramivir (Rapivab®) IV are options in selected patients. Avoid zanamivir in underlying airway disease.	Baloxavir is not routinely recommended for hospitalized influenza.
Aspiration pneumonitis	Supportive care; no routine antibiotics.	-	Treat only if bacterial pneumonia develops.
Aspiration pneumonia	Treat as CAP (Community-Acquired Pneumonia) or HAP (Hospital-Acquired Pneumonia) by setting; ampicillin-sulbactam reasonable for community onset.	Broaden for HAP (Hospital-Acquired Pneumonia)/MDR risk.	No routine extra anaerobic coverage unless abscess/empyema/necrosis.
HAP (Hospital-Acquired Pneumonia) - low MRSA/MDR risk	Antipseudomonal beta-lactam guided by local antibiogram: cefepime 2 g IV q8h OR piperacillin-tazobactam 4.5 g IV q6h OR meropenem 1 g IV q8h when broader ESBL/MDR coverage is warranted.	Severe immediate beta-lactam allergy : aztreonam 2 g IV q8h (plus appropriate gram-positive/MRSA coverage when indicated); otherwise select an active beta-lactam per allergy history and local susceptibility.	Do not routinely add vancomycin ; usually 7 d.
HAP/VAP (Hospital-Acquired Pneumonia / Ventilator-Associated Pneumonia) - MRSA/high mortality risk	Antipseudomonal beta-lactam: cefepime 2 g IV q8h OR piperacillin-tazobactam 4.5 g IV q6h OR meropenem 1 g IV q8h; add vancomycin OR linezolid 600 mg IV/PO q12h when MRSA coverage is indicated.	Two antipseudomonal classes only when resistance/high mortality risk warrants.	Usually 7 d; de-escalate .
PCP	TMP-SMX : TMP 15-20 mg/kg/day divided q6-8h.	Clinda+primaquine, atovaquone, or pentamidine by severity.	21 d. Steroids only if PaO2 <70 RA or A-a >=35.

BLOODSTREAM / ENDOCARDITIS			
Indication	Preferred empiric therapy	Alternative / broaden when indicated	Duration / key note
MSSA endocarditis	Naftillin/oxacillin 2 g IV q4h OR cefazolin 2 g IV q8h.	True severe beta-lactam intolerance: ID-guided.	Usually 6 wk; no routine aminoglycoside.
MRSA endocarditis	Vancomycin per pharmacy monitoring protocol OR high-dose daptomycin strategy per ID.	-	Usually 6 wk.
VGS / <i>S. gallolyticus</i> IE	Ceftriaxone 2 g IV q24h OR penicillin/ampicillin if susceptible.	Vancomycin for true severe beta-lactam allergy .	Gentamicin only selected guideline-defined cases; usually 4 wk uncomplicated NVE.
<i>E. faecalis</i> IE	Ampicillin 2 g IV q4h + ceftriaxone 2 g IV q12h.	Ampicillin + gentamicin only selected susceptible/renal-appropriate cases.	Usually 6 wk; check HLAR/susceptibility.
VRE bacteremia/IE	Linezolid 600 mg q12h OR high-dose daptomycin strategy per ID/ASP.	Consider combination only selected persistent/high-inoculum disease.	Source control ; monitor CBC/CPK.
CLABSI - empiric	Vancomycin + cefepime (renal adjusted/local antibiogram).	Add antifungal only if substantial candidemia risk.	Remove catheter when indicated; repeat cultures .

GI / GU / STI			
Indication	Preferred empiric therapy	Alternative / broaden when indicated	Duration / key note
C. difficile - initial nonfulminant	INSTITUTIONAL FIRST LINE: vancomycin 125 mg PO q6h x10 d.	Fidaxomicin 200 mg PO BID x10 d is guideline- preferred for an initial nonfulminant episode when feasible.	Stop inciting antibiotics when possible.
C. difficile - fulminant	Vancomycin 500 mg PO/NG q6h + metronidazole 500 mg IV q8h.	Add rectal vancomycin if ileus; early surgery/ID/GI.	Reserve high-dose PO vanco for fulminant disease.
C. difficile - recurrence	Vancomycin taper/pulse acceptable institutional option.	Fidaxomicin standard/extended-pulsed preferred over standard vanco course; consider microbiota therapy for multiple recurrences.	Individualize.
cIAI (Complicated Intra-abdominal Infection) - community	Ceftriaxone 2 g IV q24h + metronidazole 500 mg q8-12h for many extra-biliary infections.	Broaden based on severity/source/local resistance.	Source control ; generally 4-7 d after adequate control.
cIAI (Complicated Intra-abdominal Infection) - severe/healthcare-associated	Pip-tazo OR cefepime + metronidazole ; meropenem if ESBL/MDR risk supports.	Add MRSA/Enterococcus coverage only when risk supports.	De-escalate ; generally 4-7 d after source control .
PID - outpatient	Ceftriaxone 500 mg IM x1 + doxycycline 100 mg BID + metronidazole 500 mg BID.	-	14 d.
Gonorrhea	Ceftriaxone 500 mg IM x1 (<150 kg); 1 g x1 if >=150 kg.	Severe cephalosporin allergy: gentamicin 240 mg IM + azithro 2 g PO x1.	Treat chlamydia if not excluded.
Trichomoniasis	Women: metronidazole 500 mg PO BID x7 d. Men: metronidazole 2 g PO x1.	Tinidazole 2 g PO x1.	Sex-specific regimen.
Uncomplicated cystitis	Nitrofurantoin 100 mg BID x5 d OR TMP-SMX DS BID x3 d when appropriate.	Selected oral beta-lactam based on susceptibility.	Do not treat asymptomatic bacteriuria except defined indications.
Pyelonephritis / cUTI	Culture -guided; ceftriaxone is common initial option for susceptible community-onset disease.	Cefepime/pip-tazo/carbapenem only if severity/PSA/ESBL risk supports.	Early PO step-down when appropriate; often ~7 d with good response.

Syphilis - early (primary, secondary, early latent)	Preferred: benzathine penicillin G (Bicillin L-A®) 2.4 million units IM x1.	During Bicillin L-A shortage, NONPREGNANT patients when BPG unavailable: doxycycline 100 mg PO BID x14 d. Ceftriaxone 1 g IV/IM daily x10 d may be considered; optimal dose/ duration less well defined.	Preserve BPG for pregnancy. Pregnancy: penicillin required (desensitize if allergic). Close serologic/clinical follow-up.
Syphilis - late latent / unknown duration	Preferred: benzathine penicillin G (Bicillin L-A®) 2.4 million units IM weekly x3.	During shortage, NONPREGNANT patients: doxycycline 100 mg PO BID x28 d. Ceftriaxone may be effective, but optimal dose/ duration undefined; discuss with ID.	Pregnancy: penicillin required. Neurosyphilis/ocular/otic syphilis requires a different regimen.

SKIN / BONE / JOINT / OTHER

Indication	Preferred empiric therapy	Alternative / broaden when indicated	Duration / key note
Nonpurulent cellulitis	Cephalexin PO (mild) OR cefazolin IV (hospitalized moderate).	MRSA therapy only if risk/clinical syndrome warrants.	Usually 5 d; extend if slow response.
Purulent SSTI / MRSA	I&D when indicated + TMP-SMX or doxycycline for appropriate outpatient disease.	Severe: IV vancomycin ; alternatives per susceptibility/ID.	Source control is primary.
Bite wound	Amox-clav 875/125 mg BID; severe /inpatient: amp-sulbactam 3 g IV q6h.	Severe immediate beta-lactam allergy: levofloxacin 750 mg IV/PO q24h + metronidazole 500 mg IV/PO q8h; OR moxifloxacin 400 mg IV/PO q24h monotherapy when appropriate. For less severe oral therapy, doxycycline 100 mg PO BID + metronidazole 500 mg PO q8h may be used.	Prophylaxis 3-5 d when indicated; infection usually 5-7+ d.
Necrotizing infection	Documented GAS (Group A Streptococcus): penicillin G 4 million units IV q4h PLUS clindamycin 900 mg IV q8h.	Empiric necrotizing infection before cultures: vancomycin OR linezolid PLUS piperacillin-tazobactam OR a carbapenem ; ceftriaxone + metronidazole is another broad option in selected patients. Narrow promptly when microbiology is available.	Surgical emergency - urgent surgical consultation/debridement. Obtain deep tissue cultures .
Osteomyelitis - MSSA	Cefazolin OR nafticillin/oxacillin ; selected oral step-down may be appropriate.	Tailor to deep/bone culture .	Often ~6 wk; source/site specific.
Septic arthritis - empiric	Vancomycin + ceftriaxone 2 g IV q24h for many community-onset cases.	If substantial Pseudomonas aeruginosa risk: use cefepime 2 g IV q8h instead of ceftriaxone . Severe beta-lactam allergy: consider aztreonam 2 g IV q8h for gram-negative coverage, guided by local susceptibility/ID.	Urgent joint aspiration/drainage and cultures . De-escalate to organism-directed therapy; duration usually 2-4 wk depending on organism, joint, source control , and response.
Febrile neutropenia - high risk	Cefepime OR pip-tazo OR meropenem (when resistance risk supports).	Add vancomycin only for defined indications; no routine aminoglycoside.	Persistent/recurrent fever after 4-7 d of broad-spectrum antibiotics in high-risk prolonged neutropenia: evaluate for invasive fungal infection and initiate empiric/preemptive mold-active antifungal therapy as clinically indicated.
HIV PEP (Post-Exposure Prophylaxis)	Start ASAP, ideally <=24 h and no later than 72 h: bictegravir/emtricitabine/tenofovir AF (BIC/FTC/TAF; Biktarvy®) OR dolutegravir (DTG; Tivicay®) + (TAF or TDF) + (FTC or 3TC).	Individualize for renal/hepatic function, pregnancy, interactions.	28 d. PEP = post-exposure prophylaxis; distinct from PrEP.
HIV PrEP (Pre-Exposure Prophylaxis) – oral	Emtricitabine/tenofovir DF (FTC/TDF; Truvada® or generic) 200/300 mg PO daily OR emtricitabine/tenofovir AF (FTC/TAF; Descovy®) 200/25 mg PO daily.	Truvada® /generic: sexual or injection-drug-use risk. Descovy®: sexual transmission; not indicated for receptive vaginal sex.	Confirm HIV-negative status; follow CDC renal/HBV/STI monitoring; select by exposure route, renal function and preference.
HIV PrEP (Pre-Exposure Prophylaxis) – injectable	Cabotegravir LA (CAB-LA; Apretude®) 600 mg IM: initial dose, second dose 1 month later, then q2 months.	Long-acting option for sexual-exposure prevention.	Adults/adolescents >=35 kg; follow CDC HIV testing/injection schedule.

**** Vancomycin:** use pharmacy-guided dosing/monitoring. For serious **MRSA** infection, **AUC-guided monitoring** is preferred; target AUC24/MIC 400-600 (assuming MIC=1 mg/L).

Tahseen J. Siddiqui, M.D

Infectious Disease Specialist & Medical Director, Infection Prevention

References: ATS CAP 2025; ATS/IDSA HAP/VAP 2016; IDSA/SHEA CDI 2021; CDC STI 2021/current updates; CDC HIV nPEP 2025 & PrEP Clinical Guidance 2026; NIH OI Guidelines; IDSA SSTI 2014; ASHP/IDSA/PIDS/SIDP **Vancomycin** Monitoring 2020; SANJO Septic Arthritis 2023; IDSA Aspergillosis/Febrile Neutropenia guidance.