

Amoxicillin / Clavulanate

- Drug Information

Brand Names:

Clavamox®, Augmentin®, Amoclan®

Pharmacology:

Beta lactamase inhibitor type broad spectrum bactericidal antibiotic

Indications:

Amoxicillin/clavulanate potassium tablets and oral suspension products are FDA-approved for use in dogs and cats for the treatment of urinary tract, skin, and soft tissue infections caused by susceptible organisms, particularly gram-positive bacteria and anaerobes. It is indicated for canine periodontal disease due to susceptible strains of bacteria. Amoxicillin/potassium clavulanate is also used for treatment of bacterial respiratory tract infections, although it is ineffective against Mycoplasmas and resistance in Bordetella spp is an increasing problem in some regions.

Contraindications:

- General

Contraindicated in patients with history of hypersensitivity to penicillin antibiotics and possibly cephalosporin antibiotics because of the potential for cross reactivity.

Caution when using in pregnant animals.

Do not administer systemic antibiotics orally in patients with septicemia, shock, or other grave illnesses, as absorption of the medication from the GI tract may be significantly delayed or diminished.

- Small Animal

- Chinchilla

Do not administer penicillins, cephalosporins, or macrolides as serious enteritis and clostridial enterotoxemia may occur.

- Rabbit

Do not administer penicillins, cephalosporins, or macrolides as serious enteritis and clostridial enterotoxaemia may occur.

- Guinea Pig

Do not administer penicillins, cephalosporins, or macrolides as serious enteritis and clostridial enterotoxaemia may occur.

- Hamster

Do not administer penicillins, cephalosporins, or macrolides as serious enteritis and clostridial enterotoxaemia may occur.

Interactions:

- General Interactions

Food may decrease oral absorption.

Give 1 hour before or 2 hours after a meal unless GI side effects occur.

Probenecid competitively blocks the tubular secretion of most penicillins and thereby increases serum levels and serum half lives.

- Category Interactions

- Aminoglycoside Antibiotic

Penicillins have synergistic effects against certain bacteria when used with aminoglycosides.

- Antacid

May decrease oral absorption of antibiotic.

- Bacteriostatic

Penicillins tend to perform better on growing bacteria therefore the use of bacteriostatic antibiotics is not recommended.

- Cephalosporin antibiotic

Penicillins have synergistic effects against certain bacteria when used with cephalosporins.

- Drug Interactions

- Methotrexate

Amoxicillin may decrease the renal excretion of Methotrexate, causing increased levels and

potential toxic effects.

- Probenecid

Competitively blocks the tubular secretion of most penicillins, thereby increasing serum levels and serum half-lives.

Adverse Effects:

- General

Hypersensitivity reactions can occur-rash, blood disorders, fever or full blown anaphylaxis.

May cause GI effects- vomiting, anorexia, diarrhea.

Elevated liver enzymes have been reported.

- Small Animal

- Dog

High doses or prolonged use can cause neurotoxicity (ataxia) in the dog.

Other reported effects include tachypnea, dyspnea, edema and tachycardia.

Dosages:

- General

Veterinary products are labeled for use in dogs and cats. Use in other species is considered extra label.

Food may decrease oral absorption. Give 1 hour before or 2 hours after a meal unless GI side effects occur.

All dosages listed are for combined quantities of both drugs (unless noted otherwise).

- Small Animal

- Dog

Labeled Indications: Skin and soft tissue infections - 13.75 mg/kg by mouth every 12 hours. Skin and soft tissue infections should be treated for 5 - 7 days or for 48 hours after all symptoms have subsided. If no response is seen after 5 days of treatment, therapy should be discontinued and the case reevaluated. Deep pyoderma may require treatment for 21 days; the maximum duration of treatment should not exceed 30 days.

Urinary tract infections (extra-label): 12.5 - 25 mg/kg by mouth every 8 - 12 hours. This is generally not recommended initially because use of the narrowest spectrum that is possible while maintaining optimal efficacy (amoxicillin alone or trimethoprim/sulfa are preferred for empirical treatment).

Typically, sporadic bacterial cystitis is treated for 3 - 5 days.

Pyoderma (extra-label): Superficial: 12.5 mg/kg by mouth every 12 hours for 21 - 28 days.

Treatment of endocarditis (chronic therapy) secondary to a susceptible strain of *Staphylococcus* spp (extra-label): 20 mg/kg by mouth every 8 hours for 6 - 8 weeks.

Canine infectious respiratory disease complex when a bacterial component is involved (extra-label): 11 mg/kg by mouth every 12 hours as a first line treatment option for bacterial upper respiratory tract infection not suspected to be caused by *Mycoplasma* spp.

- Cat

Labeled Indications: Skin and soft tissue infections and Urinary tract infections (see label): 62.5 mg PER CAT by mouth every 12 hours. Skin and soft tissue infections should be treated for 5 - 7 days or 48 hours after all symptoms have subsided, not to exceed 30 days. If no response is seen after 3 days of treatment, therapy should be discontinued and the case reevaluated. Urinary tract infections may require treatment for 10 - 14 days or longer. The maximum duration of treatment should not exceed 30 days.

Urinary tract infections (extra-label): Empirically (when waiting for culture/susceptibility results) or if organism is susceptible: 12.5 - 25 mg/kg by mouth every 8 - 12 hours. This is generally not recommended initially because use of the narrowest spectrum that is possible while maintaining optimal efficacy (amoxicillin alone or trimethoprim/sulfa are preferred for empirical treatment).

Typically, sporadic bacterial cystitis is treated for 3 - 5 days.

Upper respiratory tract disease with a bacterial component(extra-label): 12.5 mg/kg by mouth every 12 hours.

- Birds (small)

50 - 100 mg/kg by mouth every 6 - 8 hours

- Ferret

10 - 20 mg/kg by mouth every 8 - 12 hours

Special Notes:

None