Health PEI

ANTIMICROBIAL STEWARDSHIP PROGRAM

IV Amoxicillin-Clavulanate Updates (For Adults)

Amoxicillin-clavulanate is a broad spectrum antimicrobial that contains an aminopenicillin (amoxicillin) and a beta-lactamase inhibitor (clavulanate) making it effective against some beta-lactamase producing bacteria.

Spectrum of Activity:

Active against	NOT Active against
▪ Gram positive aerobes: MSSA, most *Streptococci* spp., *E. faecalis* ▪ Gram negative aerobes: *M. catarrhalis*, *Haemophilus* spp., non-ESBL *E.Coli* & *Klebsiella* spp. ▪ Anaerobes: most oral and gut anaerobes, including *Bacteroides* spp.	▪ Gram positive: MRSA, ampicillin-resistant *E. faecium* ▪ Gram negative: *Pseudomonas* spp., *Stenotrophomonas* spp., *Enterobacterales* spp. with ESBL or Amp C ▪ Atypical organisms (e.g. *Mycoplasma*, *Legionella*, *Chlamydophila*)

Indications: Polymicrobial infections when *Pseudomonas* spp. coverage is NOT required

- Polymicrobial Skin and soft tissue infections (e.g. diabetic foot infections)
- Select intra-abdominal infections (esp when *Enterococcus* coverage required)
- Severe animal bites

NOT indicated:

- Suspecting *Pseudomonas* or AmpC producing gram negatives
- More narrow spectrum antibiotics are an option (e.g. cefazolin + metronidazole)
- More affordable options exist that may be equally effective (e.g. ceftriaxone + metronidazole)
- Outpatient parenteral antimicrobial therapy (due to short stability)

Benefits:

- Reduces risk for gram negative resistance (e.g. *Pseudomonas aeruginosa)*
- Easy transition to oral amoxicillin-clavulanate
- Cost savings when compared to piperacillin-tazobactam (but MORE expensive than ceftriaxone +/- metronidazole

Firstline

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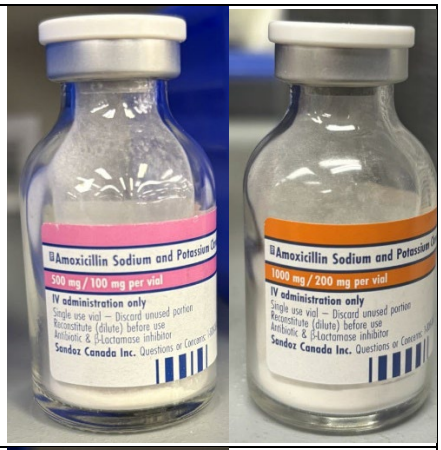
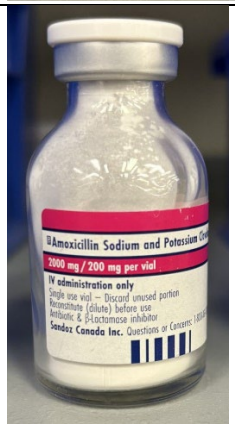
Vial Sizes Available and Adult Dosing

CAUTION: Look-a-like Vials (5:1 and 10:1 ratio vials are NOT interchangeable)

5:1 Ratio vials (amox:clav) • 500 mg/100 mg vial size • 1000 mg/200 mg vial size **Dose** 1000 mg/200 mg IV every 6 to 8 hours • Use 1000 mg/200 mg every 6 hours for severe infections or any infection involving gram negative (Enterobacterales) organisms.	
10:1 Ratio vials (amox:clav) • 2000 mg/200 mg vial size **Dose** 2000 mg/200 mg IV every 8 to 12 hours • This dosing regimen is in the product monograph and is less studied than the 1000 mg/200 mg dosing regimens above	

For Renal dosing → See Firstline or Powerplan for Amoxicillin-Clavulanate IV
For Pediatric dosing → See Pediatric Powerplan for Amoxicillin-Clavulanate IV

This guidance is an adaptation of Nova Scotia Health Firstline and Saskatchewan Health Authority Antimicrobial Stewardship Program IV Amoxicillin-clavulanate handout. Dosing recommendations come from Bugs and Drugs 2.0 app and Lexicomp.