

Striving to minimise the use of antibiotics in the pig sector, consistent with responsible human and food-animal medicine.

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Background

The use of antibiotics in livestock is attracting increasing interest from consumers, regulators, retailers and parliamentarians. Use in the pig and poultry sectors, in particular, is coming under intense scrutiny because of the nature of the production systems and perceived high use of antibiotics. Data reported by the Veterinary Medicines Directorate (VMD) indicates that 83% of antibiotic sales for use in livestock in 2014 were of products licensed only for use in pigs and poultry.

The British pig industry takes the issue of antibiotic resistance extremely seriously. After all, the development of resistance has implications for animal as well as human health and failure to address the problem threatens the ability of farmers and veterinarians to effectively treat infectious diseases in pigs and consequently jeopardises pig health and welfare. The true contribution of antibiotic use in livestock to antibiotic resistance in humans is a complex and hotly-debated matter; however it is incumbent on those using antibiotics in both human and animal medicine to do so responsibly. With the lack of new antibiotics being brought to market, it is important that the efficacy of the ones that are currently available is protected.

Antibiotic Stewardship

In 2013 the UK Government launched a Five Year Antimicrobial Resistance Strategy with the overall aim of slowing the development and spread of antibiotic resistance through improved knowledge and understanding, conservation and stewardship of existing antibiotics, as well as stimulation

Antibiotic stewardship:

The use of coordinated interventions to measure and improve the use of antibiotics. Promoting selection of the right drug, at the right dose, administered at the right time in the right way and for the right duration to limit unnecessary antibiotic exposure.

of development of new treatments. The strategy strongly advocates the implementation of antibiotic stewardship programmes in both the human and animal sectors to help achieve this.

The British Poultry Council describes the Replace, Reduce, Refine concept in the context of responsible antibiotic use as part of its Antibiotic Stewardship Scheme, which was launched in 2011. It has been suggested that The Three R's should be used as a framework for antibiotic stewardship programmes in animal agriculture as a way of uniting the sectors. What is clear from this framework is that while reduction of antibiotic use is an important feature of antibiotic stewardship, it is not the sole objective.

REPLACE: Review and replace antibiotics where possible with appropriate alternatives

REDUCE:Reduce the usage of antibiotics, whilst preserving animal health and welfare

REFINE:

Refine the use of antibiotics by ensuring their selection and administration is done responsibly

Pig Industry Antibiotic Stewardship Programme

The following measures outline how the British pig industry aims to achieve and demonstrate responsible use of antibiotics, in line with the Replace, Reduce, Refine concept.

- Capture and collate accurate antibiotic use data from pig farms - using AHDB Pork's electronic medicine book from which anonymised national data on total antibiotic use will be shared with the VMD.
- Benchmark each farm's antibiotic use against other farms of a similar type – producers will be encouraged to, with their vets, analyse trends in the antibiotic use in their pigs and compare with that used on similar farms.
- Extend education in effective disease control strategies industry bodies will ensure pig producers are equipped with the right knowledge and tools to use antibiotics responsibly, minimise their use where possible and explore alternatives.
- Reduce antibiotic use, consistent with responsible human and food-animal medicine – collecting and reporting quantitative and qualitative data on the industry's use of antibiotics will identify specific situations and disease syndromes to target to work towards minimising antibiotic use without jeopardising pig health and welfare.
- Promote veterinary prescribing principles to strictly limit the use of antibiotics of critical importance to human health – a priority of the programme is to maintain the integrity of all classes of antibiotics, but particularly those of critical importance to human health as identified by the World Health Organisation.
- Appoint Stewardship Commmissars who will continually review industry's use of antimicrobials and champion initiatives.

Priorities

There has already been considerable work to progress the above initiatives and the launch of this Stewardship Programme marks the development of a coherent strategy for managing antibiotic use in the pig industry.

Since October 2014 it has been a requirement of Red Tractor Assurance that pig producers collate their total annual antibiotic usage and review this annually with their veterinary surgeon. Until now there has been no mechanism in place for collecting this data from individual farms, meaning valuable data is currently not being shared or utilised. Now, the electronic medicine book for pigs (eMB-Pigs) developed by AHDB Pork and the VMD is available for use by pig producers. It will serve a crucial function in collecting accurate data on antibiotic use from pig farms and, as such, an immediate priority of the Stewardship Programme is to encourage as many pig producers as possible to submit their data regularly using the eMB.

Once industry bodies are confident that the collated usage data is robust, accurate and representative of the national herd, anonymous, aggregated data will be shared with the VMD. AHDB Pork has already agreed a mechanism for sharing such data with the VMD.

The British pig industry is fortunate in that the majority of vets working on commercial pig units are specialist pig vets who are members of the Pig Veterinary Society (PVS), which has published prescribing principles for antimicrobials. The principles advise how the different types of antibiotics may be used in pigs by assigning them to one of three classes. Antibiotics listed under Class 3, such as those of critical importance to human health including third and fourth generation cephalosporins, fluoroquinolones and colistin, are deemed to be products of last resort, only to be used when no other options are available and supported by antibiotic sensitivity testing. These guidelines are continuously reviewed by PVS and modified as necessary as further scientific evidence becomes available.



Achieving a reduction in antibiotic use in the pig industry will require a considerable shift in behaviour within the sector, by both prescribing vets and farmers. The Stewardship Programme recognises this and the need for pig producers and their vets to have access to the right tools and knowledge to maintain and improve the health of their pigs when replacing or reducing antibiotic use. Identifying the causes of disease and the predisposing factors on individual pig farms is key. NPA is already aware of best practice case studies where the use of antibiotics has been significantly reduced or ceased altogether on certain pig farms following interventions such as new vaccination regimes, new or refurbished buildings, improved cleaning and disinfection, and herd depopulation then repopulation with stock free of certain diseases. These measures require significant resource (time, staff, money) and the NPA recognises that for some pig farmers the current challenging economic situation will influence how readily interventions can be implemented. Facilitating peer-topeer learning to disseminate knowledge of best practice is another priority of the Stewardship Programme.

NPA undertakes to communicate and align the activity of the Stewardship Programme with the activity of other industry organisations and forums to ensure a common purpose while avoiding duplication of effort.

Progress of the Pig Industry Antibiotic Stewardship Programme will be evaluated and reported annually.

Electronic Medicine Book

- An electronic version of the existing paper medicine book;
- A convenient way to record and measure antibiotic use so producers and their vets can review and optimise usage;
- Quantities of antibiotic products administered to each age category of pigs is entered, plus the number of pigs present, to calculate usage in mg/kg;
- Access trend reports and benchmark farm usage against that of similar units, to inform decisions about herd health and antibiotic use;
- Future system developments will allow farm management software and mobile apps to interact with the eMB and automatically upload medicine usage data onto the system.



Participation is voluntary, but strongly encouraged by the Pig Industry Antibiotic Stewardship Programme.

Login here: www.pighub.org.uk using your usual Pig Hub and eAML2 username and password.

The Pig Industry Antibiotic Stewardship Programme has been established by the National Pig Association and is supported by AHDB Pork. The Pig Veterinary Society wholeheartedly supports the launch of the electronic medicines book for pigs and backs the NPA in its recommendation that producers use the e-Medicines book to record their antimicrobial use. The Society's veterinary practitioner members must ensure that the health and welfare of the pigs they attend is protected, whilst using antimicrobials responsibly. Pig Veterinary Society members are committed to working with pig producers to advise on, and implement, on-farm initiatives and interventions which help improve pig health and reduce antimicrobial use, as outlined in the overall aims being promoted by NPA. NPA is a member of the Responsible Use of Medicines in Agriculture Alliance (RUMA) and is therefore aligned with the RUMA principles, which can be found at www.ruma.org.uk



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