

NOAH Briefing: Responsible Use of Antibiotics in Laying Hens:

Best practice and an evidenced-based approach to macrolide policy and prescribing

Current position: *laying hens as a responsible use sector*

- The RUMA Targets Task Force Report 2020 reported that the laying hen sector achieved their set targets¹.
- No HP-CIAs (in veterinary medicine known as AMEG Category B antibiotics²) i.e., the fluoroquinolones, 3rd and 4th generation cephalosporins and colistin were used in 2019. The target to maintain less than 0.05% HP-CIA/Category B antibiotic days treated was achieved¹.
- Industry codes have strict conditions around the use of antibiotics e.g. colistin and 3rd and 4th generation cephalosporins cannot be used under the BEIC Lion Code. In addition, fluoroquinolones cannot be used in day old chicks, and any other use can only be where no other medication is appropriate to maintain bird welfare¹.
- The laying hen sector has low overall levels of antibiotic use and the aim now is to maintain this responsible use position in the face of biosecurity and disease control challenges.

Challenges: *disease challenges and a responsible approach to prescribing*

- As shown in the UK Veterinary Antibiotic Resistance and Sales Surveillance Report (UK-VARSS) 2019, fluctuations and sometimes increases in antibiotic use can occur due to disease challenges in flocks e.g. treatment data recorded in 2019 showed that there was a higher incidence of enteritis³.
- Disease caused by *Mycoplasma spp* creates another significant challenge including the control of e.g. *Mycoplasma gallisepticum*, which is the most economically significant mycoplasma pathogen of poultry worldwide and *Mycoplasma synoviae*, which is also important in layers. Free range systems and multi-age units add to the challenge of cross transmission. Vaccines and antibiotics, alongside biosecurity, have a role to play in taking a strategic, whole site approach to managing disease.
- Farmers, practising vets and industry bodies are responding to these challenges and considering how best to prevent and control disease whilst maintaining the responsible use of antibiotics.
- Supply chains, through egg packers and retailers, have a pivotal role to play in developing and implementing policies that reflect current best practice.
- Individual supply chain approaches, which prohibit or severely restrict the use of certain Category C antibiotics (non HP-CIAs) such as macrolides, risk driving resistance through the greater use of a smaller number of antibiotic classes and restricting the clinical decision making choices available to vets.
- Unfortunately, a varied approach persists in the UK, where a vet can, taking an evidenced-based responsible use approach, prescribe a macrolide antibiotic for one client, but not for another with the same clinical circumstances due to supply chain restrictions. Macrolides are vitally important for certain endemic poultry diseases, and this scenario creates significant challenges for poultry vets

managing Mycoplasma in flocks, including free range systems. It hampers responsible use by driving the use of antibiotics that may be less clinically effective in the first instance, leading to longer treatment times and therefore increasing the opportunity and risk of resistance developing.

- These challenges faced by vets clearly demonstrate that a science-based approach is not being applied across various supply chain and a pre-competitive approach remains to be established.

Best practice: *taking an evidenced-based and pre-competitive supply chain approach*

- Good management practices, effective biosecurity, appropriate housing, nutrition, and veterinary oversight that allows vets to use the tools authorised and available to them, will continue to help drive the responsible use of antibiotics in laying hens.
- By taking a science-based and pre-competitive supply chain approach, appropriate measures can be used to help vets and farmers safeguard the health and welfare of flocks, whilst driving forward the responsible use of antibiotics. The benefits of taking a pre-competitive approach to the responsible use of antibiotics would mean that flocks, at local and national level, can access best practice in veterinary care that reflects responsible, evidenced-based prescribing.
- Science-based policies and practices would benefit the health and welfare of all flocks such as nationally recognised expert industry guidance. This includes the EMA AMEG advice and categorisation of antibiotics², where antibiotics in Category B ‘Restrict’ are the fluoroquinolones, 3rd and 4th generation cephalosporins and colistin. Antibiotics in Category C ‘Caution’ include macrolides, which should be considered as a viable treatment option, when prescribed and used responsibly, and in accordance with EMA AMEG advice. This categorisation is recognised by the UK regulator of veterinary medicines, the Veterinary Medicines Directorate (VMD) and used in the UK VARSS Report³. It is also recognised by the Food Industry Initiative on Antimicrobials (FIIA) in their Antibiotic Policy⁴. All supply chain, packer and retailer, policies should support responsible use by clearly acknowledging the practising vet as the final decision-maker for antibiotic prescribing.
- Practising vets, with independent clinical decision making, can directly support the responsible use of antibiotics, deciding on the most appropriate treatments, for each producer and flock. Their role is however hampered when restrictions, that are not based on science, are applied to legally authorised veterinary medicines. Vets with flocks under their care need to use their full professional clinical judgement and knowledge of the farm, including considering the need to protect or restore bird health and welfare, and to safeguard public health through the responsible use of antibiotics. The choice of antibiotic, taken only by vets, and using the AMEG veterinary decision support tool, allows them to responsibly prescribe the antibiotic they know to be most effective in the first instance, and will reduce the overall use of antibiotics on a farm.

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References:

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2. EMA AMEG categorisation of antibiotics for use in animals for prudent and responsible use: www.ema.europa.eu/en/documents/report/infographic-categorisation-antibiotics-use-animals-prudent-responsible-use_en.pdf
3. UK Veterinary Antibiotic Resistance and Sales Surveillance Report UK-VARSS 2019: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/950126/UK-VARSS_2019_Report_2020-TPaccessible.pdf
4. FIIA Antibiotic Policy: www.farmantibiotics.org/fiia-antibiotic-policy/ and www.farmantibiotics.org/progress-updates/retail-foodchain/