

Recommendations for empiric antimicrobial therapy for purulent meningitis based on patient age and specific predisposing condition*		
Predisposing factor	Common bacterial pathogens	Antimicrobial therapy
Age		
<1 month	<i>Streptococcus agalactiae, Escherichia coli, Listeria monocytogenes, Klebsiella species</i>	Ampicillin plus cefotaxime; OR ampicillin plus an aminoglycoside
1-23 months	<i>Streptococcus pneumoniae, Neisseria meningitidis, S. agalactiae, Haemophilus influenzae, E. coli</i>	Vancomycin plus a third-generation cephalosporin•Δ◇
2-50 years	<i>N. meningitidis, S. pneumoniae</i>	Vancomycin plus a third-generation cephalosporin•Δ◇
>50 years	<i>S. pneumoniae, N. meningitidis, L. monocytogenes, aerobic gram-negative bacilli</i>	Vancomycin plus ampicillin plus a third-generation cephalosporin•Δ
Head trauma		
Basilar skull fracture	<i>S. pneumoniae, H. influenzae, group A beta-hemolytic streptococci</i>	Vancomycin plus a third-generation cephalosporin•Δ
Penetrating trauma	<i>Staphylococcus aureus, coagulase-negative staphylococci (especially Staphylococcus epidermidis), aerobic gram-negative bacilli (including Pseudomonas aeruginosa)</i>	Vancomycin plus cefepime; OR vancomycin plus ceftazidime; OR vancomycin plus meropenem
Postneurosurgery	Aerobic gram-negative bacilli (including <i>P. aeruginosa</i>), <i>S. aureus, coagulase-negative staphylococci (especially S. epidermidis)</i>	Vancomycin plus cefepime; OR vancomycin plus ceftazidime; OR vancomycin plus meropenem
Immunocompromised state	<i>S. pneumoniae, N. meningitidis, L. monocytogenes, aerobic gram-negative bacilli (including P. aeruginosa)</i>	Vancomycin plus ampicillin plus cefepime; OR vancomycin plus ampicillin plus meropenem

* For recommended dosages for adults, see the table "Recommended intravenous dosages of antimicrobial therapy for adults with bacterial meningitis".

• Ceftriaxone or cefotaxime.

Δ Some experts would add rifampin if dexamethasone is also given.

◇ Add ampicillin if meningitis caused by *Listeria monocytogenes* is suspected.

Modified with permission from: Tunkel, AR, Hartman, BJ, Kaplan, SL, et al. Practice guidelines for the management of bacterial meningitis. Clin Infect Dis 2004; 39:1267. Copyright ©2004 University of Chicago Press.