

Last update: March 2020

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|-----------------|-------------------------------|------------------------|-------------------|----------------------|
| | economic issues | of cascade application | | Expert input awaited |

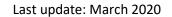
RABBITS

General comment:

Drugs specifically authorised for use in rabbits are required. Apart from the economic problems posed by adherence to 28-day standard withdrawal period, use of cascade is not always possible: lack of data for establishing treatment protocol for rabbits, pharmaceutical form not adapted to administration in drinking water, for example.

ANMV update 2018 and sector meeting on 19/03/20 regarding HDV

| Pathology | Therapeutic alternatives identified | Health impact | Economic impact | Comments | ANMV (French Veterinary Agency) comments |
|---|---|------------------|--------------------|--|---|
| Pasteurellosis | AB Autologous vaccines. Farming techniques. | 5 | 5 | Widely used antibiotics for treatment of pasteurellosis, therefore significant health impact. Costly if you take into account farm and abattoir economic losses. Commercially available vaccines ineffective (publications by scientists). Autologous vaccines have limited effectiveness. NB: INRA (agricultural research institute) research into development of genetic resistance to Pasteurella bacteria. Suspected link between mycoplasmosis (cf. below) and pasteurellosis: demonstrate and then plan development of bivalent vaccine? | Authorised vaccine: Landavax® containing <i>Pasteurella multocida</i> (marketing stopped in 2013) |
| Respiratory illnesses caused by mycoplasma and Bordetella | AB | 5 | 5 | Presence of mycoplasma rarely shown: because unusual, or due to laboratory problems? Link with Pasteurella (cf. above) Bordetella: no studies available enabling their role to be pinned down (pathogenic, permissive, co-pathogenicity). | |
| Coccidiosis | Additives authorised for use in food. | 3 | 3 | Formulations containing sulfadimethoxine with MA, but sector wants their use restricted and a longer WP imposed due to risk of residues (food contamination?), poor end product image and hindrance to export. No residue issues if used in drinking water, but | |





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| Clostridium perfringens or Clostridium spiroforme enterotoxemia | AB | 3 | 3 | solubility compromised by acid pH. Veterinarians are waiting for additional studies on these MA in order to be able to prescribe more safely. Limited effectiveness of additives (many types of resistance). Bacteria which contribute to digestive disorders: oral antibiotics are much used in treatment of Clostridia/EEL+/-Coccidia, inevitable impact on resistance to antibiotics. No vaccines containing <i>C. spiroforme</i> No studies on vaccines with <i>C. Perfringens</i> MA. Farmers who have used these vaccines have not found them effective and are not willing to use them again without clinical studies that allow a | Available vaccines for rabbits: Coglavax® and Coglamune® containing Type A, C and D Clostridium perfringens but notC. spiroforme. Nothing on C. Spiroforme (ANMV 2018) |
|---|--|---------------------|---|--|--|
| Ringworm | No formulation with MA for the species (parasiticides for ruminants and swine, Imaveral) Foreign vaccines imported for Trichtophyton, none for Microsporum, and no scientific studies on these vaccines for ringworm in rabbits. | 3 (zoonosi s) | 3 | Protocol to be established. Ringworm does not cause mortality on farms and, other than extreme cases of zoonosis of family members or even workers, visitors or neighbours, farmers are not willing to spend a lot of money on treatment giving limited results (no scientifically-endorsed protocols on ringworm in rearing). | Request for MA for vaccine never submitted. |
| Pinworm | No formulation with MA (or MRL) for the species (parasiticides for swine, ruminants, poultry) | 2 | 2 | Cascade allows use of parasiticides (benzimidazole) for swine, ruminants and poultry but there are two problems: 28-day standard withdrawal period and dissolving in drinking water not envisaged for these products (except for Solubenol and Flimabo, designed to be mixed with drinking water). | Panacur® (drinking water) |
| Follicular stimulation (follicular maturation) | Farming techniques. Prostaglandins (still off-label!) | 1 | 2 | GnRH given on day of AI but cannot be a replacement for PMSG given a few dozen hours beforehand. There needs to be a specific MA for PMSG (widely used). | |
| Ear mange | No formulation with MA for the species | 1 | 1 | Uncommon illness on modern farms, found above all in farms with old material and in farm-rearing. | |



and cost too high for mass

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| Inflammation | Avermectin used in cascade approach. No formulation with MA for the | 1 | 1 | | ess of anti-inflammatory in combin | | |
| | species | _ | _ | paracetamol and "Met | | | |
| HV strain staphylococcus | AB, autologous vaccine | 4 | 4 | show that this strain Vaccination studies are | o needed on antibiotic treatme cocols? | ean clone. | Autologous vaccine (partial solution, not complete eradication) |
| LV strain staphylococcus | AB | 4 | 3 | | despread. Diverse strains, some n humans (publications on this area | | Autologous vaccine (partial solution, not complete eradication) |
| Severe true colibacillosis E. coli O103 PCR eae-positive or E. coli PCR eae- positive with lesions | Autologous vaccine Vaccine being prepared? Fluoroquinolones (apramycin in drinking water could be used although WP is a problem, whereas there is an MA for apramycin in feed which has a 0-day WP and studies carried out by administration of APRALAN soluble powder for oral solution!) | 3 | 3 | | seriously jeopardises affected farn is (scientific analyses of autologou iited. | | No application for vaccine M/has been submitted. Cf. apramycin application (ANSES notice 28/10/2013) |
| New variant HDV | ANMV meeting with the sector on 19/03/20: Vaccines for new variant HDV: insufficient efficacy, SPC protocols called into question | 3 | 5 | market: | | | ANMV meeting with the sector on 19/03/20: ➤ ATU possible if a licence holder identifies a strain that differs sufficiently from the |

weeks old, but that is the age when sent for slaughter: far too

new variant of the 2 current



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| Very to of farm 26% in action of cess | ation during fattening. ense situation, with 28% ns affected in 2018 and n 2019, in spite of the plan implemented. 10% sation of activity linked V in 2018 and 35% in | late in a contaminate • ERAVAC (Hipra): SPC | ed environment recommends vaccination after 30 d | vaccines and if the acceptable to the so (request assessme) Pharmacovigilance is highly useful, even concerns usage no in SPC. Exchanges regarding different effective vaccination protocolars usefully be shad contrast, avoid using doses, because this no purpose and is expenditure. | sector nt). I feedback en if it t indicated ng ols can ared. By ng half s serves |