

Commonly Used Antibiotics for Canine Pyoderma¹

Kimberly S. Coyner, DVM, Diplomate ACVD

| Antibiotic | Dose | Drug Class | Mechanism of Action |
|-----------------------------------|---|--|--|
| AMINOPENICILLINS | | | |
| Amoxicillin/ (Clavulanate) | 13.75 to 22 mg/kg PO Q 8 to 12 H | <ul style="list-style-type: none"> Beta-lactam antibiotic Potentiated aminopenicillin | <ul style="list-style-type: none"> Amoxicillin: Usually bactericidal; inhibits bacterial cell wall synthesis Clavulanic acid: Acts by binding to beta-lactamases and penicillinases produced by <i>Staphylococcus</i> |
| CEPHALOSPORINS | | | |
| Cefadroxil | 22 mg/kg PO Q 12 H | <ul style="list-style-type: none"> Beta-lactam antibiotic First-generation cephalosporin | <ul style="list-style-type: none"> Usually bactericidal Inhibits bacterial cell wall synthesis |
| Cephalexin | 22 to 30 mg/kg PO Q 8 to 12 H | | |
| Cefpodoxime | 5 to 10 mg/kg PO Q 24 H | <ul style="list-style-type: none"> Beta-lactam antibiotic Third-generation cephalosporin | <ul style="list-style-type: none"> Unlike other third-generation cephalosporins, cefpodoxime and cefovecin are NOT effective against <i>Pseudomonas</i> |
| Cefovecin | <ul style="list-style-type: none"> One 8 mg/kg SC injection Second injection (8 mg/kg SC) may be administered if: <ul style="list-style-type: none"> ~ For <i>S pseudintermedius</i> infections that do not respond to therapy within 7 days ~ For <i>S canis</i> (Group G) infections that do not respond to therapy within 14 days Maximum treatment should not exceed 2 injections² | | |
| FLUOROQUINOLONES | | | |
| Enrofloxacin | 5 to 20 mg/kg PO Q 24 H (10 mg/kg or higher preferred) ³ | <ul style="list-style-type: none"> Fluoroquinolone | <ul style="list-style-type: none"> Bactericidal Inhibits bacterial DNA gyrase Prevents bacterial DNA synthesis |
| Marbofloxacin | 2.75 to 5.5 mg/kg PO Q 24 H | | |
| Orbifloxacin | 2.75 to 5.5 mg/kg PO Q 24 H | | |
| LINCOSAMIDES | | | |
| Clindamycin | 5 to 11 mg/kg PO Q 12 H | <ul style="list-style-type: none"> Lincosamide | <ul style="list-style-type: none"> Bacteriostatic or bactericidal, depending on drug concentration and organism Binds to 50S ribosomal subunit of susceptible bacteria and inhibits protein synthesis |
| Lincomycin | 15.4 mg/kg PO Q 8 H or 22 mg/kg PO Q 12 H | | |
| SULFONAMIDES | | | |
| Sulfadimethoxine/ Ormetoprim | 55 mg/kg PO on day 1; then 27.5 mg/kg PO Q 24 H | <ul style="list-style-type: none"> Potentiated sulfonamide | <ul style="list-style-type: none"> Bactericidal by sequentially inhibiting: <ul style="list-style-type: none"> ~ Enzymes in the folic acid pathway ~ Bacterial thymidine synthesis |
| Trimethoprim/ Sulfamethoxazole | 30 mg/kg PO Q 12 to 24 H or 15 mg/kg PO Q 12 H | | |

References

- Plumb DC (ed). *Plumb's Veterinary Handbook*, 7th ed. Ames, IA: Wiley-Blackwell Publishing, 2011.
- Information from Convenia label information (pfizerah.com).
- Aucoin DP. *Proc Fourth Intl Baytril Symp*, 2009, pp 6-15.

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