



COMMITTEE FOR VETERINARY MEDICINAL PRODUCTS

Update of the Position Paper on Availability of Veterinary Medicines agreed on 14 October 1999

At the meeting on 16-18 March 1999 the CVMP adopted the Position Paper on Availability of Veterinary Medicines (EMEA/CVMP/151/99-FINAL), which identified from the lists of substances no longer available 10 substances as essential. These were: narcobarbital, thiamylal, thiopental, pentobarbital (had to be withdrawn later, as no product containing the substance has ever been licensed for food producing animals), etorphine/diprenorphine, propionylpromazine, acepromazine, metomidate, diazepam, yohimbine. Following further scrutiny of the substances recently evaluated, for which no MRLs can be established, the list of substances considered essential in veterinary medicine was updated at the meeting on 12-14 October.

The substances and indications identified as essential as per October 1999 are:

1. Indication: general anaesthesia by injection
Substances:
 - Narcobarbital (pigs), Thiamylal (cattle, sheep, goats, horses, pigs), Thiopental sodium (cattle, goats, horses, pigs, rabbits, birds);
 - Etorphine/Diprenorphine (cattle)¹
2. Indication: neuroleptic analgesia, sedation and premedication of narcosis
Substances: Propionylpromazine (cattle, horses, pigs), Acepromazine (cattle, sheep, goats, horses, pigs)
3. Indication: sedation
Substances: Metomidate (pigs)¹
4. Indication: anxiolysis, tranquilisation
Substance: Diazepam (cattle, sheep, goats, horses, donkeys, pigs, poultry and game birds)¹
5. Indication: Antagonism of α_2 -adrenergic effects
Substance: Yohimbine (cattle, deer)¹
6. Indication: nosemosis in honey bees, proliferative kidney disease in trout.
Substances: Fumagillin

It should be noted that this list is still considered as a draft and can possibly only be finalised once the procedures of all MRL applications for old substances have been closed.

The lists of substances which served as working documents for the CVMP in its attempts to identify those products which are essential in veterinary medicine today are attached to this document (Annexes 1 to 2).

Since March 1999 the CVMP undertook efforts to salvage the essential substances identified and to obtain further data possibly available in the public domain or within institutions outside the EU, which have not been included in the dossier or the assessment in order to set MRLs. While any possible effort was made it appears at present that these attempts will possibly only allow salvaging one or two of the essential substances. Particularly in respect to the substances never defended the information available in public domain is not promising.

Substances, which are no longer available in veterinary medicines

Substances considered under Article 7 of Regulation 2377/90 (defended substances)

(MRL applications withdrawn, no recommendation for inclusion in Annex I, II or III possible, included in Annex IV)

Substances	Indication	Species ¹	MRL Status	Examples for alternatives	MRL Status for these alternatives ²
Antibacterials and antiprotozoals					
Cefuroxime	Treatment of clinical mastitis in lactating cattle and treatment of sub-clinical infections and reduction of the risk of new infections in dry cattle	Cattle	No rec.	There are several drugs available against mastitis	
Chloramphenicol	Treatment of bacterial infections (against broad-spectrum of bacteria)	Cattle (calves), pigs, poultry	Annex IV	Thiamphenicol Florfenicol Amoxicillin	Annex I bovine, chicken Annex I bovine Annex I all food producing species
Dapsone	Coccidiosis Treatment of mastitis and endometritis	Cattle	Annex IV	Sulfonamides There are several drugs available against mastitis and endometritis	Annex I all food producing species
Furazolidone	Coccidiosis Treatment of bacterial infections (against Gram positive and Gram negative bacteria)	Cattle Pigs Rabbits Poultry Fish	Annex IV	(see Dapsone) Sulfonamides (sulphaquinoxaline) Sulfonamides (sulphaquinoxaline) Amprolium Toltrazuril Sulfonamides Sarafloxacin Flumequine	Annex I all food producing species Annex I all food producing species <i>List of questions (chicken, turkey)</i> Annex I chicken, turkey Annex I all food producing species Annex I salmonidae Annex I salmonidae

¹ Species, for which MRL application was made; also species for which products are authorised in the EU, as far as information available and was included in Summary Report

² CVMP recommendations not yet published in the OJ are written in *italics*

Substances	Indication	Species ¹	MRL Status	Examples for alternatives	MRL Status for these alternatives ²
Nitrofurans (except Furazolidone)	Treatment of bacterial infections (against Gram positive and Gram negative bacteria) Treatment of protozoal diseases	All food producing species	Annex IV	There are several drugs available against infection of Gram positive and Gram negative bacteria Imidocarb Toltrazuril	Annex III bovine, ovine Annex I chicken, turkey
Dimetridazole	Genital trichomoniasis Haemorrhagic enteritis Histomoniasis Trichomoniasis	Cattle Pigs Turkeys Pigeons	Annex IV	No alternatives	
Metronidazol	Retentio secundarium (in combination with neomycin) Dysentery (<i>Serpulina hyodysenteriae</i>),	Cattle Pigs	Annex IV	Not of importance Tiamulin Lincomycin Valnemulin	<i>Annex I porcine, chicken</i> <i>Annex III porcine</i> Annex III porcine
Ronidazole	Genital trichomoniasis Haemorrhagic enteritis Histomoniasis Trichomoniasis	Cattle Pigs Turkeys Pigeons	Annex IV	No alternatives	
Antimycotics					
Nystatin	Treatment of ringworm Treatment of candidiasis	Cattle, horses Poultry	Withdrawn	Natamycin (for topical use only) Enilconazole (for topical use only) Not of importance	Annex II bovine, equidae <i>Annex II bovine, equidae</i>
Anthelmintics					
Thiophanate	Treatment of helminthoses	Cattle, sheep, goats, pigs	Withdrawn	Febantel Fenbendazole Albendazole Levamisole	Annex I bovine, ovine, porcine, equidae Annex I bovine, ovine, porcine, equidae Annex I bovine, ovine Annex I bovine, ovine, porcine, poultry

Substances	Indication	Species ¹	MRL Status	Examples for alternatives	MRL Status for these alternatives ²
Bithionol sulfoxide	Treatment of helminthoses (against adult <i>Fasciola hepatica</i> and <i>Paramphistomum spp</i>)	Cattle, sheep	Withdrawn	Closantel Triclabendazole Nitroxinil Oxyclosanide	Annex I bovine, ovine Annex I bovine, ovine Annex I bovine, ovine Annex III bovine, ovine
Niclosamide	Treatment of helminthoses	Sheep Chicken	Withdrawn	Praziquantel (as niclosamide also praziquantel is effective against <i>Taenia</i> and <i>Echinococcus</i>) Not relevant for chicken; due to modern husbandry practice disease very rare	Annex II ovine, equidae
Antiparasitics					
Bromopropylate	Diagnosis and treatment of acariasis (<i>Varroa jacobsoni</i> , <i>Acarapis woodi</i>)	Honey bees	Withdrawn	Flumethrin Tau fluvalinate Amitraz Cymiazole Coumaphos	Annex II honey bees Annex II honey bees Annex III bees Annex III honey bees Annex III honey bees
Fenthion	Treatment and control of ectoparasitoses and hypodermiasis in cattle	Cattle, pigs	Withdrawn	Diazinon Amitraz Flumethrin Phoxim Phosmet Moxidectin Ivermectin Doramectin Eprinomectin Abamectin	Annex I bovine, ovine, caprine, porcine Annex I bovine, ovine, porcine Annex I bovine <i>Annex III porcine</i> <i>List of questions (bovine, porcine)</i> Annex I bovine, ovine; Annex III equidae Annex I bovine, ovine, porcine, equidae Annex I bovine, ovine, porcine Annex I bovine Annex I bovine
Fumagillin	Treatment and prevention of nosemosis Prevention and treatment of proliferative kidney disease	Honey bees Trout	No rec.	No alternatives	

Substances	Indication	Species ¹	MRL Status	Examples for alternatives	MRL Status for these alternatives ²
Heptenophos	Treatment of infestations by mange mites	Cattle, pigs, horses, laying hens	Withdrawn	Flumethrin Cyfluthrin Phoxim Moxidectin Ivermectin Abamectin Doramectin Eprinomectin Amitraz Cypermethrin	Annex I bovine Annex III bovine <i>Annex III porcine</i> Annex I bovine; Annex III equidae Annex I bovine, porcine, equidae Annex I bovine Annex I bovine, porcine Annex I bovine Annex I bovine, porcine Annex III bovine, ovine, caprine, chicken, salmonidae <i>List of questions (eggs)</i>
Dichlorvos	Treatment of helminthoses and control of internal and external parasites	Pigs, horses	Withdrawn	Phosmet Diazinon Phoxim Ivermectin Doramectin Levamisole Fenbendazole (Other benzimidazoles)	<i>List of questions (bovine, porcine)</i> Annex I bovine, ovine, caprine, porcine <i>Annex III porcine</i> Annex I bovine, ovine, porcine, equidae Annex I bovine, ovine, porcine Annex I bovine, ovine, porcine, poultry Annex I bovine, ovine, porcine, equidae
Tetrachlorvinphos	It is used as a larvicide for animals to prevent horn, face, house and stable flies	Cattle, pigs, horses	Withdrawn	Cyfluthrin Permethrin Cypermethrin Eprinomectin Moxidectin	Annex III bovine <i>Annex III bovine, ovine, porcine</i> Annex III bovine, ovine, caprine, porcine, chicken, salmonidae Annex I bovine Annex I bovine, ovine; Annex III equidae
2-Ethyl-1,3-hexanediol	Mastitis prevention	Cattle	No rec.	There are several drugs available against mastitis	
	Insect repellent	Cattle, horses		Polyethylene glycol-7-glyceryl cocoate	Annex II all food producing species
Agents acting on the autonomic nervous system					
Ephedrine	Treatment of respiratory and cardiac disorders	Cattle, sheep, goats, pigs, horses	No rec.	Epinephrine (as cardiac analeptic) Doxapram (as respiratory analeptic)	Annex II all food producing species Annex II all mammalian food producing species
Camylofine	Treatment of visceral spasms	Cattle, sheep, pigs, horses	Withdrawn	Atropine	Annex II all food producing species

Substances	Indication	Species ¹	MRL Status	Examples for alternatives	MRL Status for these alternatives ²
Antihistamines					
Diphenhydramine	Treatment of pharyngitis, laryngitis, tracheitis, bronchitis, bronchial spasm, enteral spasmolysis, urticaria, serum shock, laminitis, and for the symptomatic relief of pain and swelling	Cattle, sheep, goats, pigs, horses	No rec.	Chlorphenamine	<i>Annex II all mammalian food producing species</i>
Agents acting on the central nervous system					
Chloral hydrate	General anaesthesia	Cattle, pigs, horses	Withdrawn	Ketamine in combination with Xylazine hydrochloride	Annex II all food producing mammalian species <i>Annex II bovine, equidae</i>
Narcobarbital	General anaesthesia	Pigs	Withdrawn	No alternatives	
Thiopental sodium	General anaesthesia	Cattle, goats, pigs, horses, rabbits, birds	Withdrawn	No alternatives	
Thiamylal	General anaesthesia	Cattle, sheep, goats, pigs, horses	No rec.	No alternatives	
Chloroform	General anaesthesia	No information	Annex IV	Not of importance Isoflurane	Annex II equidae
Pentoxyverine	Treatment of cough	Horses	No rec.	Butorphanol (different mode of action)	Annex II equidae
Propionylpromazine	Sedation and premedication of narcosis	Cattle, pigs, horses	Withdrawn	No alternatives	
Acepromazine	Sedation, neurolept-analgesia	Cattle, sheep, goats, pigs, horses	Withdrawn	No alternatives	
Chlorpromazine	Sedation	Cattle, sheep, goats, pigs, horses,	Annex IV	No alternatives	
Dextrometorphan hydrobromide	Treatment of cough	Cattle, sheep, goats, pigs, horses	Withdrawn	Butorphanol (different mode of action) Not of importance	Annex II equidae

Substances	Indication	Species ¹	MRL Status	Examples for alternatives	MRL Status for these alternatives ²
Ammonium phthalamate	Treatment of acute respiratory disorders of new-born calves	Cattle (calves)	Withdrawn	Doxapram Prethcamide	Annex II all mammalian food producing species Annex II all food producing mammalian species
Pentetrazol	Treatment of acute respiratory disorders of new-born animals	Cattle, sheep, pigs, horses	Withdrawn	Doxapram Prethcamide	Annex II all mammalian food producing species Annex II all food producing mammalian species
Opium tincture	Treatment of diarrhoea	Cattle	No rec.	Bismuth compounds	Annex II all food producing species
Local anaesthetics					
Butanilicaine	Local anaesthetic	No information on target species	No rec.	Lidocain Mepivacaine (Tetracaine) (Procaine)	<i>Annex II equidae (for local-regional anaesthesia only)</i> <i>Annex II equidae (for intra-articular and epidural use as anaesthetic only)</i> Annex II all food producing species Annex II all food producing species
Agents acting on the reproductive system					
Testosterone	Androgen therapy	Cattle, pigs, horses	Withdrawn	Not of importance	
Fenprostalene (prostaglandin and analogues)	Synchronisation of oestrus, reproductive disorders associated with persistent corpus luteum, termination of unwanted pregnancies (cattle), induction of parturition (cattle, pigs)	Cattle, pigs	Withdrawn	Dinoprost Dinoprost tromethamine Cloprostenol R-Cloprostenol Tiaprost Etiproston tromethamine Luprostirol	Annex II all mammalian species Annex II all mammalian species Annex II bovine, porcine, equidae Annex II bovine, porcine, equidae Annex II bovine, ovine, porcine, equidae Annex II bovine, porcine Annex II all mammalian species
Antiinflammatory agents					
Diclofenac	The non-steroidal anti-inflammatory drug	Cattle, pigs	No rec.	Ketoprofen Tolfenamic acid	Annex II bovine, porcine, equidae Annex I bovine, porcine

Substances	Indication	Species ¹	MRL Status	Examples for alternatives	MRL Status for these alternatives ²
Methylprednisolone	Treatment of inflammations of the musculo-skeletal system, in combination with antibiotics: respiratory diseases, urogenital infections	Cattle, pigs, horses	Withdrawn	Prednisolone Dexamethasone Betamethasone Flumethasone	<i>Annex I bovine</i> Annex I bovine, porcine, equidae <i>Annex I bovine, porcine</i> <i>List of questions (cattle, sheep, goats, pigs, horses)</i>
Phenylbutazone	Treatment of inflammatory conditions of the musculoskeletal/ locomotor system	Cattle, pigs, horses	No rec.	Vedaprofen Flunixin Tolfenamic acid Acetylsalicylic acid Ketoprofen Meloxicam	Annex I equidae <i>Annex I bovine, porcine</i> Annex I bovine, porcine <i>Annex II bovine, porcine, poultry</i> Annex II bovine, porcine, equidae Annex III bovine
Meclofenamic acid	Treatment of non-infective arthritis, pneumopathies and mastitis.	Cattle	No rec.	See phenylbutazone	
Suxibuzone	Treatment of inflammatory conditions of the musculoskeletal/ locomotor system	Cattle, sheep, pigs, horses	No rec.	See phenylbutazone	
Ramifenazone	Treatment of inflammatory conditions of the musculoskeletal/ locomotor system	Cattle, pigs, horses	No rec.	See phenylbutazone	
Phenazone	Analgesic, antipyretic, spasmolytic Excipient in a product against trypanosomiasis and babesiosis	Cattle, sheep, pigs, horses Cattle, sheep	No rec.	See phenylbutazone	
Populeum ointment	Local treatment of inflammations	Cattle, sheep, goats, pigs, horses	No rec.	Several parenteral drugs and herbal remedies for topical application are available	

Substances	Indication	Species ¹	MRL Status	Examples for alternatives	MRL Status for these alternatives ²
Corticosteroids					
Isoflupredone	Treatment of a number of conditions including bovine ketosis, shock and allergic reactions	Cattle	No rec.	Dexamethasone Hydrocortisone	Annex I bovine, porcine, equidae Annex II all food producing species
Dexamethasone -21- (3- sulfobenzoate)	Treatment of metabolic diseases (e.g. ketosis) in ruminants and inflammatory diseases in a number of animal species	Cattle, pigs, horses	Withdrawn	Dexamethasone Hydrocortisone	Annex I bovine, porcine, equidae Annex II all food producing species
Prednisolone -21- (3- sulfobenzoate)	Treatment of bovine mastitis	Cattle, sheep, goats, pigs, horses	Withdrawn	Prednisolone Dexamethasone Hydrocortisone	<i>Annex I bovine</i> Annex I bovine, porcine, equidae Annex II all food producing species
Agents acting on the gastrointestinal system					
Benzonaphthol	Treatment of diarrhoea	Cattle, sheep, goats, pigs, horses	Withdrawn	Not relevant (not used)	
Clanobutin	Indigestion, atony, insufficient food consumption, obstipation and protective therapy for the liver	Cattle, sheep, goats, pigs	Withdrawn	Menbutone (different mode of action)	Annex II bovine, ovine, caprine, porcine, equidae
Halquinol	Treatment of diarrhoea (microbial origin)	Pigs, poultry	Withdrawn	Flumequine	Annex III bovine, ovine, porcine, chicken
Topical agents					
Benzylic nicotinate	Local treatment of inflammatory conditions (rubifacient)	No information	Withdrawn	Not of importance	
Benzylideneacetone	Treatment of respiratory, vascular and rheumatoid disorders	Cattle, horses	No rec.	Not of importance	
Colchicine	Treatment of papillomas and warts	Cattle, horses	Annex IV	Concentrated lactic acid Other alternative therapies are auto-vaccination and cryosurgery	Annex II all food producing species

Substances	Indication	Species ¹	MRL Status	Examples for alternatives	MRL Status for these alternatives ²
Copper naphthenate	Treatment of foot rot	Cattle, sheep	Withdrawn	Copper sulphate Peracetic acid	Annex II all food producing species Annex II all food producing species
	Treatment of ringworm			See griseofulvin	
Polyhexanide	Disinfectant for prevention of teats infection	Cattle	Withdrawn	Sodium chlorite Sodium dichloroisocyanurate Chlorhexidine Iodophors	Annex II bovine Annex II bovine, ovine, caprine Annex II all food producing species Annex II all food producing species
Miscellaneous					
Diethylamine copper oxyquinolone sulphonate (cuproxoline)	Treatment of copper insufficiency	Cattle, sheep	Withdrawn	Copper sulphate Copper oxide Copper heptonate	Annex II all food producing species Annex II all food producing species Annex II all food producing species
Metesculetol sodium (Permethol)	Vascular diseases	Horses	No Rec.	Hesperidin Hesperidin methyl chalcone	Annex II equidae Annex II equidae
Extraxtum pini	Secretolytic for treatment of bronchitis	Cattle, sheep, pigs, horses		Bromhexine Dembrexine	<i>Annex II bovine, porcine, poultry</i> Annex II equidae
Copper 8-hydroxy-quinoline	Treatment or prevention of infectious gastro-intestinal diseases (against a wide range of Gram positive and Gram negative bacteria)	Pigs, poultry	Withdrawn	There are several drugs available against Gram positive and Gram negative bacteria	
<i>Rhamni purshiani cortex</i>	Treatment of constipation	All food-producing species	No rec.	Aloe	<i>Annex II all food producing species</i>
<i>Oenanthe aquatica</i>	It is used as an expectorant and antitussive agent for treatment of chronic respiratory tract diseases and for treatment of gastrointestinal disorders	All food-producing species	No rec.	Alternatives are available	

Substances	Indication	Species ¹	MRL Status	Examples for alternatives	MRL Status for these alternatives ²
<i>Rhei radix</i> (veterinary homeopathy)	Treatment of hepatic dysfunction, hepatic congestion, and hepatitis of alimentary origin	Cattle	No rec. (no longer used)	Alternatives are available	
<i>Chelidonii herba</i>	Treatment of digestive disorders, disturbances of intestinal microflora, chronic gastritis, enteritis, coprophagy, metabolic disorders, lack of appetite	Cattle (except lactating cows), pigs, horses	No rec.	Lini oleum Quercus cortex Sodium 2-methyl-2-phenoxypropanoate Tanninum	Annex II all food producing species Annex II all food producing species Annex II bovine, caprine, porcine, equidae Annex II all food producing species
<i>Chelidonium majus</i> (veterinary homeopathy)		All food-producing species	No rec.	Alternatives are available	
<i>Apis mellifera</i> (veterinary homeopathy)		All food-producing species	No rec.	Alternatives are available	
<i>Collinsonia canadensis</i> (veterinary homeopathy)		All food-producing species	No rec.	Alternatives are available	
<i>Lophophytum leandri</i> (veterinary homeopathy)		All food-producing species	No rec.	Alternatives are available	
<i>Viburnum opulus</i> (veterinary homeopathy)		All food-producing species	No rec.	Alternatives are available	
<i>Viburnum prunifolium</i> (veterinary homeopathy)		All food-producing species	No rec.	Alternatives are available	
<i>Aristolochia spp.</i> and preparations thereof (veterinary homeopathy)	Regulation of sexual functions, immunostimulation, antiphlogistic effects and other indications	Cattle, sheep, goats, pigs, horses	Annex IV	Alternatives are available	

Substances	Indication	Species¹	MRL Status	Examples for alternatives	MRL Status for these alternatives²
Excipients					
Glycofurol	Excipient used in injectable solutions	Cattle, pigs	Withdrawn	Excipients not considered at present	
Polyethylene terephthalates	Excipient	No information	Withdrawn	Excipients not considered at present	

Substances, which are not available for veterinary medicines, and where no MRL application has been made (non-defended substances)**Substances previously authorised for veterinary medicines**

Substances	Indication	Species ³	Examples for alternatives	MRL Status for these alternatives ⁴
Anti-infectious agents				
Nalidixic acid	Treatment of urinary tract infections and septicaemia	Cattle, pigs, rabbits, chicken, turkey	Enrofloxacin Danofloxacin Broad spectrum penicillins: Amoxicillin	Annex I bovine, porcine, poultry, rabbits Annex III porcine Annex I all food producing species
2-Hydroxy-propyl-tri-ammonium iodide	Treatment of actinomycosis	Cattle, sheep	Iodine salts (Penicillins)	Annex II all food producing species Annex I all food producing species
Antimycotics				
Griseofulvin	Treatment of fungal diseases, treatment of dermatophytoses	Cattle, horses	Natamycin (for topical use only) Enilconazole (for topical use only)	Annex II bovine, equidae <i>Annex II bovine, equidae</i>
Antiparasitic agents				
Pyrimethamine	Treatment of coccidiosis and bacterial infections	Rabbits	Sulfonamides (sulphaquinoxaline)	Annex I all food producing species, but only used in combination products with diaminopyrimidines/trimethoprim
Agents acting on the central nervous system				
Diazepam	Anxiety related behavioural problems and animal aggressiveness. Treatment of convulsions in hypoxic neonatal animals	Cattle, sheep, goats, pigs, horses, poultry, donkey	No alternatives (Alternatives with other mode of action, e.g. barbiturates, but no MRL)	
Fluanisone + fentanyl	Neuroleptanalgesia	Rabbits	Only used for pets and laboratory animals, i.e. not relevant for food producing animals	

³ Species, indicated by Member States⁴ CVMP recommendations not yet published in the OJ are written in *italics*

Substances	Indication	Species ³	Examples for alternatives	MRL Status for these alternatives ⁴
Halothane	Inhalation anaesthetic for general anaesthesia	Cattle, sheep, goats, pigs, horses, donkey	Isoflurane Xylazine hydrochloride (different application route) Comment: as far as known halothane is used only for horses, companion animals and laboratory animals. Not used as anaesthesia for pigs.	Annex II equidae <i>Annex II bovine, equidae</i>
Metomidate	Sedation	Pigs	No alternatives (Alternatives with other mode of action, e.g. barbiturates, but no MRL)	
Nikethamide	Respiratory stimulant for treatment of acute respiratory disorders	Cattle, pigs, horses, donkey	Doxapram Prethcamide	Annex II all mammalian food producing species Annex II all food producing mammalian species
Pethidine	Analgesia	Horses, donkey	Butorphanol tartrate	Annex II equidae
Agents acting on the autonomic nervous system				
Adiphenine hydrochloride	Parasympatholytic for treatment of colics and spasmodic syndromes	Cattle, sheep, goats, pigs, horses, donkey	Atropine Atropa belladonna Butylscopolaminium bromide	Annex II all food producing species Annex II all food producing species Annex II all food producing species
Carbachol	Parasympathomimetic for treatment of atony of gastrointestinal tract, urinary bladder and uterus. Treatment of ruminal atony and impaction	Cattle, pigs, horses, donkey	Neostigmine	Annex II all food producing species
Prifinium bromide	Parasympatholytic for treatment of gastro-intestinal and urinal tract spasms	Cattle, horses, donkey	Atropine Atropa belladonna Butylscopolaminium bromide	Annex II all food producing species Annex II all food producing species Annex II all food producing species
Sinefrene	Treatment of shock, cardiac syncope and anaphylactic emergencies	Cattle, pigs	Epinephrine Ergometrine maleate	Annex II all food producing species <i>Annex II All mammalian food producing species</i>
Yohimbine	Reversal of effects of α_2 - antagonist, e.g. Xylazine	Cattle, deer	No alternatives	
Etorphine	Neuroleptanalgesia	Cattle	No alternatives	

Substances	Indication	Species ³	Examples for alternatives	MRL Status for these alternatives ⁴
Miscellaneous				
Aminopromazine	Spasmolytic for treatment of gastro-intestinal, bronchial and genito-urinary tract spasms	Cattle, sheep, pigs, horses, donkey	Isoxsuprine Butylscopolaminium bromide Clenbuterol According to the indications there are several different drugs available	Annex II bovine, equidae Annex II all food producing species Annex III bovine, equidae