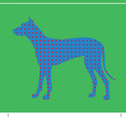
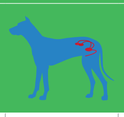
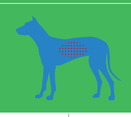
FECAVA Recommendations for Appropriate Antimicrobial Therapy

FECAVA
Federation of European Companion Animal Veterinary Associations

Body system	SKIN					RESPIRATORY				UROGENITAL			ORAL	GASTRO-ENTERIC		ABDOMINAL		BLOOD	ORTHOPEDIC	
						Upper	Lower													
																				
Common conditions	Surface pyoderma (microbial overgrowth, fold pyoderma, acute moist dermatitis)	Superficial pyoderma (bacterial folliculitis, impetigo)	Deep pyoderma (furunculosis, cellulitis)	Otitis externa	Wound/soft tissue infection	Rhinitis	Acute bronchitis (e.g kennel cough)	Pneumonia	Pyothorax	Upper urinary tract infection (pyelo-nephritis)	Lower urinary tract infection	Pyometra	Oral infection (e.g gingivitis, stomatitis, periodontitis)	Gastroenteritis	Anal gland abscessation	Hepatic disease (cholecystitis, cholangitis, cholangie-hepatits)	Peritonitis	Sepsis	Septic arthritis	Osteomyelitis
Cytology and culture	from impression smears, tape strips	& from pustule (if possible)	& following biopsy or by aspiration (not from surface exudate)	of ear swabs obtained after preliminary cleaning not relevant due to topical therapy	impression smears for surveillance of surgical site infections or if complications /suspicion of multi-resistant bacteria (e.g MRSP, MRSA, ESBL)	Usually not indicated, limited clinical significance due to presence of commensal flora Samples collected by biopsy may be considered in chronic cases	Usually not indicated, limited clinical significance due to presence of commensal flora	Usually not indicated since broncho-alveolar lavage is difficult to perform effectively	& on aspirate by thoraco-centesis (both aerobic and anaerobic incubation)	& of urine collected (by cystocentesis)	if recurrent infection (urine collected by cystocentesis)	Usually not indicated (unless rupture, see peritonitis)	Not indicated, limited clinical significance due to presence of commensal flora	Usually not indicated On specific suspicion submit for *Salmonella*, *Campylobacter* and toxigenic clostridia	& of wound cavity in severe tissue damage &/or fever	& of aspirate or biopsy	& of aspirate obtained by paracentesis (both aerobic & anaerobic incubation)	& of multiple blood samples taken over 24-hour period (both aerobic and anaerobic incubation)	& of synovial aspirate or biopsy (synovial mem-brane)	Radiography & of bone biopsy
Likely pathogen	*Staphylo-coccus pseudinter-medius* (Malassezia sometimes involved)	*Staphylo-coccus pseudinter-medius*	*Staphylo-coccus pseudinter-medius*	Cocci (mainly *Staphylo-coccus pseudinter-medius*), rods (mainly *Pseudo-monas*), and/or yeasts, (*Malassezia*)	Variable	Variable	Viral	Variable	Variable (including anaerobes)	*Escherichia coli*	*Escherichia coli*	*Escherichia coli*	Variable (including anaerobes)	Mainly viruses (or parasites in young animals)	Variable	Unknown or variable	Variable	Variable (including anaerobes)	Variable	Variable
Empirical anti-microbial choice		Clindamycin or cephalexin or TMPS	Cephalexin while pending	Antiseptics often sufficient Topical treatment e.g cocci use fusidic acid, rods use polymyxin B, yeasts use miconazole	Cleansing and debridement coupled with modern wound dressings are often sufficient Systemic therapy based on may be indicated in severe tissue damage &/or fever	With secon-dary chronic purulent rhinitis consider doxycycline		Doxycycline or cephalexin or amoxicillin or amoxicillin-clav	If cocci use amoxicillin-clav, if rods use flouro-quinolones while pending	Amoxicillin-clav or fluoro-quinolone while pending. If signs of systemic infection see sepsis	Amoxicillin or TMPS while pending			Self-limiting, If signs of systemic infection see sepsis	In severe tissue damage &/or fever use TMPS while pending	Doxycycline or cephalexin	Fluoro-quinolone & penicillin G or amoxicillin or ampicillin IV while pending	Fluoro-quinolone & penicillin G or amoxicillin or ampicillin IV while pending	Clindamycin or cephalexin or amoxicillin-clav	Clindamycin while pending
Remarks on therapy	Topical therapy with antimicrobial shampoos, lotions, spray gels, creams, etc.	Consider topical therapy alone (e.g chlorhexidine) if infection is mild Treat for 7 days beyond clinical resolution	Always combine with topical therapy (e.g chlorhexidine shampoo) Treat for 2 weeks beyond clinical resolution	Prior cleansing is essential Use gluco-corticoid to reduce swelling and inflammation Underlying causes must be investigated and resolved Systemic therapy is not relevant	Topical antimicrobials are usually not recommended with granula-ting wounds	Always address primary cause in chronic purulent rhinitis	In secondary pneumonia suspect *Bordetella bronchiseptica* and treat with doxycycline or TMPS or amoxicillin-clav H	H In severe* cases use a fluoro-quinolone & penicillin G or amoxicillin or ampicillin IV Amoxicillin-clav 3 times daily	Drainage and lavage are essential for clinical resolution Amoxicillin-clav 3 times daily	H		& H In severe* cases use flouro-quinolones Medical treatment (occasional, not recommended) 4-5 days fluoro-quinolones (or TMPS) and e.g. aglepristone	and/or dental treatment If signs of systemic infection (fever, lymph-adenopathy) use clindamycin R		Drainage Removal if recurrence	H	H Correction of primary cause (if possible), copious lavage essential	H	Copious lavage (aseptic) of joint space with saline or Ringer´s lactate Amoxicillin-clav 3 times daily	Look for primary cause Remove implants if possible R

This table provides examples and should not be considered comprehensive. Local resistance patterns have to be taken into consideration. Use an antimicrobial with shown bioavailability at target organ and use as narrow spectrum as possible. Always follow national legislation.

= Cytology
= Culture and antimicrobial susceptibility test
H = Hospitalization recommended
= Antimicrobial therapy not indicated
= Surgery
R = Consider referral to specialist

ESBL = Extended spectrum beta-lactamase
MRSA = Methicillin-resistant *Staphylococcus aureus*
MRSP = Methicillin-resistant *Staphylococcus pseudintermedius*
TMPS = Trimethoprim-sulfonamide
Severe* = Sign of sepsis