

	<b>Sector:</b> Dogs, Cats and New Pets (NP)		
	<b>Date:</b> 16/10/2020	<b>Problems related to</b>	
	<input checked="" type="checkbox"/> Meeting <input type="checkbox"/> tel <input type="checkbox"/> email	<b>Budget:</b> E	
	<b>Participants:</b> Jean François ROUSSELOT; Eric GUAGUERE; Claude MULLER; Isabelle GOY-THOLLOT; Dan ROSENBERG; Sylvain LARRAT; Eric ASIMUS; Séverine BOULLIER	<b>Application of the Cascade:</b> C	
	<a href="#">Comments/details post meeting</a>	<b>Other problem:</b> A	

**General comments:**

**Human medicinal products (HMP) under restricted prescription (RP):**

- What can we do when adverse effects occurred in pets with such HMP, as there are not any other available option under RP ?

Indeed, the only remaining solution is the extemporaneous preparation, if the active substances are accessible. Without forgetting to register pharmacovigilance declarations.

- Difficult accessing the MHP in case of daily administration (eg. diazoxide in case of ferret insulinoma).

Indeed, knowing that modification of regulation is unlikely, as soon as the main reason for restricted prescription (RP) is to avoid the administration by the owner himself. Thus the only remaining solution is the extemporaneous preparation.

**Unsuitable packaging :**

- How to comply with the law when deconditioning liquids ?

Indeed, deconditioning is only acceptable if there is no tampering with the primary packaging => The only possibility is the administration by the veterinarian.

- and in case of critical antibiotics ? Should be discussed with DGAL

Pathology	Species concerned: Dog (CN) Cat (CT) NP	Problem encountered (Economic:E / Cascade: C / Other: A)	Type (E/C/A)	Alternatives identified	PRIORITIES defined in meeting Major: M minor: m
Bacterial infections	CN, CT	Lack of non-critical ATB IV injectable (eg. cefalexin, cefazoline): wish for veterinary medicinal products (VMPs) with a non-modifiable price (unlike HMP ordered from wholesalers). Cefazoline IV not registered in restricted prescription (PR) but only reserved for local authorities (case of CIP codes "5").	C, A, E	RILEXINE POWDER FOR INJECTION 1 G, administer IV (see iRCP). Human medicinal products for IV injection (non-critical ATB): Ampicillin inj. Supplied by pharmacies AUGMENTIN IV available	MAJOR 1
Anaemia due to EPO deficiency (end-stage renal disease)	CN, CT	Darbopoietine not accessible (to avoid misuse - Not in Appendix I of the order amending Art 5141 -112)	C	Darbopoietin Dialysis	MAJOR 2
Analgesia (cervicofacial pruritus)	CT, NP	Wish of a veterinary presentation adapted to small animals, as there is no response to veterinary analgesics.	A	Oral gabapentin	MAJOR 3
Vasoplegic shock	CN, CT	Noradrenaline RA for dental use. This medicinal product should be accessible to all veterinary care facilities. Otherwise, risk of death for dogs/cats	C	Adrenaline has a more species-dependent action. Noradrenaline only accessible in CHUV.	MAJOR 4
Oncology	CN, CT	Hospital reserve (change from 01/07/19 on hospital prescription) => acute problem as widely used	C	Chlorambucil (CHLORAMINOPHENE)	MAJOR 5
Bacterial infections	NP (reptiles, etc.)	No MA / galenic suitable for first-line antibiotics. Sparse PK/PD data apart from critical antibiotics, especially in reptiles: need for studies / exemptions	C/A	Only ATB available for reptile, birds, amphibians, rodents = with enrofloxacin (4 AMM)	MAJOR
Chlamydiosis	NP (Birds)	MA powder for oral solution: permanent supplier shortage + inappropriate galenic dosage. Need for oral and injectable formulation (inj for hospital use only) ORNICURE (Doxycycline from OROPHARMA) exists in 4x130 mg sachets but orders are not successful. ... According to iRCP, MA Doxycycline for poultry - unsuitable packaging: - Powder for drinking water: DOXIPULVIS 500 MG/G (SP Veterinaria), DOXYVETO-C 433 MG/G (VMD), GALLUDOXX 433 MG/G (Huvepharma), RONAXAN 500 MG/G (Dopharma) - Concentrate for oral solution: DOXYSOL 10% (KARIZOO), SOLDXIN 100 MG/ML (Vetpharma)	A	Doxycycline tablets (DOXYTAB VET. 15 & 50 MG TABLETS FOR DOGS AND CATS) Oxytetracyclines but their bioavailability is too variable	MAJOR
Fish drugs	NP (fish)	<a href="https://www.koi-prestige.com/soin-du-koi/medicaments-poisson/">Over the counter selling of AB, API/APE, anaesthetics, formalin, malachite green etc. see for example https://www.koi-prestige.com/soin-du-koi/medicaments-poisson/</a>	A	Only MA for Pisces (see SPC) = FLUMIQUIL 3% powder (flumequine)	MAJOR

### Difficulties accessing the drug

Serious gastrointestinal infections, anaerobic microbial infections	NP, CT	Restricted prescription (RP) for Metronidazole injectable (IV)	C	Metronidazole IV in a hospital emergency	MAJOR
Ventricular arrhythmias (German shepherd, Boxer)	CN	Oral and injectable Mexiletine not available (no access in France)	C	Oral and injectable Mexiletine (no available VMPs)	MAJOR
Appetite stimulating anxiolytic	CT	No oral mirtazapine accessible: reconditioning necessary	A	Mirtazapine ointment was granted marketing authorisation in the centralised procedure on 10/12/19 but is unlikely to have been marketed by DECHRA yet.	MAJOR
Oncology	CN, CT	Access to HMPs* subject to RP, reserved for hospital prescription  *see opposite: substances proposed by ANMV (March 2020) for inclusion on list III provided for in Article R. 5141-122 of the French Public Health Code.	C	Bleomycin*, dacarbazine*, epirubicin*, etoposide*, 5FU*, vinorelbine*, Gemcitabine, Procarbazine, Temozolomide, Actinomycin D, Mechlorethamine, Docetaxel, Bortezomib, Thalidomide. Recombinant asparaginase*	MAJOR
Respiratory aspergillosis	CT, NP (parrots, hawks)	Treatment of choice in the literature includes voriconazole ± amphotericin B for injection. Voriconazole (VFEND) is restricted (risk of drift?) and requires oral voriconazole (1 single oral HMP: VFEND 40 mg/ml).	C	Itraconazole, but better safety with voriconazole (VFEND).	MAJOR
Egg retention	NP (Birds)	Prepidil (topical gel) under restricted prescription.	C	Surgery on dying animal...(no dilation of the cervix => abdominal egg laying). Purified pork sperm Dinoprostone not effective.	MAJOR
<b>Unsuitable galenic or packaging</b>					
Anticoagulant	CT	Very low appetite for clopidogrel in cats	A	Clopidogrel (22 HMP + 2 in combination with aspirin)	MAJOR
Bacterial infections	NP (rabbit, hen)	Inappropriate packaging: e.g. ADJUSOL - 100ml -> treatment of 30kg of rabbit for 10 days or 1 rabbit of 1.5kg for 200 days...	A	Marketing authorisation for rabbit, chicken but galenic or inappropriate presentations	MAJOR
Ferret insulinoma	NP (ferret)	Diazoxide requirement (PROGLICEM) . Only available in humans as capsules under RP): inappropriate galenic. Prevalence of the disease: 3,000/100,000 (3%)		Manufacture by the ENVA pharmacy Prednisolone tab.	MAJOR
Vaccines for Marek's disease and coccidiosis	NP (hen)	Inadequate packaging: maintenance of diseases that could be prevented => use of antibiotics as treatment rather than vaccines as prevention. 12 million "pets" poultry (// 7 million dogs): enthusiasm for Indian running ducks that consume slugs and are compatible with permaculture.	A	Industrial livestock vaccines 1000 or 5000 doses	MAJOR
External or internal parasites (red mites)	NP (Poultry)	Unsuitable packaging Small EXZOLT bottle = 150 € (=> unpackaging required), 150 ml <=> 2x2tmts at 7 days interval for 250 hens	A	Selamectin (STRONGHOLD kitten) Fluralaner (EXZOLT)	MAJOR
Pituitary adenoma (prolactinoma)	NP (Rat)	Veterinary medicinal product (cabergoline) inadequately dosed for a rat => too large volume mechanically impossible to administer to a rat (<=> 1 vial of 4 mL every 2 days)	A	Preparation by pharmacy: Complicated repackaging due to intermittent availability and waiting, risk of rat death)	MAJOR
Ophthalmic eye drops	CN, CT	Antivirals Immuno-suppressive, other than ciclosporin. In particular, a tacrolimus preparation would be beneficial Another formulation for dexamethasone. FRADEXAM is dexamethasone phosphate and it would seem that acetate (MAXIDROL) has a better ocular penetration.	A		
Antiglaucomatous	CT, NP	No veterinary antiglaucoma prescribed for chronic glaucoma	A	Prescription of human eye drops:TRUSOPT (Dorzolamide), TIMOPTOL (timolol) or COSOPT (dorzolamide+timolol)	MAJOR

Difficulties accessing the drug					
Hypoalbuminaemia	NP, CT	Human albumin 5% IV: not accessible	C		minor
Epilepticus status	CN, CT	Phenobarbital 200 mg/4 mL IV: Hospital reserve <a href="#">List II</a> Midazolam IV: Hospital reserve, orders possible	C/E		minor
Epilepticus status (shunt)	CN, CT	Levetiracetam IV: Hospital reserve <a href="#">List I</a> , possible orders	C		minor
Dysuria (bladder atony)	CN, CT	Oral betanechol: not marketed in France, preparation possible in some pharmacies	A		minor
Dysuria	CN, CT	Oral alfuzosin: wish for a veterinary presentation	A		minor
Refractory ventricular arrhythmias	CN	IV amiodarone: Restricted prescription (list 2012)	C		minor
Stomach ulcers or antacids	CN, CT, NP	Wish for veterinary presentation No omeprazole MA for CN, CT or NP => Frequent cascade.	A	Omeprazole, pantoprazole IV and oral Esomeprazole (human).	minor
Monovalent vaccine	CN, CT, NP (ferret)	Monovalent vaccine does not exist for: C, H, P, Pi. <b>However, the claimed durations of immunity are not the same, and this would avoid overvaccination in a context of reluctance to vaccination in France.</b> R, C and P in cats where the difference in duration of immunity is even more obvious than in dogs (almost 9 years on typhus, compared to about 3 years depending on the epidemiological conditions of R, C) Also true for ferret with vaccine against canine distemper (C)– many allergic shocks during vaccination in this species, risk increased by unsuitable vaccines	A		minor
External parasites <a href="#">fleas/ticks tablets</a> Internal parasites <a href="#">toxocarosis</a>	CN, CT	Lack of targeted, broad-spectrum presentations against: <a href="#">External parasites (flea ± ticks)</a> , in tablets <a href="#">Intrenal parasites (toxocara)</a> : wish for a targeted nematocide (as regard to zoonotic risk), which is also larvicidal, in tablets and spot-on, for dogs and cats as this currently exists only in combination with other molecules	A		minor
Analgnesia, animal welfare, quality of life Analgnesia	CN, CT  NP (rabbit, rodent)	Oral buprenorphine, Tramadol SR, Cannabidiol extract: wish for a VMP  Buprenorphine slow release available in USA - not available in Fr Butorphanol slow release - not available in Fr No oral Tramadol	A  A	  Doubts about the actual efficacy of meloxicam (METACAM - existing MA for guinea pigs) insofar as pharmacodynamic studies showed a much higher dose required than that mentioned in the SPC for rodents)	minor  minor
Bone healing (absence of fusion of humeral condyles)	CN	Bone Morphogenetic Protein: Unavailable	A		minor
Chemotherapy side effects	CN	Dexrazoxane, cardiac protector: hospital reserve	C		minor
Hemorrhagic cystitis	NP	Mesna (prevention of hemorrhagic cystitis): Hospital reserve	C		minor
Heavy metal intoxication	NP (birds)	Succimer (DMSA) with restricted prescription while Succimer PO used at home in other countries	C	Ca EDTA injectable IM	minor
Fish anaesthesia	NP (fish)	Imported tricaine.	A	European import	minor
Bacterial infections	NP (rabbit)	Antibiotic requirement with good accumulation in pus/bone - rabbit cascade	A	Azithromycin	minor
Hypocalcaemia	NP (Reptiles)	Frequent cascade	C	Ca gluconate	minor
Candidiosis	NP (birds)	Frequent cascade	C	Nystatin	minor

**Unsuitable galenic or packaging**

<b>Anxiolytic</b>	<b>CT</b>	Presentation with mint not suitable for cats	A	Oral fluoxetine (RECONCILE)	<b>minor</b>
<b>Bacterial infections</b>	<b>CT, NP</b>	Wish for a veterinary antibiotic for topical application	A	Local antibiotic (other than fusidic acid)	<b>minor</b>
<b>Environmental anti-fungal treatment (ringworm)</b>	<b>CT, NP (Guinea pig)</b>	Existed as a VMP (CLINAFARM) but withdrawn	A	Enilconazole spray	<b>minor</b>
<b>Renal insufficiency</b>	<b>NP (ferret, rabbit, rodent, birds)</b>	Lack of oral formulation for appropriate dosing according to weight of patients	A	Furosemide for injection/tab.	<b>minor</b>
<b>GnRH vaccine: ferret sterilization, adrenal ferret disease, possible poultry reproductive diseases management.</b>	<b>NP (ferret, poultry)</b>	Unsuitable packaging: 12*150mL. Scientific publications on GONACON (US). No data on IMPROVAC.	A	IMPROVAC	<b>minor</b>