



Research

AMCRA : center of expertise on antimicrobial consumption and resistance in animals in Belgium

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Keywords: network, antimicrobial resistance, animal, Belgium

Objectives and achievements

AMCRA is a Belgian initiative that was launched in January 2012. From the 'One World, One Health' perspective, AMCRA aims to fight against the selection and spread of antimicrobial-resistant bacteria by promoting reduced and responsible use of antimicrobial agents in veterinary medicine in Belgium. This requires joint action through an industry-wide approach, together with the authorities and all relevant stakeholders: veterinary practitioners, agricultural organizations, the pharmaceutical industry, compound feed manufacturers and the scientific world. In order to accomplish this mission, several strategic objectives were achieved in 2012 and 2013, and more objectives are planned for 2014.

A first and crucial objective achieved involved drafting a study report on the establishment of an electronic database on antimicrobial consumption per animal sector and category, at the veterinarian and farmer levels. The quantification of antimicrobial use in veterinary medicine and corresponding identification of high-level users is a major priority. Indeed, in January 2014 a Belgian swine-farming quality system initiated a data collection programme for providers of antibiotics in the swine-farming industry, which covers approximately 60% of swine farms in Belgium. Further data collection systems are planned for the poultry and veal calf industries, two other 'high use' sectors. With regard to data collection, methodology and calculations, special attention should be paid to harmonization between animal sectors and countries in order to keep data comparable. In addition, data analysis output must produce reliable 'herd-orientated' results as they are the basis for herd-specific recommendations.

A second objective for 2012 was to study the possibility of using zinc oxide (ZnO) at pharmacological doses in swine feed as a possible alternative to use of antimicrobial agents. The report on ZnO included an assessment of environmental issues and questions concerning dosage. Several temporary registrations of pharmaceutical doses of ZnO in feed were granted in Belgium between August and September 2013. In this respect, Belgium is the 11th country in the EU with a (temporary) approval. Also, an agreement has been reached between the Belgian government, compound feed manufacturers and feeding companies to reduce the amount of zinc used as a feed additive from 150 ppm to 110 ppm in the fattening phase. Even though the dosing schedule during fattening leads to a total decrease of 4.5% of the environmental Zn burden, the search for alternatives to both antibiotics and heavy metals should be continued, as resistance to Zn might occur in bacteria and Zn is a potential selector for methicillin-resistant *Staphylococcus aureus* (MRSA).

Furthermore, in 2012 and 2013, several working committees with relevant representatives of all stakeholders concerned were set up per animal species/group (swine, poultry, veal calves, beef cattle and dairy cattle). These committees made

proposals for self-regulation of the animal sectors with respect to the use of antimicrobial agents in veterinary medicine. These proposals include measures concerning production and trade, aimed at veterinarians and farmers. The working committees also worked closely on the establishment of national guidelines on the careful and rational use of antimicrobial agents in livestock animals. The multidisciplinary expertise of all stakeholders involved resulted in the establishment of well-structured and valuable practical guidelines with both general information regarding good herd health, and the correct use of antimicrobial medicines as species-specific information with specific therapeutic recommendations depending on the disorder ('formularies'). Currently, guidelines for pets (dogs and cats) and for horse practitioners are being developed.

Moreover, other challenging aspects were dealt with, for example storage of medicines by veterinarians and farmers which led to drafting of an opinion on the need to hold a stock of antibacterial agents, etc., and the conditions for doing so. More activities are planned, such as drafting proposals to broaden legislation on the prescription and use of medicated feed with a view to centralised electronic data collection on the prescription and use of medicated feed. Also, guidance documents are planned concerning the implementation of alternatives that could reduce the use of antibiotics, with special attention to vaccines (e.g. the correct application of vaccination programmes) and biosecurity measures, for all animal species/groups.

Other challenging objectives are on the horizon, such as discussions with the authorities and the different stakeholders about targets for a specific percentage reduction in antibiotic use in livestock animals by a certain year, or concerning restrictions on the use of the critically important antimicrobials for human medicine in food-producing animals. Furthermore, it is and will remain essential to continue encouraging the different animal sectors and quality labels to provide specifications concerning the implementation of self-regulating measures, and the use of animal health guidelines and formularies.

Many actions have been implemented these last 2 years, but there is still a long way to go. It is only through continuous and committed participation of all stakeholders that the challenging goals of this industry-wide and unique initiative can be met. In this respect, a central aspect of AMCRA's mission is to continue informing veterinarians, farmers and animal owners on rational use of antibiotics by developing information and awareness campaigns and giving presentations for veterinarians and farmers locally.

Would you like to stay informed about our progress and activities? Please visit our website at www.amcra.be. You will find all our guidance documents and reports on finalised objectives, as well as guidelines for veterinarians and farmers, and upcoming events in regard to awareness campaigns.