



MANAGING MICROBES™

A SYSTEMS APPROACH TO ANTIMICROBIAL SELECTION

DOSES RECOMMENDED FOR DRUGS LISTED IN CHART

Some drugs listed below are not approved for dogs or cats, or may have doses and indications that are extra-label. For extra-label use, safety and efficacy may not be established. These dosing guidelines are based on Dr. Mark Papich's clinical judgment and product-specific information. A reliable reference should be consulted before administering these drugs. Selection of drug should ideally be based on a test of antimicrobial susceptibility using standards provided by CLSI (www.clsi.org).

	Aural	Gastrointestinal/Hepatobiliary	Lower Respiratory	Oral	Orthopedic	Skin/Soft Tissue	Upper Respiratory	Urinary Tract	Bloodborne Infections
Most Common Diagnoses	Acute suppurative otitis Chronic purulent otitis	Bacterial enteritis/colitis Cholecystitis Helicobacter spp gastritis Suppurative cholangiohepatitis	Bronchitis Pneumonia Pyothorax	Endodontic disease (periapical infections) Gingivitis Periodontitis Stomatitis	Diskospondylitis Open fractures Osteomyelitis	Abscess Deep pyoderma Folliculitis Soft-tissue infection Superficial pyoderma Wounds	Infectious tracheobronchitis Rhinitis Secondary bacterial infection	Bladder stones (secondary to infection) Cystitis Nephroliths Prostatitis Pyelonephritis	Babesiosis (<i>Babesia canis</i>) Azithromycin + atovaquone Clarithromycin + atovaquone Imidocarb Bartonellosis (<i>Bartonella henselae</i>) Azithromycin or clarithromycin with or without doxycycline, or rifampin. Borreliosis (<i>Borrelia burgdorferi</i>) Amoxicillin Azithromycin Clarithromycin Doxycycline or minocycline. Ehrlichiosis (<i>Ehrlichia</i> spp.) Doxycycline or minocycline Rocky Mountain Spotted Fever (<i>Rickettsia rickettsii</i>) Chloramphenicol Fluoroquinolones ¹ Doxycycline or minocycline Haemoplasmiasis (cats) (<i>Mycoplasma haemofelis</i>) Doxycycline: 10 mg/kg, PO, q24hr, or 5 mg/kg q12h x 7-28 days Alternative: • Enrofloxacin, 5 mg/kg, PO, q24hr for 7-28 days • Marbofloxacin, 2.5 mg/kg, PO, q24hr for 7-28 days • Orfloxacin, 2.5 mg/kg, PO, q24hr for 7-28 days • Pradofloxacin, 5 or 10 mg/kg, q24h • Imidocarb, 5 mg/kg, IM, 2-4 doses q14 days
Commonly Associated Pathogens	AEROBES GRAM + Staphylococcus Streptococcus GRAM - E. coli Proteus Pseudomonas	AEROBES GRAM + Enterococcus Staphylococcus Streptococcus ANAEROBES Clostridium Peptostreptococcus GRAM - Campylobacter E. coli Enterobacter Klebsiella Salmonella	AEROBES GRAM + Enterococcus Staphylococcus Streptococcus ANAEROBES Actinomyces Clostridium Nasutella Peptostreptococcus GRAM - B. bronchiseptica E. coli Klebsiella Pasteurella Pseudomonas	AEROBES GRAM + Staphylococcus Streptococcus ANAEROBES Peptostreptococcus GRAM - Enterobacteriaceae Pasteurella	AEROBES GRAM + Staphylococcus Streptococcus ANAEROBES Actinomyces Clostridium Peptostreptococcus GRAM - Brucella E. coli Enterococcus Pasteurella	AEROBES GRAM + Staphylococcus Streptococcus ANAEROBES Actinomyces Clostridium GRAM - B. bronchiseptica Pasteurella Pseudomonas	AEROBES GRAM + Staphylococcus Streptococcus ANAEROBES Actinomyces Clostridium GRAM - B. bronchiseptica Pasteurella Pseudomonas	AEROBES GRAM + Enterococcus Staphylococcus Streptococcus ANAEROBES GRAM - E. coli Enterobacter Klebsiella Proteus Pseudomonas	
Empirical Antimicrobial First Choice	TOPICAL ANTIMICROBIALS Use topical medications whenever possible vs. systemic treatment. Approved products for otitis contain a combination of antibiotics, antifungals, and/or anti-inflammatory medications. Use according to the label. TOPICAL ANTI-BIOTICS Enrofloxacin Gentamicin Neomycin Polymyxin B Florfenicol TOPICAL ANTI-FUNGALS see below OTHER TOPICAL THERAPY Ear cleaners EDTA-Tris micronized silver	ORAL Amoxicillin-clavulanic acid Cefpodoxime proxetil Chloramphenicol Fluoroquinolones ¹ Cefpodoxime ENTERITIS Amoxicillin-clavulanic acid Amoxicillin Chloramphenicol First-generation cephalosporins (cephalexin) Fluoroquinolones ¹ Ormetoprim-sulfadimethoxine Trimethoprim-sulfonamide Pradofloxacin (cats only) Macrolides (azithromycin, clarithromycin) INJECTABLE Ampicillin-sulbactam Cefazolin Colitis Metronidazole Tylosin Ulcerative colitis: Fluoroquinolones ¹ Chloramphenicol Note: Diarrhea and other GI infections are often self-limiting and antibiotics are usually not necessary.	ORAL Amoxicillin-clavulanic acid Cefpodoxime proxetil Clindamycin Metronidazole (anaerobes only) Pradofloxacin (cats only) TOPICAL THERAPY Doxycycline gel INJECTABLE Cefovecin ³	ORAL Amoxicillin-clavulanic acid Clindamycin Metronidazole (anaerobes only) Pradofloxacin (cats only) TOPICAL THERAPY Doxycycline gel INJECTABLE Cefovecin ³	ORAL Amoxicillin-clavulanic acid Cefpodoxime proxetil Chloramphenicol Clindamycin Cephalexin INJECTABLE Cefazolin Cefovecin ³	ORAL Amoxicillin-clavulanic acid Cefpodoxime proxetil Cephalexin Clindamycin Ormetoprim-sulfadimethoxine Trimethoprim-sulfonamide Tetracycline (doxycycline, minocycline) TOPICAL THERAPY Chlorhexidine (2-4%) antiseptic shampoos, sprays, mousses and wipes, applied daily when used as the sole treatment	ORAL Amoxicillin Amoxicillin-clavulanic acid Cephalexin Ormetoprim-sulfadimethoxine Trimethoprim-sulfonamide Tetracycline (doxycycline, minocycline) TOPICAL THERAPY Chlorhexidine (2-4%) antiseptic shampoos, sprays, mousses and wipes, applied daily when used as the sole treatment	ORAL Amoxicillin Amoxicillin-clavulanic acid Cefpodoxime proxetil Cephalexin Ormetoprim-sulfadimethoxine Trimethoprim-sulfonamide Cefazolin Cefovecin INJECTABLE Ampicillin-sulbactam TOPICAL THERAPY Chlorhexidine (2-4%) antiseptic shampoos, sprays, mousses and wipes, applied daily when used as the sole treatment	
Resistant/ Severe Infections	ORAL Amoxicillin-clavulanic acid Cefpodoxime proxetil Chloramphenicol Fluoroquinolones ¹ Ormetoprim-sulfadimethoxine Trimethoprim-sulfonamide TOPICAL ANTIMICROBIALS For resistant <i>Pseudomonas aeruginosa</i> or methicillin-resistant <i>Staphylococcus</i> spp., highly concentrated compounded preparations are sometimes needed for topical use. Use cautiously because neurological disease and ocular problems have been associated with treatment. For additional recommendations to treat methicillin-resistant <i>Staphylococcus</i> spp. see the skin infections section.	ORAL Chloramphenicol INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Second-generation cephalosporins (cefoxitin) Third-generation cephalosporins (ceftazidime) Penicillin-Beta-Lactamase Inhibitor (piperacillin-tazobactam)	ORAL Metronidazole plus Amoxicillin-clavulanic acid or Fluoroquinolone ¹ Clindamycin plus Amoxicillin-clavulanic acid or Fluoroquinolone ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	ORAL Fluoroquinolones ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	ORAL Fluoroquinolones ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	ORAL Fluoroquinolones ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	ORAL Fluoroquinolones ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	ORAL Fluoroquinolones ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	
Antibiotic Selection Should Be Based on Culture and Sensitivity Testing	ORAL Amoxicillin-clavulanic acid Cefpodoxime proxetil Chloramphenicol Fluoroquinolones ¹ Ormetoprim-sulfadimethoxine Trimethoprim-sulfonamide TOPICAL ANTIMICROBIALS For resistant <i>Pseudomonas aeruginosa</i> or methicillin-resistant <i>Staphylococcus</i> spp., highly concentrated compounded preparations are sometimes needed for topical use. Use cautiously because neurological disease and ocular problems have been associated with treatment. For additional recommendations to treat methicillin-resistant <i>Staphylococcus</i> spp. see the skin infections section.	ORAL Chloramphenicol INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Penicillin-Beta-Lactamase Inhibitor (piperacillin-tazobactam)	ORAL Metronidazole plus Amoxicillin-clavulanic acid or Fluoroquinolone ¹ Clindamycin plus Amoxicillin-clavulanic acid or Fluoroquinolone ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	ORAL Metronidazole plus Amoxicillin-clavulanic acid or Fluoroquinolone ¹ Clindamycin plus Amoxicillin-clavulanic acid or Fluoroquinolone ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	ORAL Fluoroquinolones ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	ORAL Fluoroquinolones ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	ORAL Fluoroquinolones ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	ORAL Fluoroquinolones ¹ INJECTABLE Aminoglycosides (amikacin, gentamicin) Carbapenems (imipenem, meropenem) Third-generation cephalosporins (ceftazidime) Methicillin-resistant Staphylococcus spp. Treatment should be guided by culture and susceptibility testing. Options can include: Chloramphenicol Fluoroquinolones ¹ Rifampin Trimethoprim-sulfonamides Tetracyclines (doxycycline, minocycline) Linezolid Vancomycin (injection) can be considered when there are no other options.	
Other Considerations	Malassezia Topical Antifungal Clotrimazole Miconazole Terbinafine Otodectes Topical Therapy Moxidectin Selamectin Systemic Therapy (consult susceptibility test first, before using a systemic drug for treatment.) INJECTABLE Carbapenems (imipenem, meropenem) Ceftazidime Systemic Therapy (as an adjunct to topical therapy; e.g., middle ear involvement) Hypersensitivity and Allergy	Giardia Albendazole Fenbendazole Metronidazole Trichostrongylus axei (cats) Ronidazole ² Coccidiosis Sulfonamides or trimethoprim-sulfonamide, or ormetoprim-sulfadimethoxine Campylobacter Fluoroquinolones ¹ Azithromycin Clindamycin (Warn owners that this can be zoonotic) Salmonella Fluoroquinolones ¹ , amoxicillin-clavulanate, trimethoprim-sulfonamide, or a 3rd-generation cephalosporin Clostridium Metronidazole, amoxicillin, a macrolide, or clindamycin	Fungal Infection Systemic Therapy Itraconazole Ketocanazole Posaconazole Mycoplasma Infection Tetracycline (doxycycline, minocycline) Fluoroquinolones ¹ Macrolides (azithromycin, clarithromycin) Note: Many lower respiratory infections can be a mixed-population and broad coverage for gram-positive, and gram-negative bacteria may be needed. Results from a transtracheal wash may not be representative of all bacteria present.	Viral Infection (eg, FIV, FHV), especially in cats Note: Culture of oral infections may not be rewarding because there may be a mixed population of bacteria. Anaerobic bacteria and <i>Pasteurella multocida</i> may be the predominant cause. Therefore select antibiotics for these bacteria for initial treatment (eg, amoxicillin-clavulanate, pradofloxacin cats only, or clindamycin), in addition to other dental procedures that may be necessary.	Borreliosis (joint infection); see Bloodborne Infections Fungal Osteomyelitis (blastomycosis, coccidioidomycosis) Systemic Therapy Amphotericin B Itraconazole Ketoconazole Other considerations: Diskospondylitis is often difficult to culture, unless with an invasive procedure. Most are caused by <i>Staphylococcus</i> spp. therefore, agents active against <i>Staphylococcus</i> should be an initial consideration (eg, oral cephalosporin, amoxicillin-clavulanate, clindamycin).	Deep Penetrating Wounds (Consider anaerobic coverage) Malassezia Infection Topical Therapy Lime sulfur Miconazole Terbinafine Selenium sulfide Ketocanazole Systemic Therapy Itraconazole Ketocanazole Terbinafine Parasites (mites and fleas) Treat appropriately with approved products. Allergy Treat appropriately with approved products.	Chlamydia Infection Tetracycline (doxycycline, minocycline) Azithromycin Fluoroquinolone ¹ Fungal Nasal Aspergillus Topical Antifungal Clotrimazole Enilconazole Systemic Therapy Itraconazole Posaconazole Mycoplasma Infection Systemic Therapy Tetracyclines (doxycycline, minocycline) Fluoroquinolones ¹ Macrolides (azithromycin, clarithromycin) Note: Feline upper respiratory infections may have a viral component, which may not require antibacterial therapy. Antiviral treatment may be required for severe infection.	Candida (Fungal) Infection Fluconazole Leptospirosis (<i>Leptospira</i> spp.) Amoxicillin Amoxicillin-clavulanic acid Doxycycline Mycoplasma Infection Fluoroquinolones ¹ Macrolides (azithromycin, clarithromycin) Prostate Fluoroquinolones ¹ Ormetoprim-sulfadimethoxine Trimethoprim-sulfonamide	

Drug	Administration Route	Dose(s)	Dose Interval	Other Considerations
Amikacin	IV, IM, SC	Dog: 15-30 mg/kg Cat: 10-14 mg/kg	q24h	Use cautiously in dehydrated patients or those with kidney disease.
Amoxicillin	PO	22 mg/kg	q12h	For urinary tract infections, some isolates of the <i>Enterobacteriaceae</i> may be susceptible if urine breakpoint is used. Consult microbiology laboratory for test interpretation.
Amoxicillin-clavulanic acid	PO	Dog: 12.5-25 mg/kg Cat: 62.5 mg/cat	q12h	Dose listed is based on combined ingredients (amoxicillin plus clavulanic acid). For urinary tract infections, some isolates of the <i>Enterobacteriaceae</i> may be susceptible if urine breakpoint is used. Consult microbiology laboratory for test interpretation.
Amphotericin B	—	—	—	Refer to the Drug Handbook reference listed at the bottom of the table for dosing information.
Ampicillin	IM, SC, IV	10-20 mg/kg 20-40 mg/kg	q8h	For oral treatment, amoxicillin, or amoxicillin-clavulanate is preferred.
Ampicillin-sulbactam	IV, IM	10-20 mg/kg	q8h	Dose listed is based on combined ingredients (ampicillin plus sulbactam).
Azithromycin	PO	Dog: 3-5 mg/kg Cat: 5-10 mg/kg	q24-48h	Start with 10 mg/kg once per day, for 5-7 days, then decrease to every other day.
Cefadroxil	PO	Dog: 22-30 mg/kg Cat: 22 mg/kg	Dog: q12h Cat: q24h	For urinary tract infections, isolates of the <i>Enterobacteriaceae</i> may be susceptible if urine breakpoint is used. Consult microbiology laboratory for test interpretation. Check cefadroxil availability. Not available in all areas. If the organism is susceptible, cephalaxin can be used instead.
Cefazolin	IV, IM	25 mg/kg	q6h	
Cefotaxime	IV, IM	30 mg/kg	q8-12h	
Cefotetan	IV, IM, SC	30 mg/kg	q8h	
Cefovecin	SC	8 mg/kg	q14d	
Cefoxitin	IV, IM	30 mg/kg	q6-8h	
Cefpodoxime proxetil	PO	Dog: 5-10 mg/kg	Dog: q24h	Cat: Dose not established
Ceftazidime	IV, IM, SC	25 mg/kg	q6 or 8h	Use a 6 hour interval for treatment of <i>Pseudomonas aeruginosa</i> , but a 8 hour interval for other isolates.
Ceftiofur	SC	Dog: 4.4 mg/kg Cat: Not recommended	Dog: q24h	Use for treating lower urinary tract infections only.
Cephalexin	PO	25 mg/kg	q12h	For urinary tract infections, isolates of the <i>Enterobacteriaceae</i> may be susceptible if urine breakpoint is used. Consult microbiology laboratory for test interpretation.
Chloramphenicol	PO	Dog: 40-50 mg/kg Cat: 12.5-20 mg/kg	Dog: q8h Cat: q12h	This drug can be toxic to humans; wear gloves when administering and avoid human contact with the drug.
Ciprofloxacin	PO	25-30 mg/kg	q24h	Human-labeled fluoroquinolone; whenever possible, consider a veterinary labeled fluoroquinolone first. Oral absorption is inconsistent in dogs and low in cats (not recommended for cats). It may not be effective in dogs unless the MIC of the isolate is less than 0.12 mcg/mL.
Clarithromycin	PO	7.5 mg/kg	q12h	
Clindamycin	PO	Dog: 11-22 mg/kg Cat: 11-33 mg/kg	Dog: 11 mg/kg q12h or 22 mg/kg q24h Cat: q24h	
Doxycycline	PO	5 mg/kg	q12h	If doxycycline is not available, minocycline can be used instead.
Enrofloxacin	PO, IM	Dog: 5-20 mg/kg Cat: 5 mg/kg	q24h	Avoid administering a high dose to cats, and avoid use in young dogs.
Erythromycin	PO	10-20 mg/kg	q8-12h	Not frequently used because of lack of availability and high incidence of vomiting. Consider azithromycin as a substitute.
Fluconazole	PO	Dog: 10-12 mg/kg Cat: 50 mg/cat	q24h	For <i>Malassezia</i> , lower doses can be used (consult reference).
Gentamicin	IV, IM, SC	Dog: 9-14 mg/kg Cat: 5-8 mg/kg	q24h	Use cautiously in dehydrated patients or those with renal disease.
Imipenem-clastatin	IM, IV	5 mg/kg	q6-8h	Imipenem is unstable after reconstitution. Consult label information for stability data.
Itraconazole	PO	10 mg/kg	q12h	For <i>Malassezia</i> and dermatophytes, lower doses can be used. For cats, the oral solution can be used at a dose of 5 mg/kg per day, on alternating weeks.
Ketoconazole	PO	Dog: 10-15 mg/kg Cat: 5-10 mg/kg	q12h	For <i>Malassezia</i> , lower doses can be used (consult reference).
Levofloxacin	Oral	Dogs: 25 mg/kg	24h	Not approved for animals. Use in dogs is extralabel.
Lincomycin	PO	10 mg/kg	q12h	Lincomycin is rarely available for dogs and cats. Clindamycin may be used as a substitute.
Linezolid	PO	10 mg/kg	q12h	Linezolid is a human-label antibiotic that should be used in animals only when susceptibility test results indicated that it is the only reasonable option
Marbofloxacin	PO	2.2-5.75 mg/kg	q24h	Avoid use in young dogs.
Meropenem	IV, IM, SC	10 mg/kg 30 mg/kg	q8h q8h	Dosage for <i>Enterobacteriaceae</i> (<i>E. coli</i> , <i>K. pneumoniae</i>). Dosage for <i>Pseudomonas aeruginosa</i> . Meropenem is a human-label antibiotic that should be used in animals only when susceptibility test results indicated that it is the only reasonable option. After reconstitution it is stable for 3 days. Avoid high doses or there is a risk of neurotoxicity.
Metronidazole	PO	Dogs 12 mg/kg Dogs 15 mg/kg Cats 10-15 mg/kg	q8h q12h q24h	
Minocycline	PO	Dogs 5 mg/kg Cats 8.8 mg/kg	q24 q24h	
Neomycin	PO	10-20 mg/kg	q12h	Not recommended as an oral treatment for diarrhea.
Orbifloxacin	PO	2.5-7.5 mg/kg 7.5 mg/kg 2.5 - 7.5 mg/kg	q24h q24h q24h	Dosage for tablets (dog or cat, avoid in young dogs) Dosage for oral suspension (cats) Oral suspension (dogs, avoid in young dogs)
Ormetoprim-sulfadimethoxine	PO	Dog: 13.5 mg/kg	Dog: q24h	Cat dose is not established.
Piperacillin-Tazobactam	IV	50 mg/kg	q6h	Alternative dose: 4 mg/kg bolus, followed by 3.2 mg/kg per hour.
Posaconazole	PO	Dog: 5 mg/kg Cat: See comment section for dosing	q48h or q72h	Dosage for sustained-release tablets, dogs only Dosage for oral suspension: 30 mg/kg, loading dose followed by 15 mg/kg q48h, cats only
Pradofloxacin	PO	Cats, oral suspension: 5-7.5 mg/kg	q24h, not to exceed 7 days	Only oral suspension for cats is available in U.S. Approved in Canada and Europe for dogs; not approved for dogs in U.S.
Rifampin	PO	5 mg/kg	q12h	Rifampin can cause liver injury in dogs. Monitor liver enzymes and bilirubin regularly, starting 7 days after initiating treatment.
Ronidazole	PO	Cat: 30-60 mg/kg	Cat: q24h	Not registered in the U.S. (must be compounded). Dog dose not established.
Tetracycline/hydrochloride	PO	15-20 mg/kg	q8h	Tetracycline formulations are usually not available for dogs and cats. Doxycycline or minocycline can be substituted for oral treatment.
Tylosin	PO	7-15 mg/kg	q12-24h	Not approved in the U.S. for small animals (it is a large-animal product); can be added to a dog's food for controlling diarrhea.
Vancocycin ^a	IV	Dog: 15 mg/kg Cat: 12 mg/kg	q8h	Administer by slow infusion; use cautiously in dehydrated patients or those with kidney disease. Vancocycin is a human-label antibiotic that should be used in animals only when susceptibility test results indicated that it is the only reasonable option.
Voriconazole	PO	Dog: 5-6 mg/kg Cat: See comment section for dosing	q12h	Cat dosage - 25 mg per cat as an initial dose, followed by 12.5 mg every other day. Use cautiously because neurologic disease and ocular problems have been associated with treatment.