



Pocket guide: antimicrobial prescribing for common small animal diseases

Ten tenets of antimicrobial prescribing

- Make a diagnosis.
- Follow antimicrobial guidelines.
- Consider host, likely disease agent, and drug when selecting an antimicrobial.
- Use the correct dose and duration.
- Document indication, drug, dose, frequency, route, and duration.
- Incorporate watchful waiting, as appropriate.
- Regularly review the need for therapy.
- Teach clients to administer antimicrobials.
- Do not prescribe antimicrobials “just in case.”
- Use a tiered approach, choosing antimicrobials with lower importance to human medicine first.

Tips for client satisfaction

- Recommend specific symptomatic therapy when antibiotics are not needed.
- Provide a plan if symptoms do not improve.
- Educate clients. Combine positive treatment recommendations with explanations for why antibiotics are not needed.
- Answer questions.
- When using delayed prescriptions, write an expiration date on the prescriptions so it can be filled only during the watchful waiting period.

Watchful waiting: Delay prescribing for conditions that often self-resolve. Communicate the plan for watchful waiting, letting the client know when to be concerned or contact you for follow-up.



ANTIMICROBIAL RESISTANCE
AND STEWARDSHIP INITIATIVE

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Treatment and management recommendations adapted from:

Hillier A, et al. Guidelines for the diagnosis and antimicrobial therapy of canine superficial bacterial folliculitis (Antimicrobial Guidelines Working Group of the International Society for Companion Animal Infectious Diseases). z.umn.edu/iscaidfolliculitis
Lappin MR, et al. Antimicrobial use Guidelines for Treatment of Respiratory Tract Disease in Dogs and Cats: Antimicrobial Guidelines Working Group of the International Society for Companion Animal Infectious Diseases. z.umn.edu/iscaidrespiratory
Weese JS, et al. International Society for Companion Animal Infectious Diseases (ISCAID) guidelines for the diagnosis and management of bacterial urinary tract infections in dogs and cats. z.umn.edu/iscaiduti

Feline bacterial upper respiratory infection

Doxycycline	5 mg/kg PO q12hr	7-10 days
Amoxicillin	22 mg/kg PO q12hr	

Consider watchful waiting if clinical signs present <10 days.

If clinical signs present >10 days or worsen over 5-7 days, antibiotic therapy (above) might be warranted.

Canine infectious respiratory disease

Doxycycline	5 mg/kg PO q12hr	7-10 days
Amoxicillin-clavulanate	11 mg/kg PO q12hr	

Consider watchful waiting if clinical signs present <10 days.

Treat within 10 day period if fever, lethargy, or inappetence present with mucopurulent discharge.

Canine superficial pyoderma

Cephalexin	15-30 mg/kg PO q12hr	≥ 2 weeks
Clindamycin*	5.5-10 mg/kg PO q12hr	

Topical treatment with antiseptics alone may be sufficient for mild or focal cases.

Frequent re-evaluation is needed to determine treatment duration.

**Staph.* strains resistant to erythromycin may develop resistance to clindamycin during treatment.

Bacterial pneumonia

Pneumonia without sepsis

Ampicillin, ampicillin-sulbactam, or cefazolin.

Use oral equivalents if IV is not needed.

Pneumonia with sepsis

Parenteral fluoroquinolone plus ampicillin

OR parenteral fluoroquinolone plus ampicillin-sulbactam

OR parenteral fluoroquinolone plus clindamycin

OR base on culture and susceptibility testing

Re-evaluate in 7-10 days to determine treatment duration.

Sporadic bacterial cystitis

Amoxicillin	10-15 mg/kg PO q12hr	3-5 days
Trimethoprim-sulfa	15-30 mg/kg PO q12hr	

UTI is uncommon in young cats. Consider alternative diagnoses, such as urolithiasis and feline idiopathic cystitis.

Recurrent bacterial cystitis

Definition: ≥3 UTIs in 12 months or ≥2 in 6 months.

Perform diagnostics (e.g., urinary tract imaging) to identify predisposing cause.

Treat as for sporadic bacterial cystitis and/or based on culture and susceptibility testing.

Pyelonephritis

Enrofloxacin	5-20 mg/kg PO SID (dog)	10-14 days
Marbofloxacin	2.7-5.5 mg/kg PO q12hr	
Cefpodoxime	5-10 mg/kg PO q24hr (dog)	

Acute diarrhea

Antibiotics might cause further dysbiosis.

Consider dietary, prebiotic, probiotic, and supportive therapy.

Acute hemorrhagic diarrheal syndrome with sepsis

Amoxicillin	10-15 mg/kg PO q12hr	5-7 days
Metronidazole	10-15 mg/kg PO q12hr	

Antibiotics indicated only with degenerative left shift/sepsis.