Amoxicillin (Amoxycillin)

(Amoxibactin (c,d), Amoxycare (c,d), Amoxypen (c,d), Betamox (c,d), Bimoxyl (d), Clamoxyl (c,d), Trymox LA (c,d)) POM-V

- **Formulations**

Injectable: 150 mg/ml suspension. Oral: 40 mg, 50 mg, 200 mg, 250 mg, 500 mg tablets; suspension that provides 50 mg/ml when reconstituted.

- **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. Acts in a time-dependent fashion.

- **Use**
    - Active against certain Gram-positive and Gram-negative aerobic organisms and many obligate anaerobes.

Resistance is possible due to bacterial production of penicillinases (beta-lactamases), e.g. some *Escherichia coli*,*Staphylococcus aureus*. Gram-negative organisms (*Pseudomonas*, *Proteus, Klebsiella*) are usually resistant. Amoxicillin is excreted well in bile and urine, achieving high concentrations in urine. Oral amoxicillin may be given with or without food. It is important to maintain levels above the MIC for a high percentage of the time by ensuring regular dosing; missing doses can seriously compromise efficacy.

More +

- **DOSES**

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

- **Dogs, Cats**
    - Parenteral: 7 mg/kg i.m. q24h; 15 mg/kg i.m. q48h for depot preparations.
    - Oral:
        - 10 mg/kg p.o. q8–12h.
        - 11–15 mg/kg p.o. q8h for bacterial cystitis. Evidence of a need for clavulanic acid is lacking even in infections with beta-lactamase producing bacteria.

Dose chosen will depend on site of infection, causal organism and severity of the disease. (Doses of 16–33 mg/kg i.v. q8h are used in humans to treat serious infections.)