Amoxicillin (Amoxycillin)

(Amoxinsol, Amoxycare, Amoxinsol, Amoxypen, Bimoxyl, Clamoxyl, Duphamox, Huvamox, Rhemox, Solamocta) POM-V

- **Last updated:** March 2023
- **Formulations**

Injectable: 150 mg/ml suspension. Oral: 40 mg, 200 mg, 250 mg tablets; suspension which when reconstituted provides 50 mg/ml.

- **Action**

Binds to penicillin-binding proteins involved in bacterial cell wall synthesis, thereby decreasing cell wall strength and rigidity, affecting cell division, growth and septum formation. These antimicrobials act in a time-dependent bactericidal fashion.

- **Use**

Active against certain Gram-positive and Gram-negative aerobic organisms and many obligate anaerobes but not against those that produce penicillinases (beta-lactamases), e.g. *Escherichia coli* , *Staphylococcus aureus*. The more difficult Gram-negative organisms (*Pseudomonas* , *Klebsiella*) are usually resistant. Amoxicillin is excreted well in bile and urine. Oral amoxicillin may be given with or without food. Since amoxicillin works in a time-dependent fashion, it is important to maintain levels above the MIC for a high percentage of the time. In practical terms this means that the dosing interval is critical and missing doses can seriously compromise efficacy. In ferrets it is used in combination with bismuth subsalicylate, ranitidine or omeprazole and metronidazole ('triple therapy') for treatment of *Helicobacter mustelae* infection. Used to treat bacterial diseases in fish.

More +

- **DOSES**

Classified as category D (Prudence) by the EMA. See Appendix for guidelines on responsible antibiotic use.

  - **Mammals:** Ferrets: 10–30 mg/kg s.c., p.o. q12h; Rabbits: 7 mg/kg s.c. q24h; Rats, Mice: 100–150 mg/kg i.m., s.c. q12h; Primates: 11 mg/kg p.o. q12h or 11 mg/kg s.c., i.m. q24h; Prosimians: 10-20 mg/kg p.o. q 12h; Sugar gliders: 30 mg/kg p.o., s.c. q12–24h for 14 days; Hedgehogs: 15 mg/kg p.o., s.c., i.m. q8–12h. Guinea pigs, Chinchillas, Hamsters, Gerbils, Degus; do not use.
  - **Birds:** 150–175 mg/kg i.m., s.c. q8–12h (q24h for long-acting preparations); Raptors, Parrots: 175 mg/kg p.o. q12h; Pigeons: 1–1.5 g/l drinking water q24h for 3–5 days or 100–200 mg/kg p.o. q6–8h; Waterfowl: 1 g/l drinking water alternate days for 3–5 days or 300–500 mg/kg p.o. (in soft food) for 3–5 days; Passerines: 1.5 g/l drinking water for 3–5 days.
  - **Reptiles:** 10-20 mg/kg i.m., p.o. q12–24h

- **Fish:** 40–80 mg/kg in feed q24h for 10 days or 12.5 mg/kg i.m. once (long-acting preparation) [a].
- **Amphibians:** No information available.