

It's time to reduce, replace and re-think the use of antimicrobials in animals

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Reducing the use of antimicrobials in food-producing animals, replacing them where possible and re-thinking the livestock production system is essential for the future of animal and public health. Antimicrobial resistance (AMR) is one of the world's most pressing public health issues and the use of antimicrobials in animals contributes to this problem, so limiting their use to the minimum necessary to treat infectious diseases in animals is crucial.

Experts from the European Food Safety Authority (EFSA) and the European Medicines Agency (EMA) have reviewed the measures taken in the European Union (EU) to reduce [antimicrobials](#) use in animals and stress that there is no one-size-fits-all solution. Successful strategies follow an integrated, multifaceted approach which takes into account the local [livestock production](#) system and involves all relevant stakeholders—from governments to farmers.

"It is clear that strategies that are already available can be implemented immediately and will have a positive impact on levels of antimicrobial resistance. At the same time, there is a need for innovative solutions – we need to find alternative ways to prevent and treat bacterial infections in animals," says EFSA's Executive Director, Dr. Bernhard Url.

"There are only a few new antibiotics in the development pipeline, hence those already available need to be used responsibly, both in humans and animals. Collecting data on AMR and antibiotic consumption is key to putting into place effective measures to control AMR and retain the

effectiveness of antimicrobials for the benefit of public and animal health", says Professor Guido Rasi, EMA's Executive Director.

Measures

Control strategies that have been important drivers for change include setting of national targets to reduce antimicrobial use.

The use of antimicrobials in animals should be reduced to the minimum that is necessary to treat [infectious diseases](#). Other than in exceptional cases, their use to prevent such diseases should be phased out in favour of alternative measures.

Critically important antimicrobials for human medicine should only be used in animals as a last resort.

Alternatives to antimicrobials that have been shown to improve [animal health](#) and thereby reduce the need to use antimicrobials include vaccines, probiotics, prebiotics, bacteriophages and organic acids.

However, reducing the use of antimicrobials and finding alternatives is not enough. There is a need to re-think the livestock system by implementing farming practices that prevent the introduction and spread of the disease into farms and by considering alternative farming systems which are viable with reduced use of antimicrobials. Education and awareness of AMR should be addressed to all levels of society but in particular to veterinarians and farmers.

What is the impact on animals and food?

Experts concluded that it is reasonable to assume that reducing antimicrobial use in food-producing animals would result in a general

decrease in antimicrobial resistance in the bacteria that they carry and the food products derived from them. However, they could not quantify the impact of single reduction measures or alternatives to antimicrobials on levels of antimicrobial resistance in food-producing animals and food due to lack of data.

Next steps

In February 2017, EFSA and the European Centre for Disease Prevention and Control (ECDC) will publish their annual report on the levels of antimicrobial resistance in food, animals and humans across the EU.

EFSA, EMA and ECDC are also working on a report that assesses the link between consumption of antimicrobials and development of resistance in bacteria found in animals and humans – due to be published at the end of July 2017.

By the end of 2017, the three agencies will propose a list of indicators enabling risk managers to monitor the reduction of [antimicrobial resistance](#) and the use of antimicrobials in humans, food-producing [animals](#) and food.

More information: See the infographic:
[www.efsa.europa.eu/en/interact ... microbial Resistance](http://www.efsa.europa.eu/en/interact...microbial_Resistance)

Provided by EFSA

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