

ESSENTIAL VETERINARY MEDICINES LIST

for food producing animals



PRINTED VERSION

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Founding partners:



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About the founders

The World Veterinary Association is recognised and respected as the trusted and influential voice of global veterinary medicine. We provide global leadership for the veterinary profession and promote animal health and welfare and public health, through advocacy, education, and partnership.

Brooke is a leading international animal health and welfare charity dedicated to improving the lives of working horses, donkeys and mules. Operating in Africa, Asia and Latin America we directly reach over 1.4 million working equids and 4.2 million indirectly. We work with animal owners, animal health systems, communities, service providers, governments, and international organisations to make long-lasting improvements to the lives of animals and their owners.

Essential Veterinary Medicine List for Food Producing Animals

Definition

Essential veterinary medicines are those that satisfy the primary healthcare and welfare needs of food-producing animals, including veterinary medicines and vaccines.

This definition was developed by the World Veterinary Association (WVA) and Brooke Action for Working Horses and Donkeys, based on the World Health Organization (WHO) Essential medicines list and the World Small Animal Veterinary Association's (WSAVA) equivalent essential medicines list for cats and dogs. In this context food-producing animals include animals who play a critical role in food production value chains (classed as working livestock).

Process of development

This list of essential veterinary medicines is presented following development by global groups of species-specific experts. Experts were selected for the groups with a view to ensuring an even geographical spread and both practical and academic credentials. Each species list has been reviewed by an external global expert group relevant to the species

Aim of the list

The list of essential medicines is not intended to define exactly what medicines should be always available in every clinic or field kit, but that veterinarians should be able to access these (medicines) within their health system if required for the prevention and treatment of specific diseases and conditions. The list is intended to be a guide for countries or regional authorities to adopt or adapt, depending on local priority conditions and treatment guidelines, to enable the development or updating of national essential medicine lists. The list can also support registration, streamlined procurement and distribution of sustainable sources of quality-assured veterinary medicines.

This list is **not intended to be a formulary or compendium of all veterinary medicines**. Many countries globally will have access to a far more extensive range of registered products.

Essential medicines are only those needed to provide primary health care.

How to use the list

The definitions of essential veterinary medicines were based on a similar list of essential medicines in human medicine by the WHO and the equivalent list for cats and dogs made by the WSAVA.

The presence of a medicine in the essential medicines list carries no assurance as to the pharmaceutical quality of products containing that medicine. It is the responsibility of the relevant national or regional drug regulatory authority to ensure that each product is of appropriate pharmaceutical quality and that, when relevant, bioequivalent products can be interchangeable. The list does not include information on dosing regimens, drug interactions, contraindications, or potential adverse side-effects. It does not include information on monitoring, record-keeping, disposal, or storage of the medicines.

Essential veterinary medicines are presented within this document and online within a searchable database. The filtering options allow specific species and specific medicines search. You can also type search the name of a medicine. Please visit www.worldvet.org/evml/

This document and the tool will always be available for free use and updated in regular intervals.

For questions, feedback and suggestions please contact evml@worldvet.org

Criteria for selection of essential medicines

The essential medicines on this list were selected with due regard to disease prevalence and public health relevance, evidence of efficacy and safety and comparative cost-effectiveness. These medicines should allow veterinarians to provide proper preventive care and treatment of the most frequent and important diseases in food-producing animals whilst maintaining high animal welfare standards. These medicines are unlikely to be replaceable by other medicines and their absence could compromise public/animal health and welfare. This is a global list and those developing national lists adapted from this will need to consider their country's health risk profile when defining which medicines are core or complementary.

Core medicines

The core list presents a list of minimum medicine needs for primary healthcare services, listing the most efficacious, safe and cost-effective medicines for priority conditions. Priority conditions are selected based on current and estimated future public/animal health relevance, and potential for safe and cost-effective treatment.

Complementary medicines

The complementary list presents essential medicines for priority diseases, for which specialized diagnostic or monitoring facilities, and/or specialist medical care, and/or specialist training are needed. In case of doubt, medicines may also be listed as complementary based on consistently higher cost or less attractive cost-effectiveness in a variety of settings and wide availability in the profession.

Reference

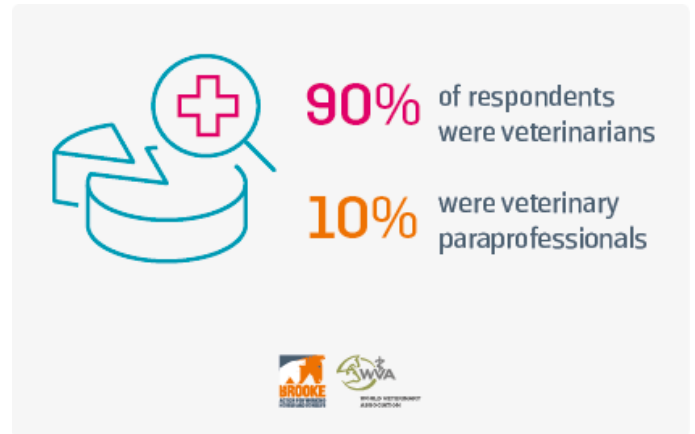
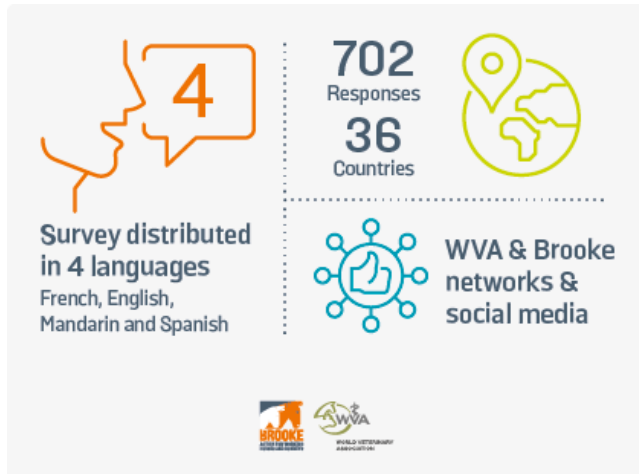
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Access to Veterinary Medicines Global Survey Results

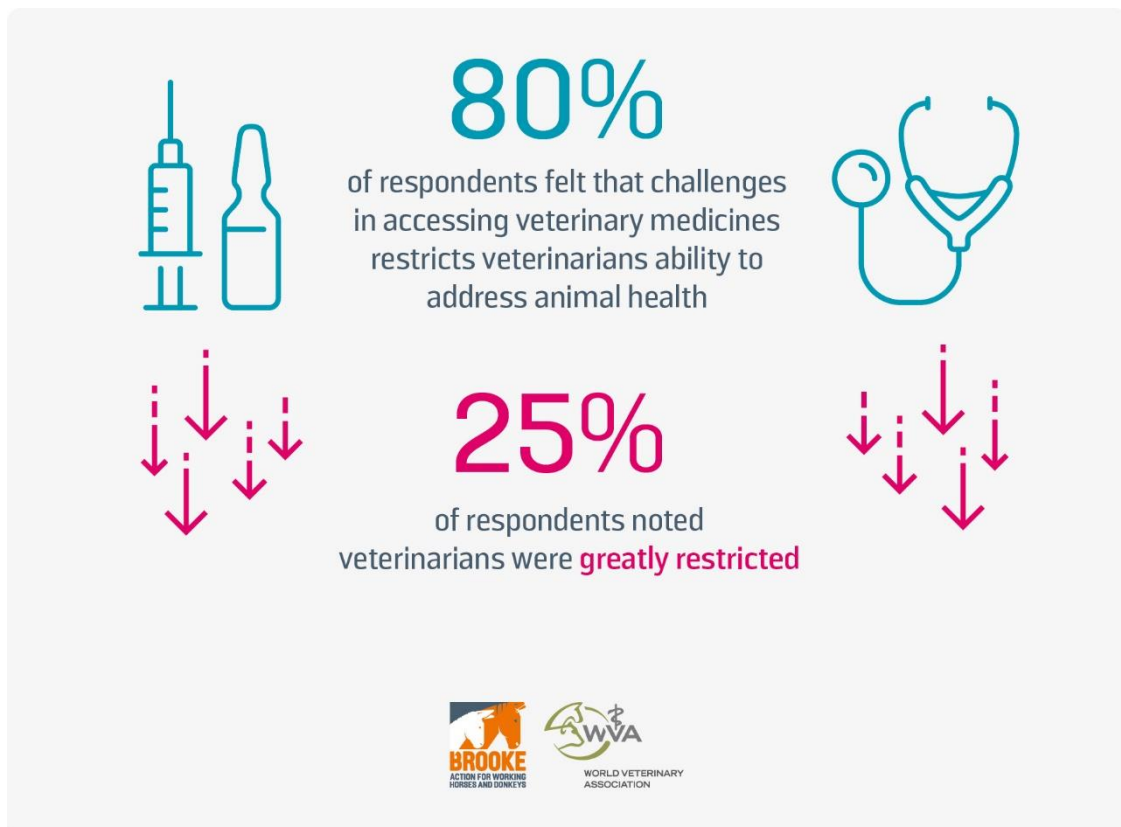
In 2021 Brooke and the WVA conducted a global survey to better understand the experiences of the veterinary profession.

Who took the survey?



We asked:

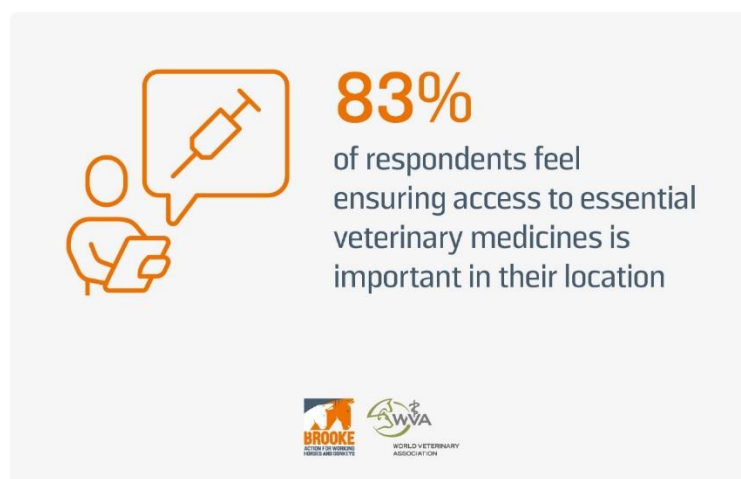
To what extent do veterinarians face challenges in accessing veterinary medicines and vaccines?



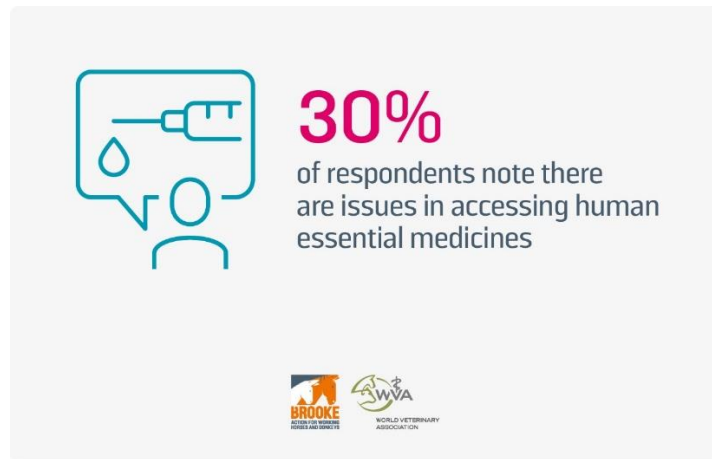
Is there an official essential veterinary medicines list in your country?



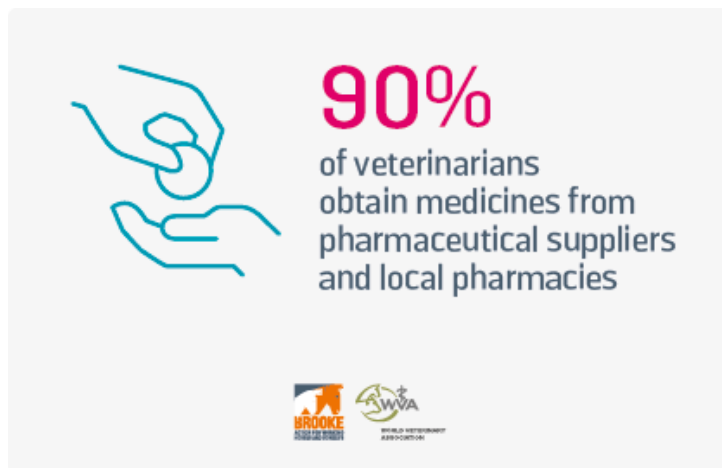
Do you feel that ensuring access to veterinary medicines is an important issue in your location?



Are you aware of any issues in accessing human essential medicines in your location?



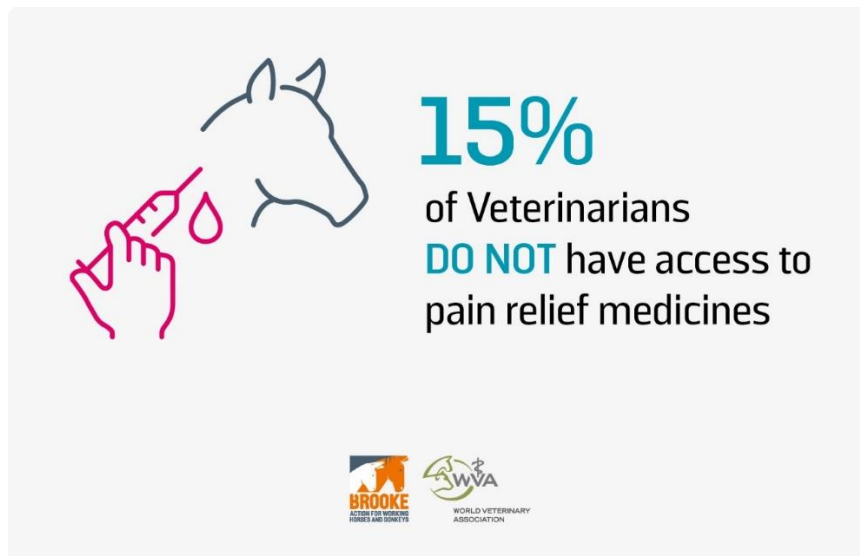
Where do veterinarians usually obtain/purchase veterinary medicines in your location?



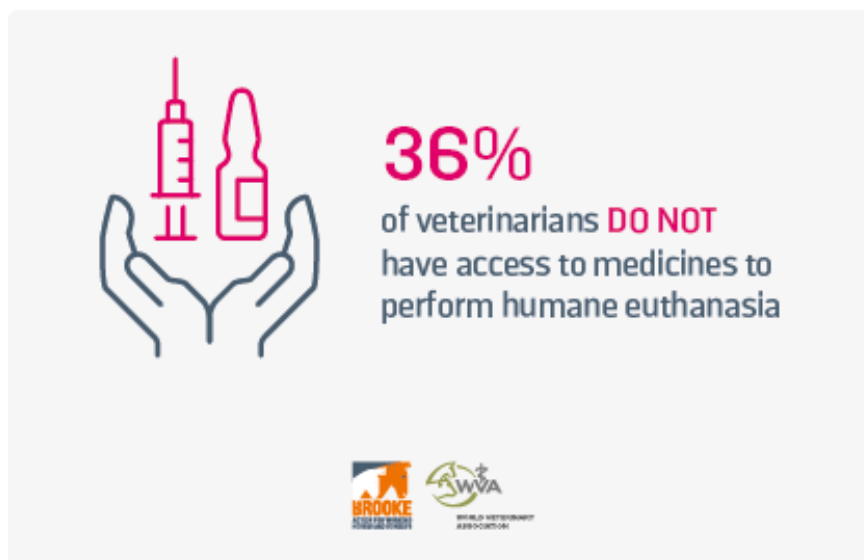
Please highlight key challenges (if any) that veterinarians face in accessing essential veterinary medicines



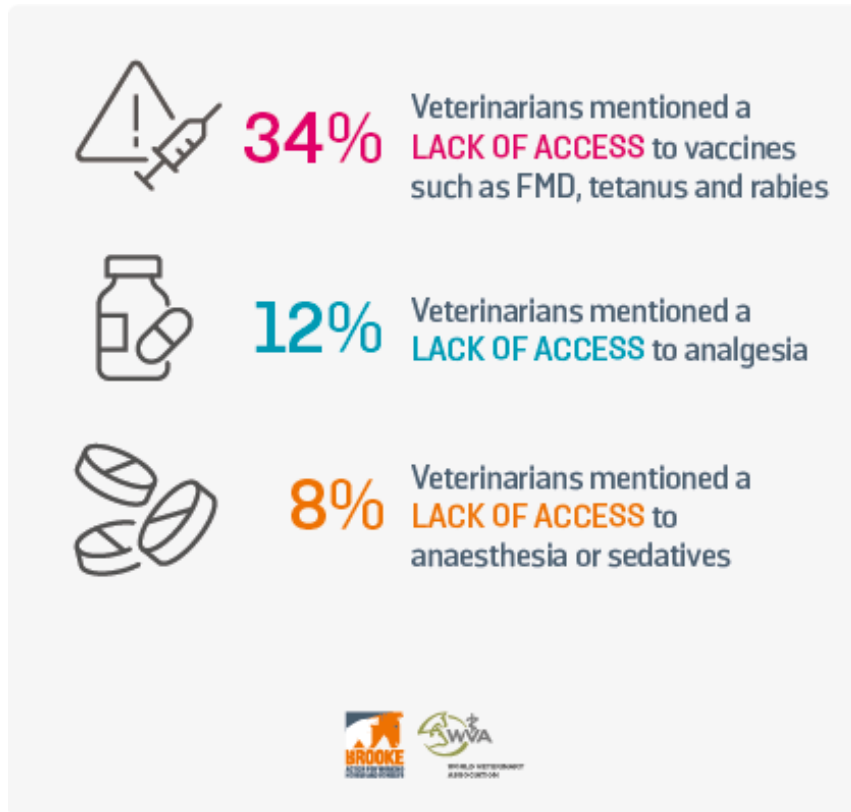
Are medicines to relieve pain and inflammation available in a primary healthcare setting (i.e. community or general practice) within your location?



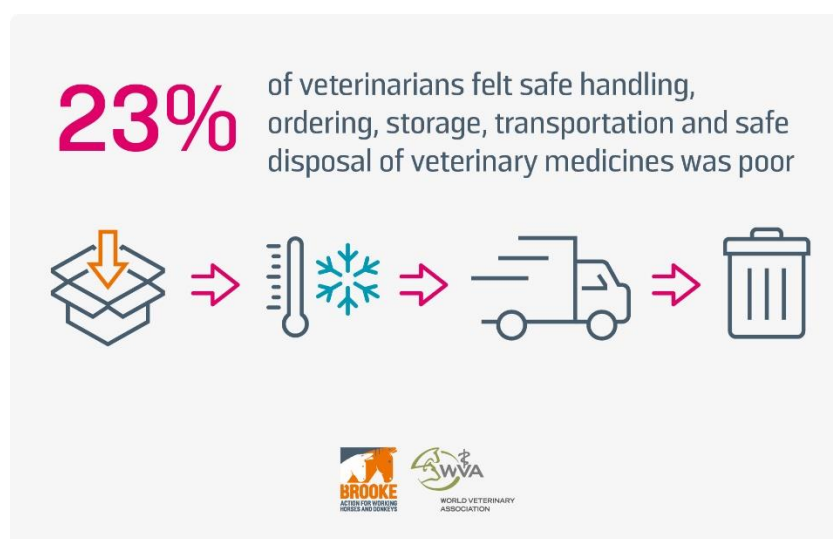
Where euthanasia is legally allowed, are medicines to perform humane euthanasia available to veterinarians in your location?



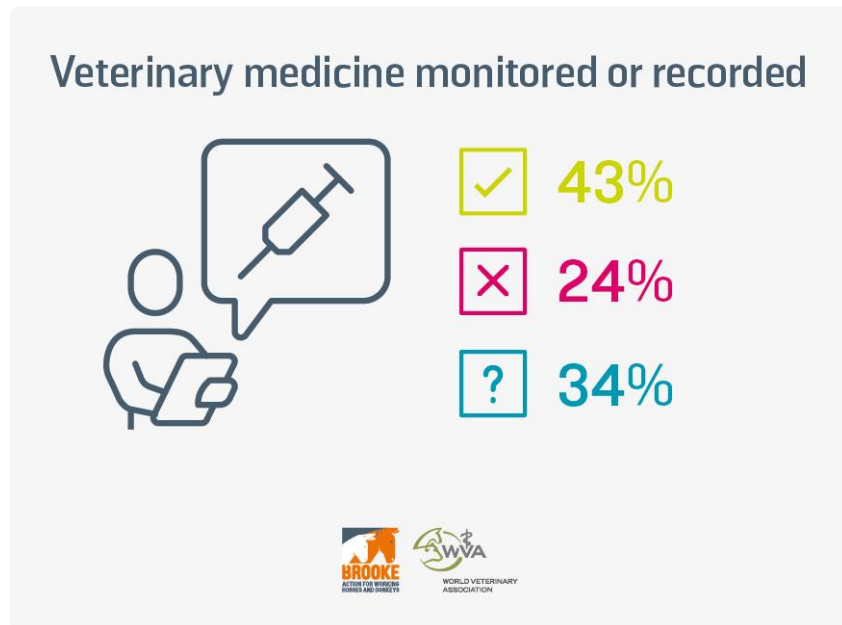
Are there any key medicines or vaccines that you feel veterinarians in your location should have access to and do not?



How would you rate the process/procedures for the safe handling, ordering, storage, transportation and safe disposal of veterinary medicines, within your location?



To your knowledge, is access to essential veterinary medicines monitored or recorded in your country? Yes/No/Unsure



A breakdown and further information on specific medicines and vaccines were shared with the expert working groups.

Essential Veterinary Medicine List for Food Producing Animals

Vaccines

Selection of vaccines from the Model List will need to be determined by each country after consideration of international recommendations, epidemiology and national priorities.

We note the need for vaccines to be polyvalent.

Core Vaccines

Medicine	Large Ruminant	Sheep	Goats	Equids	Pigs
Actinobacillus Pleuropneumonia					•
African Horse Sickness				•	
African Redwater	•				
African Swine Fever					•
Anaplasmosis	•				
Anthrax	•			•	
Arcanobacterium Pyogenes	•				
Asiatic Redwater	•				
Botulism	•				
Bovine Herpes Virus Type 1	•				
Bovine Parainfluenza Virus 3	•				
Bovine respiratory syncytial virus	•				
Bovine Rotavirus	•				
Bovine Viral Diarrhoea	•				
Brucellosis	•				
Calf Diarrhoea (Rotavirus, Coronavirus, K99 E. Coli Bacterin and Cl. Perfringens type C toxoid)	•				
Calf Paratyphoid	•				
Campylobacteriosis	•				
Circovirus (PCV2, PCV3)					•
Classical Swine Fever					•
Clostridium Chavoei	•	•	•		
Clostridium Haemolyticum	•	•			
Clostridium Novyi	•	•			
Clostridium Perfringens		•	•		•
Clostridium Septicum	•	•			
Clostridium Sordellii		•			
Clostridium Tetani	•	•	•	•	
Contagious Bovine Pleuropneumonia	•				

Contagious Caprine Pleuroneumonia (CCPP)			•		
Contagious Pustular Dermatitis (Orf)		•			
Cowdriosis (heart water)	•				
East Coast Fever	•				
Enzootic Abortion		•			
Ephemeral Fever	•				
Equine Herpes Virus				•	
Equine Influenza				•	
Equine Viral Arteris				•	
Erysipelas Rhusiopathiae					•
Escherichia Coli	•				•
Foot and Mouth Disease	•				•
Footrot		•			
Glasserella Parasuis					•
Haemonchus Contortus		•	•		
Improvac (Gonadotropin Releasing Factor)					•
Infectious Bovine Rhinotracheitis Virus	•				
Influenza A					•
Lawsonia Intracellularis					•
Leptospira Pomona					•
Leptospirosis	•				
Lumpy Skin Disease	•				
Mannheimia Haemolytica	•				
Mastitis (Escherichia Coli and Staphylococcus Aureus)	•				
Mastitis (Staphylococcus Aureus)		•	•		
Moraxella Bovis	•				
Mycobacterium Paratuberculosis			•		
Mycoplasma Hyopneumoniae					•
Ovine Pasteurellosis			•		
Parvovirus 1					•
Pasteurella	•	•			•
Peste des Petits Ruminants (PPR)			•		
Porcine Epidemic Diarrhea Virus (PEDv)					•
Porcine Reproductive and Respiratory Syndrome (North American Type 2 and European Type 1) PRRS-NA & EU					•
Pseudorabies/Aujeszky's					•

Rabies Virus	•	•	•	•	
Rift Valley Fever	•				
Rotavirus A, C					•
Salmonella	•				•
Sheep and Goat Pox			•		
Strangles				•	
Tetanus Anti-Toxin	•			•	
Toxoplasmosis		•			
Trichomonosis	•				
Trichophyton Verrucosum	•				

Antiparasitics

Amino-acetonitrile derivatives

Synthetic compounds with high activity against GI nematodes

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Monepantel	Core		•	•		

Aminoglycosides

Antimicrobial agent effective in treatment of Cryptosporidium Parvum

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Paromomycin	Core	•	•	•		

Benzene and substituted derivatives

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Imidocarb dipropionate	Core				•	
Diminazene Aceturate	Core	•			•	
Suramin sodium	Core				•	
Closantel	Core	•				
Niclosamide	Core	•				
Rafoxanide	Core	•				
Rafoxanide	Core			•		
Benzyl benzoate	Core				•	
Ponazuril	Complementary					•

Benzimidazoles

Broad spectrum of activity against roundworms (nematodes) and trematodes, an ovicidal effect, and a wide safety margin.

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Albendazole	Core	•	•	•	•	•
Fenbendazole	Core	•	•	•	•	•
Nitroxynil	Core	•				
Ricobendazole	Core	•				
Mebendazole	Core				•	
Oxfendazole	Core	•			•	
Triclabendazole	Core	•	•	•		

Diazines

Efficacy against roundworms

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Pyrantal	Core				•	•
Pyrimethamine	Complementary				•	

Diazinanes

Spectrum of activity of piperazine is largely against ascarid parasites

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Piperazine	Core				•	

Hydroxyquinolones

Efficacy for treatment and prevention of coccidiosis

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Decoquinatate	Core		•			

Imidazothiazole

Broad spectrum of activity for GI roundworms. Highly effective against the common adult GI nematodes and lungworms and many larval stages in ruminants plus *Ascaris suum* and adult swine nematodes

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Levamisole hydrochloride	Core	•	•	•		•

Isoquinoline

High efficacy against cestode parasites

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Praziquantel	Core	•			•	

Macrocyclic lactones

Potent, broad antiparasitic spectrum at low dose levels. They are active against many immature nematodes (including hypobiotic larvae) and arthropods

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Abamectin	Core	•	•			
Avermectin	Core					•
Doramectin	Core	•	•	•		
Eprinomectin	Core	•	•	•		
Ivermectin	Core	•	•	•	•	
Ivermectin + Clorsulon	Core	•				
Ivermectin + Closantel	Core	•				
Ivermectin + levamisole and/or oxfendazole	Core	•				
Moxidectin	Core	•	•	•	•	

Nematophagous fungi

Zootechnical feed additive intended to control pathogenic nematodes on pasture

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Duddingtonia flagrans	Complementary	•				

Organo Phosphonic Acids

Developed initially as pesticides are also used as anthelmintics

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Trichlorfon	Complementary				•	
Organophosphates	Complementary	•				

Pyrethroids

Insecticides and acaricides for the treatment of a broad range of ectoparasite

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Alphamethrin	Core	•				
Cyfluthrin	Core	•				
Cypermethrin	Core	•			•	
Flumethrin	Complementary	•				
Permethrins	Core	•				•
Dalmethrin	Core	•				
Deltamethrin	Core	•				
Lambda-cyhalothrin	Complementary	•				

Pyridine

Coccidiostat used for prevention and treatment of coccidiosis

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Amprolium	Core	•				

Quinazolinone

Antiprotozoal agent with cryptosporidiostatic effect on cryptosporidium parvum

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Halofuginone lactate	Complementary	•				

Triazine

Antiprotozoal that have successfully controlled coccidiosis and equine protozoal myeloencephalitis plus other protozoal diseases such as neosporosis and toxoplasmosis

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Isometamidium chloride hydrochloride	Core	•			•	
Toltrazuril	Core	•	•	•		•
Diclazuril	Core		•	•		•

Triazapentadiene

Broad-spectrum insecticide and acaricide

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Amitraz	Core	•				

Antifungals

Azoles

Treatment of systemic and topical fungal infections, including aspergillosis, dermatophytosis

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Enilconazole	Core	•			•	
Ketoconazole	Core				•	
Itraconazole	Core				•	
Miconazole	Complementary				•	

Griseofulvin

Systemic antifungal active against Microsporum, Epidermophyton, and Trichophyton spp

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Griseofulvin	Core				•	

Iodides

Sodium and potassium iodide have both been administered to treat selected bacterial, actinomycete, and fungal infections

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Sodium iodide/ Potassium iodide	Core	•			•	

Polyene macrolides

Broad antifungal activity against organisms ranging from yeasts to filamentous fungi and from saprophytic to pathogenic fungi

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Amphotericin B	Core				•	
Natamycine	Complementary				•	

Quarternary ammonium and biguanide compound

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Chlorhexidine	Core	•	•	•	•	

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Captan	Complementary	•				
Copper naphthenate	Complementary	•				
Phenylmercuric acetate	Complementary	•				

Anti-virals

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Acyclovir	Complementary				•	

Antimicrobials

Aminoglycosides

Streptomycin and dihydrostreptomycin are characterized by narrow spectra, and efficacy is limited by bacterial resistance. Gram-negative bacilli are still susceptible, including strains of *Actinomyces bovis*, *Pasteurella* spp, *E coli*, *Salmonella* spp, *Campylobacter fetus*, *Leptospira* spp, and *Brucella* spp. *Mycobacterium tuberculosis* is also sensitive to streptomycin.

The spectra of neomycin, framycetin, and kanamycin are broader, with clinical use targeting gram-negative organisms, including *E coli* and *Salmonella*, *Klebsiella*, *Enterobacter*, *Proteus*, and *Acinetobacter* spp. Aminoglycosides with spectra that include *P aeruginosa* (gentamicin, tobramycin, amikacin, sisomicin, and netilmicin) are also often highly effective against a wide variety of aerobic bacteria. (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Apramycin	Core	•	•			
Neomycin sulphate (ocular)	Core				•	
Streptomycin	Core	•				
Gentamicin	Core	•		•	•	•
Amikacin	Complementary				•	
Gamithromycin	Complementary	•	•	•		
Kanamycin	Complementary	•				
Neomycin	Complementary		•			•

Amphenicols

Many genera of gram-positive and gram-negative bacteria and several anaerobes such as *Bacteroides fragilis*, as well as *Rickettsia* and *Chlamydia* spp, are susceptible to phenicols.

(Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Chloramphenicol (ocular)	Core				•	
Florfenicol	Core	•	•	•		•

Azoles

Metronidazole is a bactericidal, concentration-dependent nitroimidazole antibiotic with a narrow spectrum of activity against anaerobes and protozoa. (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Metronidazole	Core				•	

Bacitracins

The spectrum of bacitracins is broad, but it is used primarily to treat gram-positive infections. Resistance is rare. Bacitracins are often used in combination with neomycin and polymyxins to enhance the antibacterial spectrum. (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Bacitracin	Complementary					•

Cephalosporins

First-generation cephalosporins have proved useful for infections involving *Staphylococcus* spp, however, their efficacy appears to be declining because of emerging resistance, including methicillin-resistant organisms. Ceftiofur is a third-generation cephalosporin with a gram-negative spectrum that is more similar to that of first-generation cephalosporins. Ceftiofur has been specifically approved for use in cattle with bronchopneumonia, especially if due to *Mannheimia haemolytica* or *Pasteurella multocida*. (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Ceftiofur	Core	•			•	•
Cefuroxime	Complementary	•				
Cephalonium	Complementary	•				
Cefapirin	Complementary	•				
Cephalexin	Complementary	•				
Cefquinome	Complementary	•				

Ionophores/Non Ionophore feed additives

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Ionophores	Complementary	•				•
Avilamycin	Complementary					•

Lincosamides

Lincomycin has a limited spectrum against aerobic pathogens but a broad spectrum against anaerobes. Many gram-positive cocci, except for enterococci, and Mycoplasma are inhibited by lincosamides; many gram-negative organisms are resistant. (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Lincomycin	Core		•	•		•
Lincomycin + neomycin	Complementary	•				

Macrolides

Macrolides are active against most aerobic and anaerobic gram-positive bacteria, although there is considerable variation as to potency and activity. In general, macrolides are not active against gram-negative bacteria; however, some strains of Pasteurella, Haemophilus, and Neisseria spp may be susceptible. Exceptions include tilmicosin, gamithromycin, and tulathromycin, for which the spectra are characterized as broader and include Mannheimia haemolytica and Pasteurella multocida, as well as some gram-negative bacteria (ie, some strains of Pasteurella, Haemophilus, and Neisseria spp). Azithromycin includes Bordetella in its spectrum. (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Azithromycin	Core				•	
Erythromycin	Core			•		
Tilmicosin	Core		•			•
Tulathromycin	Core	•	•	•		•
Tylosin	Core	•	•	•		•
Tylvalosin	Complementary					•
Tildipirosin	Complementary	•				
Oleandomycin	Complementary	•				

Penicillins

Beta-lactam antimicrobials impair the development of bacterial cell walls by interfering with transpeptidase enzymes responsible for the formation of the cross-links between peptidoglycan strands. These enzymes are associated with a group of proteins in both gram-positive and gram-negative bacteria called the penicillin-binding proteins (PBPs). (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Amoxicillin clavulanate	Core		•	•		•
Cloxacilin	Core	•	•			
Penicillin	Core		•	•		•
Procaine Penicillin G	Core				•	
Amoxycillin	Core	•	•	•		•
Ampicillin	Core	•	•			•
Procaine benzyl + Benzathine penicillin	Core	•	•		•	
Procaine Penicillin G + Streptomycin sulfate	Core	•	•	•	•	
Pentamidin	Core	•				
Penethamate hydroiodide	Complementary	•				

Pleuromutilin

Tiamulin is active against gram-positive bacteria, mycoplasmas, and anaerobes, including *Brachyspira hyodysenteriae* (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Tiamulin	Complementary					•

Polymyxins

The polymyxins are more effective against gram-negative than gram-positive bacteria. The polymyxins' rather narrow spectrum includes *Enterobacter*, *Klebsiella*, *Salmonella*, *Pasteurella*, *Bordetella*, *Shigella*, *Pseudomonas* spp, and *Escherichia coli*. (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Colistin	Complementary					•

Quinolones

The fluoroquinolones are active against a wide range of gram-negative organisms and several gram-positive aerobes. These include E coli, Salmonella, Klebsiella, Enterobacter, Proteus, and generally P aeruginosa. Fluoroquinolones are active against intracellular pathogens, including Brucella spp. Quinolones also have substantial activity against Mycoplasma, Rickettsia, and Chlamydia spp. (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Enrofloxacin	Core	•	•	•	•	•
Danofloxacin	Complementary	•	•			
Marbofloxacin	Complementary	•	•			

Quinoxalines

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Carbadox	Complementary					•

Rifamycins

Used in foals to control Rhodococcus equi pneumonia in combination with macrolides (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Rifampin	Complementary				•	

Sulfonamides

Sulfonamides inhibit both gram-positive and gram-negative bacteria, Nocardia, Actinomyces spp, and some protozoa (eg, coccidia and Toxoplasma spp). More active or potentiated sulfonamides may have activity against several species of Streptococcus, Staphylococcus, Salmonella, Pasteurella, Corynebacterium, and even Escherichia coli in their spectra. (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Sulfachlorpyridazine	Core	•				
Sulfadiazine/ Trimethoprim	Core	•			•	
Sulfadoxin/Trimethoprim	Core	•				
Sulfamethoxazole/ Trimethoprim	Core		•	•		
Sulfamethoxyipyridazine + Trimethoprim	Core	•				
Sulfamonomethoxine sodium + Trimethoprim	Core				•	
Sulfamethazine	Complementary					•
Sulfadimethoxine	Complementary	•				•

Tetracyclines

All tetracyclines are about equally active and typically have about the same broad spectrum, which comprises both aerobic and anaerobic gram-positive and gram-negative bacteria, mycoplasmas, rickettsiae, chlamydiae, and even some protozoa (amebae). (Reference: MSD Veterinary Manual)

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Chlortetracycline	Core	•				•
Doxycycline	Core	•		•	•	•
Oxytetracycline	Core	•	•	•	•	•

Anti-inflammatories and Analgesics

Corticosteroids

Commonly used to treat allergy and inflammation such as pruritic dermatoses and allergic lung and gastrointestinal diseases

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Dexamethasone sodium phosphate	Core	•	•	•	•	•
Dexamethasone trimethyl acetate	Core	•	•	•		
Isoflupredone acetate	Core	•				•
Prednisolone	Core	•		•	•	

Non-steroidal anti-inflammatories (NSAID)

All NSAIDs, except for acetaminophen are antipyretic, analgesic, and anti-inflammatory

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Carprofen	Core	•				
Dipyron	Complementary	•				•
Flunixin	Core	•	•	•	•	•
Ketoprofen	Core	•	•	•		•
Meloxicam	Core	•	•	•	•	•
Tolfenamic acid	Complementary	•				
Phenylbutazone	Core				•	
Acetaminophen/paracetamol	Core				•	•
Salicylic acid (Aspirin)	Complementary	•				

Antihistamines

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Mepyramine maleate	Complementary	•				

Anti-spasmodics

Treatment of spasmodic activity in the digestive system

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Hyoscine butylbromide	Core				•	

Sedatives and Anaesthetic Agents

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Xylazine	Core	•	•	•	•	•
Ketamine	Core	•	•	•	•	•
Butorphanol	Core	•	•	•	•	
Lidocaine	Core	•	•	•	•	•
Procaine	Core	•	•	•		
Thiopental Sodium	Core				•	
Acepromazine	Core			•	•	•
Propofol	Complementary			•		
Tiletamine/zolazepam	Complementary					•
Azaperone	Complementary					•
Isoflurane	Complementary					•
Bupivacaine	Complementary				•	
Detomidine	Complementary				•	

Emergency Medicines

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Atropine	Complementary				•	
Epinephrine/ Adrenaline	Core					•

Fluid Therapy

Fluids must be administered that will concentrate within the body fluid compartment where the volume deficit lies. Crystalloids are water-based solutions with small-molecular-weight particles, freely permeable to the capillary membrane. Colloids are water-based solutions with a molecular weight too large to freely pass across the capillary membrane. Colloids are thought of as intravascular volume replacement solutions, and crystalloids as interstitial volume replacement solutions.

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Lactated ringers solution (Isotonic)	Core	•	•	•	•	•
Normal Saline/ Sodium Chloride solution (Isotonic 0.9%)	Core	•	•	•	•	•
Sodium Bicarbonate solution (Isotonic 1.3%)	Core	•				
Dextrose (Hypotonic 5%)	Core	•		•	•	
Calf Oral Electrolytes(300-700 mOsm/kg),	Core	•				

Metabolic Agents

Vitamins and Minerals

Treatment of metabolic disorders

Minerals

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Calcium borogluconate	Core	•	•	•	•	•
Calcium borogluconate +Magnesium Hypophosphate	Core			•		
Calcium chloride oil emulsion	Core	•				
Calcium gluconate + Ascorbic acid.	Core				•	
Copper Bullets	Core	•	•			
Copper EDTA	Core	•	•			
Copper glycinate	Core	•	•			
Magnesium oxide	Core	•				
Magnesium sulphate	Core	•	•			•
Selenium	Core	•	•			

Vitamins

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Thiamine	Core	•				
Vitamin A	Core	•				
Vitamin B12	Core	•	•	•		
Vitamin B12 plus selenium	Core	•				
Vitamin C (Ascorbic acid)	Core	•				
Vitamin E	Core	•				
Vitamin mineral mixes	Complementary	•	•	•	•	

Energy supplements

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Dextrose	Core	•				
Propylene glycol	Core	•	•			
Glucose	Core	•		•		

Hormone Therapies

Beta-2-mimetic agents

Uterine relaxation to postpone parturition and to facilitate obstetric manipulations

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Clenbuterol	Core	•				

Follicle Stimulating Hormone

Stimulates follicular growth and estrogen production in females and spermatogenesis in males. It is used for superovulation of several domestic species

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Follicle stimulating hormone	Core	•				

Gonadotrophins

Used to induce ovarian follicular growth and to induce estrus. It also may be used in superovulation protocols in ruminants

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Pregnant mare serum gonadotropin (PMSG)	Core	•	•	•	•	•
Human chorionic gonadotropin	Complementary	•				•

Gonadotrophin Releasing Hormones (GnRH)

GnRH and its analogues are commonly used for control of ovarian follicular dynamics

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Buserelin acetate	Core	•				
Gonadorelin	Core	•				
Lecirelin	Core	•				
Gonadotropin releasing factor analog	Complementary					•

Melatonin

May also be used to regulate reproduction in species that are seasonal breeders

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Melatonin	Complementary		•			

Oxytocin

Used in a variety of species to promote milk letdown, as an adjunctive treatment of mastitis or agalactia, and to cause uterine contraction either to induce (or supplement) labor or to enhance uterine contraction for expulsion of uterine fluid or fetal membranes

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Oxytocin	Core	•	•	•	•	•

Progesterone

Used to assist in the control of follicular dynamics in ruminants as part of many synchronization protocols

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Progesterone	Core	•	•	•		
Progesterone Sponges or CIDRs	Complementary		•			

Prostaglandins

Prostaglandins and its analogues are used mainly for their luteolytic effects to induce a predictable onset of estrus or to synchronize estrus in a variety of species. They may also be used for termination of pregnancy, either alone or in combination with corticosteroids. These compounds also cause marked uterine contractions, which may be useful for expulsion of uterine contents in pathologic conditions

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
D Cloprostenol	Core	•	•		•	
D-L Cloprostenol	Core	•				
Dinoprost	Core	•				•

Euthanasia

Medicines to facilitate death that minimizes pain, distress, and anxiety experienced by the animal before loss of consciousness

Barbiturates

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Pentobarbital	Core	•	•	•	•	•
Potassium chloride	Core				•	
T61 (Embutramide, Mebezonium Iodide, Tetracaine hydrochloride)	Complementary					•

Electrolytes

Medicine	Category	Large Ruminant	Sheep	Goats	Equids	Pigs
Thiopental sodium	Core				•	
Magnesium sulphate	Core				•	

END

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