

Being addressed	Solution exists but there are economic issues	Problem of cascade application	Existing solution	No solution in sight Expert input awaited
-----------------	---	--------------------------------	-------------------	--

## Cattle

Table updated following sector meeting on 25/11/2019

Participants: Corinne Jaureguy (veterinary practitioner, SNGT representative, veterinary drugs committee, veal calves), Lionel Grisot (veterinary practitioner, member of CSMV, dairy cattle).

Pathology	Therapeutic alternatives identified	Health impact	Economic impact	Comments
<b>Cryptosporidiosis</b>	GABBROVET/ PAROFOR  Halofuginone	5	5	No curative treatment with cryptosporidiosis indication. Misuse of GABBROVET. Awkward situation. Halofuginone Dairy sector: poses no problem. Suckling sector: very complicated to implement effective disinfection measures. Problem of zoonosis in immunocompromised persons.
<b>Respiratory mycoplasmosis</b>  <b>Other respiratory vaccines</b>	No vaccine in France	4	5	The UK has issued a temporary authorisation for importing a US vaccine (doubtless an autologous vaccine) Sector requesting import option. Ceva appears to have a vaccine against <i>Mycoplasma bovis</i> in Asia ( <a href="https://www.ceva.asia/Products/Cattle/Vaccines">https://www.ceva.asia/Products/Cattle/Vaccines</a> ) Problem more acute in "fattening". The avenue of autologous vaccines for veal calves may prove to be too lengthy a process. SALMOPAST often out of stock. Quality controls on these types of vaccine causing regular interruptions to supply.

Being addressed	Solution exists but there are economic issues	Problem of cascade application	Existing solution	No solution in sight Expert input awaited
<b>Besnoitiosis</b>	No bovine MA - sulphonamides at high doses (far higher than currently authorised doses for cattle => current presentations not suitable) – vaccination possible (no vaccine available in Europe) – 1 vaccine exists in Israel (tachyzoite culture)	<b>4</b>	5 (emergency)	Geographical extension along the Rhone Valley linked to commercial transactions (healthy carrier animals). Spain: impacted European country. Sulphonamides ineffective. Animal cull and elimination of seropositive animals. Eradication plan in place (SNGTV committee).
<b>Piroplasmosis</b>	Only one drug with MA = CARBESIA	<b>4</b>	5 French Overseas Departments	Withdrawal period too long for meat (meat 213 days, milk 6 days). Non-adherence to waiting period linked to oversight by farmers. There must be clinical signs for the treatment to be applied. Hardly used any more as preventive treatment. Essential for curative treatment, the only molecule available. Anti-tick treatment will reduce incidence rate but not eradicate the disease (for non-immunised animals). Individual treatment, general treatment for 6 month-old animals.
<b>Ocular infections with corneal lesions</b>	Major lack in this area. Use of ointments and eye drops intended for pets, or intra-mammary ointments with 28-day WP	<b>5</b>	3	EXCENEL not used. Ophthalmic ORBENIN still available in Switzerland without WP. Following the disappearance of ophthalmic ointments, the industry has latched onto forms indicated for injection (not suited to the requirement).
<b>Infections of peritoneum, kidneys and urinary tract, and of central nervous system</b>	Antibiotics authorised for other indications AMPHOPRIM for urinary infections, the only MA with short WP.	<b>3</b>	3	Uncommon infections. All the new antibiotics authorised only have MA for respiratory infections. Problem of establishing appropriate dosage. Dairy sector: fairly straightforward cascade in terms of WP
<b>Tranquillisers</b>	No products easy to administer by mouth for cattle – Use of xylazine injection, with difficulties relating to administering injection (restraining), volume injected	<b>2</b>	4	Need for oral administration drug Darts must be used (tricky). Acepromazine-based drug.

Being addressed	Solution exists but there are economic issues	Problem of cascade application	Existing solution	No solution in sight Expert input awaited
	(very small volume for young heifers) and action duration (quick-acting and short duration)			
<b>Papillomatosis</b>	None	<b>3</b>	2	Autologous vaccine may be the solution, but no autologous virus vaccines for ruminants. Magnesium widely used, more or less successfully. Not much of a problem for the suckling sector, more so for the dairy sector.
<b>Ringworm</b>	1 vaccine exists (RINGVAC BOVIS), but not yet available. MA for the treatment (griseofulvin) withdrawn, local application of IMAVERAL sometimes used.	<b>2</b>	3	Local application of IMAVERAL, acts on existing lesions (damages leather). Leather goods manufacturers pay cost of vaccines directly to abattoirs. IMAVERAL is an unwieldy treatment that is difficult to apply. Risk of environmental pollution. Zoonosis. Numerous herbal products are used. Common practice is massive intake of oral iodine => impact on consumers? Knowing that injectable potassium iodide has WP=0.
<b>Neosporosis</b>	No. Disinfection possible by means of sanitary prophylaxis, although this can be difficult to do	<b>1</b>	1	Little impact on bovine livestock.
<b>Nodular thelitis</b>	None	<b>1</b>	1	Unsuccessful attempt with injectable iodine. Does not often occur, if it does, culling required.
<b>Crippling gastroenteritis/abomasum paralysis</b>		<b>3</b>	1	No requirement for dairy cattle. Committees working on protocols with or without metoclopramide. Abomasum ulcer: nothing. No MRL for omeprazole
<b>Fungal mastitis (Candida, Aspergillus, etc.)</b>	No drugs	<b>1</b>	1	Very rare
<b>Mastitis caused by algae (Prototheca, etc.)</b>	No treatment	<b>1</b>	1	Very rare
<b>Antispasmodic drugs</b>	SPASMIPUR	<b>1</b>	3	Short withdrawal period

Being addressed	Solution exists but there are economic issues	Problem of cascade application		Existing solution	No solution in sight Expert input awaited
<b>Paramphistomosis</b>	No bovine MA – Oxyclozanide at different dose from the one authorised for treatment of fasciolosis.	<b>4</b>	5	Oxyclozanide used in cascade approach. Farmers no longer deworm and prefer to use herbal remedies, poses an animal health problem. Specific WP required for paramphistomosis. MRL study on milk required. Treatment in dry period, re-infestation period. Ideal use would be at calving time.	
<b>Dicrocoeliasis</b>	No bovine MA – Albendazole	<b>3</b>	3	Cascade approach applied. WP issue. Treatment during periods when WP is not an issue.	
<b>Local anaesthetic drugs</b>	PROCAMIDOR	<b>1</b>	3		
<b>Joint infections.</b>	Authorised antibiotics: LINCO-SPECTIN (lincomycin + spectinomycin). Off-label use of florfenicol	<b>5</b>	4	Extension of florfenical MA required. Use at normal dosage.	
<b>Anthrax</b>	ANTHRAX imported from Spain	<b>5</b>	4	There is an ad hoc solution.	
<b>Teat injuries (wounds, chaps, scratches, etc.)</b>	The only topical treatment is COTHIVET	<b>2</b>	1	DERMAFLON does not treat anything. COTHIVET has a highly drying effect. Need for a healing ointment complementing antibiotics. COTHIVET in combination with iodine and honey, or teat isolation, currently used.	
<b>NSAIDs</b>	Injectable NSAIDs available			Lack of antipyretics or paracetamol, MA only for swine, bovine MRL needed. Lack of topical products, hygiene products sold instead. No topical-application capsaicin (QUTENZA skin patch for human use).	

**Herbal medicine:** the sector uses numerous herbal products for different therapeutic applications. This poses a real problem as regards lack of MRL, products without MA, dietary products not subject to control. Food manufacturers offer these types of products through selling dietary products directly to farmers.

Being addressed	Solution exists but there are economic issues	Problem of cascade application	Existing solution	No solution in sight Expert input awaited
-----------------	---	--------------------------------	-------------------	--

**The priority axes which have been identified are:**

1. A requirement for topical treatment: Antibiotics for application on udders, eyes, etc.
2. Paracetamol, bovine MRL required.

The requirements stated above are crucial for animal welfare.

3. Oral administration tranquilisers.
4. Tailored anti-parasitic treatments to prevent resort to cascade. MRL on milk required.