

Penicillins - 3rd generation - Aminopenicillins

amoxicillin (**Amoxil, DisperMox, Polymox, Trimox**, ***Novamoxin**): 250-500 mg PO tid, or 500-875 mg PO bid. Acute sinusitis with antibiotic use in past month &/or drug-resistant S pneumoniae rate >30%: 3-3.5 g/day PO. High-dose for community-acquired pneumonia: 1 g PO tid. Lyme disease: 500 mg PO tid x 14 days for early disease, x 28 days for Lyme arthritis. Chlamydia in pregnancy: 500 mg PO tid x 7 days. Peds AAP otitis media: 80-90 mg/kg/day divided bid-tid. AAP recommends 5-7 days of therapy for older (≥6 yo) children with non-severe otitis media, and 10 days for younger children and those with severe disease. Peds non-otitis: 40 mg/kg/day PO divided tid or 45 mg/kg/day divided bid. [Generic/Trade: Caps 250,500 mg, tabs 500,875 mg, chews 125, 200,250,400mg, susp 125, 250 mg/5 mL, susp 200 & 400 mg/5 mL. Trade only: Infant drops 50 mg/mL (Amoxil). DisperMox 200,400,600 mg tabs for oral susp.] ▶K ♀B ▶+ \$

amoxicillin-clavulanate (**Augmentin, Augmentin ES-600, Augmentin XR**, ***Clavulin**): 500-875 mg PO bid or 250-500 mg tid. Augmentin XR: 2 tabs PO q12h with meals. Peds AAP otitis media: Augmentin ES 90 mg/kg/day divided bid. AAP recommends 5-7 days of therapy for older (≥6 yo) children with non-severe otitis media, and 10 days for younger children and those with severe disease. Peds: 45 mg/kg/day PO divided bid or 40 mg/kg/day divided tid for otitis, sinusitis, pneumonia; 25 mg/kg/day divided bid or 20 mg/kg/day divided tid for less severe infections. [Generic/Trade: (amoxicillin + clavulanate) Tabs 250+125, 500+125, 875+125 mg, chewables and susp 200+28.5, 400+57 mg per tab or 5 mL, (ES) susp 600+42.9 mg/5mL Trade: Chewables and susp 125+31.25, 250+62.5 mg per tab or 5 mL. Extended-release tabs (Augmentin XR) 1000+62.5 mg.] ▶K ♀B ▶? \$\$\$

ampicillin (**Principen**, ***Penbritin**): Usual dose: 1-2 g IV q4-6h. Sepsis, meningitis: 150-200 mg/kg/day IV divided q3-4h. Peds: 50-400 mg/kg/day IM/IV divided q4-6h. [Generic/Trade: Caps 250,500 mg, susp 125 & 250 mg/5 mL.] ▶K ♀B ▶? \$ PO \$\$\$\$\$ IV

ampicillin-sulbactam (**Unasyn**): 1.5-3 g IM/IV q6h. Peds: 100-400 mg/kg/day of ampicillin divided q6h. ▶K ♀B ▶? \$\$\$\$\$

PROPHYLAXIS FOR BACTERIAL ENDOCARDITIS*

Limited to dental or respiratory tract procedures in patients at highest risk: prosthetic heart valve, prior infective endocarditis, valvulopathy after cardiac transplantation, or some types of congenital heart disease (unrepaired congenital cyanotic disease, repairs for the first 6 months, repairs with residual defect). All regimens are single doses administered 30-60 minutes prior to procedure.	
Standard regimen	amoxicillin ¹ 2 g PO
Unable to take oral meds	ampicillin ¹ 2 g IV/IM; or cefazolin ¹ or ceftriaxone ¹ 1 g IM/IV
Allergic to penicillin	clindamycin ² 600 mg PO; or cephalexin ^{1†} 2 g PO; or azithromycin ³ or clarithromycin ³ 500 mg PO
Allergic to penicillin and unable to take oral meds	clindamycin ² 600 mg IV/IM; or cefazolin ^{1†} or ceftriaxone ^{1†} 1 g IV/IM

* Footnotes for pediatric doses: 1 = 50 mg/kg; 2 = 20 mg/kg; 3 = 15 mg/kg. Total pediatric dose should not exceed adult dose. For additional details of the 2007 AHA guidelines, see <http://www.americanheart.org>. Prophylaxis is no longer recommended for GU or GI tract procedures, and skin procedure prophylaxis is only recommended if the skin structure or musculoskeletal tissue is infected (use anti-staphylococcal penicillin or cephalosporin, or clindamycin or vancomycin if patient cannot tolerate beta-lactam or MRSA suspected).

†Avoid cephalosporins if prior penicillin-associated anaphylaxis, angioedema, or urticaria.

PENICILLINS - GENERAL ANTIMICROBIAL SPECTRUM

1 st generation:	Most streptococci; oral anaerobic coverage
2 nd generation:	Most streptococci; Staph aureus
3 rd generation:	Most streptococci; basic gram negative coverage
4 th generation:	Pseudomonas

pivampicillin (**Pondocillin**): Canada only. Adults: 500-1000 mg PO bid. Infants, 3-12 mo: 40-60 mg/kg/day PO divided bid. Peds, 1-10 yo: 25-35 mg/kg/day PO divided bid up to 525 mg PO bid. [Trade only: Tabs 500 mg (377 mg ampicillin), # 20, oral susp 35 mg/mL (26 mg ampicillin), 100,150,200 mL bottles.] ▶K ♀? ▶? \$

Penicillins - 4th generation - Extended Spectrum

carbenicillin (**Geocillin**): UTI: 382-764 mg PO qid. Prostatitis: 764 mg PO qid. [Trade only: Tab 382 mg.] ▶K ♀B ▶? \$\$\$\$\$

piperacillin: 3-4 g IM/IV q4-6h. ▶K/Bile ♀B ▶? \$\$\$\$\$

piperacillin-tazobactam (**Zosyn**, ★**Tazocin**): 3.375-4.5 g IV q6h. Peds: 300-400 mg/kg/day piperacillin IV divided q6-8h for >6 mo; 150-300 mg/kg/day IV divided q6-8h for <6 mo. Peds appendicitis/peritonitis: 100 mg/kg piperacillin IV q8h for ≥9 mo; 80 mg/kg IV q8h for 2-9 mo; use adult dose if >40 kg. ▶K ♀B ▶? \$\$\$\$\$

ticarcillin (**Ticar**): 3-4 g IM/IV q4-6h. Peds: 200-300 mg/kg/d divided q4-6h. ▶K ♀B ▶+ \$\$\$\$\$

ticarcillin-clavulanate (**Timentin**): 3.1 g IV q4-6h. Peds: 50 mg/kg up to 3.1 g IV q4-6h. ▶K ♀B ▶? \$\$\$\$\$

Quinolones - 1st Generation

nalidixic acid (**NegGram**): 1 g PO qid. [Trade: Tabs 0.25, 0.5, 1 g.] ▶KL ♀C ▶? \$\$\$\$

Quinolones - 2nd Generation

ciprofloxacin (**Cipro**, **Cipro XR**, **ProQuin XR**): 200-400 mg IV q8-12h. 250-750 mg PO bid. Simple UTI: 250 mg bid x 3d or Cipro XR/Proquin XR 500 mg PO daily x 3d. Give Proquin XR with main meal of day. Cipro XR for pyelonephritis or complicated UTI: 1000 mg PO daily x 7-14 days. [Generic/Trade: Susp 250 & 500 mg/5 mL. Tabs 100, 250, 500, 750 mg. Extended release tabs 500 mg (Cipro XR & ProQuin XR), 1000 mg (Cipro XR only). Trade only: ProQuin XR blister pack 500 mg #3.] ▶LK ♀C but teratogenicity unlikely ▶?+ \$\$\$\$

lomefloxacin (**Maxaquin**): 400 mg PO daily. Take at night. Photosensitivity. [Trade only: Tabs 400 mg.] ▶LK ♀C ▶? \$\$\$

norfloxacin (**Noroxin**): Simple UTI: 400 mg PO bid x 3 days. [Trade only: Tabs 400 mg.] ▶LK ♀C ▶? \$\$\$

ofloxacin (**Floxin**): 200-400 mg PO bid. [Generic/Trade: Tabs 200, 300, 400 mg.] ▶LK ♀C ▶?+ \$\$\$

QUINOLONONES- GENERAL ANTIMICROBIAL SPECTRUM

1 st generation:	gram negative (excluding Pseudomonas), urinary tract only, no atypicals
2 nd generation:	gram negative (including Pseudomonas); Staph aureus but not pneumococcus; some atypicals
3 rd generation:	gram negative (including Pseudomonas); gram positive (including Staph aureus and pneumococcus); expanded atypical coverage
4 th generation:	same as 3 rd generation plus enhanced coverage of pneumococcus, decreased activity vs. Pseudomonas.