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Protect ME

Practice name

Practice Policy: Dose and routes of administration of common antimicrobials

This is an example policy. YOU CAN EDIT THIS BOX to include specific instructions to staff members. Members are encouraged to develop their own policies and should review the literature and the current marketing authorisation. Note that some marketing authorisations are inconsistent with responsible antimicrobial usage due to the potential to cause sub-therapeutic dosing or administration for a single day. Adapted from : Haggett EF, Wilson WD. Equine Veterinary Education. 2008. 433-448.
Once you have completed your documents you should distribute them around your practice. If you choose to SUBMIT this data it will be used by BEVA to demonstrate the professions engagement and to improve the documents for the future.

Members must establish policies for use in food producing animals

Colours represent likely use:

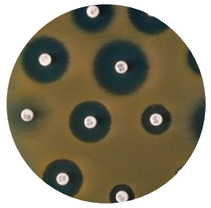
- Green – first line antimicrobials
- Blue – alternatives
- Orange – PROTECTED

Drug	Dose Per kg	Route	Dosing interval	Spectrum +ve	Spectrum -ve	Spectrum AnO2	Notes
Sodium penicillin	20,000iu*	IV	6-8 hours*	++	+	++	Wide distribution, poor penetration into CNS, abscess, sites or necrosis
Procaine penicillin	20,000iu*	IM	12 hours*	++	+	++	
Benzathine penicillin (Long Acting)	Fails to reach MIC - avoid						
Ceftiofur	2mg adults 5mg Foals	IM IV*	12 hours*	+++	++	++	PROTECTED
Cefquinome	1mg	IM IV	12 hours foals 24 hours adults	+++	++	++	PROTECTED
Oxytetracycline	5mg	IV	12 hours*	++	++	+	NB also Ehrlichia, richetsia and anaplasma
Doxycycline*	10mg	PO	12 hours*	++	++	+	
Trimethoprim / Sulphadiazine	30mg 30mg	IV PO	12 hours* 12 hours*	++	++	-	Ineffective in S equi equi. Oral bioavailability reduced in the presence of food
Gentamicin	6.6mg Adults 10mg Foals	IV	24 hours	+	+++	-	Note dose in the neonate should be adjusted to reflect high total body water
Streptomycin	20mg	IM	24 hours	+	+	-	Resistance common
Neomycin	5mg	IM	24 hours	+	++	-	Combined solution only provides 10,000iu/kg penicillin every 24 hours
Rifampin*	5mg	PO	12 hours	+++	+	++	Always use in combination (not quinolones)
Azithromycin*	10mg	PO	24 hours	+++	+	+	FOALS ONLY
Enrofloxacin	7.5mg 5mg	PO IV	24 hours 24 hours	+	+++	-	PROTECTED
Metronidazole*	25mg 15mg	PO IV	12 hours 12 hours	-	-	+++	Not in food producing animals
Drug	Dose	Route	Frequency	-	-	-	Other drug

+++ Effective against most important pathogens, including staphylococci for Gram positive and pseudomonas for Gram negative bacteria
++ Effective against many important bacteria
+ Some effect, but many clinically significant bacteria may not be susceptible
- Poor effectiveness
* indicated a drug, dose, route or dosing frequency that is not listed in the marketing authorisation for that product.

Protect ME - Responsible antimicrobial use policy





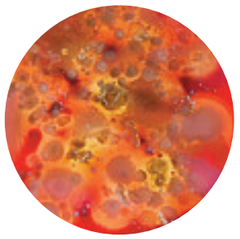


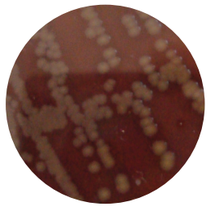
Condition	FIRST LINE	ALTERNATIVES	Notes
UPPER RESPIRATORY TRACT DISEASE			
Strangles Formed abscess Prophylaxis Airway obstruction	Not indicated Penicillin Penicillin	Penicillin Trimethoprim & Sulpha Oxytetracycline	TMS is contraindicated since inactivated in the presence of pus. ACVIM consensus statement
Primary Sinusitis	Penicillin	Trimethoprim & Sulphadiazine	NB secondary sinusitis see GI disease TMPS inactivated by pus, so must lavage as well
Guttural pouch empyema / chondroids	Penicillin	Oxytetracycline / Doxycycline	S equi is most common implicated bacteria
Other URT diseases	Trimethoprim & Sulphadiazine	Oxytetracycline	
LOWER RESPIRATORY TRACT DISEASE			
Primary pneumonia	Penicillin & Gentamicin	Oxytetracycline & Metronidazole	Primary pneumonia is uncommon Affected animals usually systemically ill
Secondary pneumonia **eg RAO/COPD**	Trimethoprim & Sulphadiazine	Oxytetracycline / Doxycycline	Secondary pneumonia more common than primary in UK
Rhodococcus pneumonia	Rifampin & Azithromycin	Rifampin & Doxycycline (10mg/kg BID PO)	ACVIM consensus statement 2011
WOUNDS			
Contaminated wounds with synovial sepsis	Penicillin & Gentamicin	Oxytetracycline & Metronidazole	
Contaminated wound with open fracture	Penicillin & Gentamicin & Metronidazole	Penicillin & Gentamicin & Metronidazole	
Contaminated wounds on limbs	Trimethoprim & Sulphadiazine	Oxytetracycline / Doxycycline	
Contaminated wounds (non complicated)	Not indicated	Trimethoprim / Sulphadiazine	
SKIN / HOOF			
Cellulitis	Trimethoprim & Sulphadiazine	Oxytetracycline / Doxycycline	
Subsolar abscess	Not indicated	Oxytetracycline / Doxycycline	Drainage alone usually curative
Subsolar abscess with P3 involvement	Oxytetracycline / Doxycycline	Penicillin & Gentamicin & Metronidazole	If recurrent, rule out keratoma
Pyoderma	Trimethoprim & Sulphadiazine	Oxytetracycline / Doxycycline	
GASTROINTESTINAL			
Periodontal disease	Trimethoprim & Sulphadiazine	Oxytetracycline / Doxycycline	
Periapical abscessation	Oxytetracycline / Doxycycline	Penicillin & Neomycin	
Acute diarrhoea	Not indicated	Penicillin & Gentamicin	AM use is controversial
Bacterial cholangiohepatitis	Trimethoprim & Sulphadiazine	Penicillin & Gentamicin	Biopsy sample should be submitted for culture
Peritonitis MILD	Trimethoprim & Sulphadiazine	Oxytetracycline / Doxycycline	
Peritonitis SEVERE	Penicillin & Gentamicin	Penicillin & Gentamicin & Metronidazole	

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NB THIS POLICY DOES NOT APPLY TO ANIMALS DESTINED TO ENTER THE FOOD CHAIN

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Condition	FIRST LINE	ALTERNATIVES	Notes
UROGENITAL			
Cystitis	Trimethoprim & Sulphadiazine	Penicillin & Gentamicin	
Pyelonephritis	Trimethoprim & Sulphadiazine	Penicillin & Gentamicin	
Post foaling endometritis	Penicillin & Neomycin	Penicillin & Gentamicin	Administer Neomycin with penicillin once daily Administer procaine penicillin once daily
Post covering endometritis	Penicillin (IU)	Penicillin & Gentamicin (IU)	
Mastitis	Trimethoprim & Sulphadiazine	Penicillin ± Neomycin	Administer Neomycin with penicillin once daily Administer procaine penicillin once daily
OCULAR			
Conjunctivitis	Cloxacillin	Neosporin	
Mild corneal ulceration	Chloramphenicol	Gentamicin	
Severe corneal ulceration	Gentamicin & Chloramphenicol	Ciprofloxacin	
Melting corneal ulceration	Ciprofloxacin		Consider keratomycosis
MISCELLANEOUS			
Endocarditis	Penicillin & Gentamicin	Trimethoprim & Sulphadiazine & Rifampin	
Neutropenia <2.5x10^9/l Pyrexia of unknown origin	Trimethoprim & Sulphadiazine	Penicillin & Gentamicin	Avoid antimicrobials where viral cause is suspected
Neutropenia <1x10^9/l	Penicillin & Gentamicin	Penicillin & Gentamicin & Metronidazole	Avoid antimicrobials where viral cause is suspected
NEONATE < 3 weeks			
Neonatal pneumonia	Cefquinome*	Penicillin & Gentamicin	*PROTECTED but justified in neonate due to high mortality
Septic arthritis	Penicillin & Gentamicin	Oxytetracycline	
Patent urachus	Trimethoprim & Sulphadiazine	Penicillin & Gentamicin	
Umbilical infection	Trimethoprim & Sulphadiazine	Penicillin & Gentamicin	
SEPSIS	Cefquinome*	Penicillin & Gentamicin	Infection + 2 of: tachycardia, abnormal Temp, Resp, WBC
SEVERE SEPSIS	Cefquinome*	Penicillin & Gentamicin & Metronidazole	Defined as sepsis with organ dysfunction, hypoperfusion, or hypotension
Normal foal post foaling	Not indicated	Trimethoprim & Sulphadiazine	Avoided except for metaphylaxis
Normal foal with unobserved foaling	Trimethoprim & Sulphadiazine	Oxytetracycline	
Premature/dysmature	Trimethoprim & Sulphadiazine	Penicillin & Gentamicin	
Meningitis	Trimethoprim & Sulphadiazine	Oxytetracycline	
PROPHYLAXIS	Pre-operative	Postoperative	Duration of post operative treatment
Clean surgery	Penicillin	Penicillin TID IV or BID IM	24 hours
Contaminated surgery	Penicillin & Gentamicin	Penicillin & Gentamicin	5 days
High risk surgery	Penicillin & Gentamicin	Penicillin & Gentamicin	10 days then reassess. Consider TMP-S if longer treatment required

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