



AROUND US

The main events of epidemiological interest in the last months in the European Union and in the neighbour countries

OIE activities on Antimicrobial Resistance

Background, key words

Antibiotics, also known as antibacterials and antimicrobials, revolutionized the practice of humans and animals medicine during the second half of the 20th century. Antibiotics are essential for treating diseases in both humans and animals. Their availability and use has made possible the treatment of infections that once were lethal, saving human lives and containing diseases; in particular, animal diseases that are foodborne or directly transmissible to humans.

The use of antimicrobial agents has increased global health, including animal health, which represent a key factor in increasing animal welfare, food security and food safety.

But as time goes on, the success of antibiotics has been impeded by the insurgence of resistant bacteria. In 2014 in response to major superbug outbreaks, the World Health Organization (WHO) released a statement noting that “this serious threat is no longer a prediction for the future, it is happening right now in every region of the world and has the potential to affect anyone, of any age, in any country”. [1]

Antimicrobial Resistance (AMR) refers to different microorganisms such as bacteria, parasites, viruses and fungi which can acquire partial or full resistance to antimicrobial treatment. [2]

The risk linked to the development of antimicrobial resistance threatens both humans and animal health, and welfare. The misuse and overuse of antibiotics can cause the insurgence and spread of resistant microorganisms that could circulate in humans, animals, food, water and environment.

The OIE role

The [World Organisation for Animal Health](#) (OIE) [3] is in first line for the fight against the development of resistance to antimicrobial agents and against the risk of losing or decreasing the possibility of threatening human and animal diseases.

The OIE has developed a wide range of [international standards](#) on antimicrobial agents, in particular on their responsible and prudent use [4]. The OIE standards are regularly updated and reviewed to take into account the most recent scientific knowledge and research results.

The role of veterinarians and para veterinary professions is regarded as crucial by the OIE, in particular in their role of regulating and supervising the use of antimicrobials and in reducing the demand for antibiotics proposing alternative solutions to animal owners, such as improvement in animal husbandry practices, greater use of vaccines,

and the implementation of diagnostic protocols to better target treatments.

The OIE has been working for a long time on the AMR field. After the FAO/OIE/WHO workshops on non-human antimicrobial use and antimicrobial resistance held in 2003 ([on scientific assessment](#)) [5] and in 2004 ([on management options](#)) [6], the OIE developed a [List of Antimicrobial Agents of Veterinary Importance](#) (updated in 2013 and 2014) [7], in parallel with the WHO list for human medicine [8].

In March 2013, the OIE organised the [First Global Conference on the Responsible and Prudent use of Antimicrobial Agents for Animals](#) (Paris, 13-15 March 2013) [9], where was presented an overview on the current situation regarding antimicrobial use and where were discussed possible ways of promoting the prudent and responsible use of antimicrobial agents in animals. Consequently, in 2015 the 180 OIE Member Countries adopted Resolution No 26 [10], ‘Combating Antimicrobial Resistance and Promoting the Prudent Use of Antimicrobial Agents in Animals’ where was recommended that the OIE continue to develop and update standards and guidelines related to antimicrobial resistance and the prudent use of antimicrobial agents including updating regularly the OIE List of Antimicrobial Agents of Veterinary Importance.

In the last trimester of 2015, the OIE launched an annual collection of data on the use of antimicrobial agents in animals, in OIE Member Countries. More than 70% (130 out of 180) Countries provided information on use of antimicrobial agents in animals. These results were presented in the [OIE Annual Report on the Use of Antimicrobial Agents in Animals](#) [11]. The information provided in this report represents a first step to better understanding the global use of antimicrobial agents in animals. A number of Countries (89 out of the 130 (68%)) were able to submit to the OIE quantitative information on the use of antimicrobial agents in animals. However, among these Countries, low- and middle-income countries have just started the process to collect this kind of information. Furthermore, 96 out of 130 (74%) Countries indicated that they do not authorise antimicrobial agents for growth promotion in animals, demonstrating knowledge and management of the risks rising from the practice. However, several Countries could not provide a list of antimicrobial agents authorised for growth promotion, as no legislation existed regarding this topic in their country.

The results of this data collection outline a first picture on the use of antimicrobial agents, putting in evidence great differences in the use of antimicrobials, worldwide and by region, and the need of OIE Member Countries to be supported to implement a responsible and prudent use of antimicrobial agents for animals.

In 2016, during the 84th General Session in May 2016, the commitment to combat antimicrobial resistance was confirmed through the adoption of Resolution No 36 [12]. ‘Combating Antimicrobial Resistance through a One Health Approach: Actions and OIE Strategy’. The ‘One Health’ approach is considered essential to preserving antimicrobial efficacy and to minimizing risks associated to AMR in both humans and animals.

Tripartite collaboration

The OIE activities on AMR have been conducted in collaboration with WHO and with FAO. The OIE-FAO-WHO collaboration reflects the ‘One Health’ nature of the AMR issue. In 2015 the WHO issued a [Global Action Plan](#) [13], with the support of FAO and OIE, where the challenge of AMR is addressed through a tripartite collaboration under the ‘One Health’ approach. Possible solutions have to be searched and will be found only through a multi-sectorial approach including human health and animal health, agriculture and environment.

Following the adoption of the Global Action Plan a [very important meeting on AMR](#) was organized at the 71st Session of the United Nations General Assembly in New York, on 21 September 2016 [14]. The OIE General Director was among the other leaders of the world reunited to adopt a political declaration aimed at combating the global threat posed by AMR. The three General Directors of the tripartite partnership addressed the General Assembly to support this declaration.

The OIE Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials

In November 2016 the OIE launched its [Strategy on AMR and the Prudent Use of Antimicrobials](#) [15]. The Strategy describes the important contribution of Veterinary Services to the WHO Global Action Plan and represents a key contribution to the success of this 'One Health' challenge. The structure of the OIE Strategy, published in November 2016, supports the objectives established in the WHO Global Action Plan, and reflects the mandate of the OIE as described in its Basic Texts through four main objectives:

- 1) **improve awareness and understanding among Member Countries:** through the development of communication and advocacy materials; encouragement of veterinarians professional culture; organizing workshops, conferences and symposia; expanding the OIE reference materials; continuing to align and coordinate OIE-WHO and FAO activities;
- 2) **strengthen knowledge through surveillance and research:** supporting the development of monitoring and surveillance systems; building and maintaining a database for collecting data on the use of antimicrobial agents in food-producing and companion animals; improving the OIE World Animal Health Information System (WAHIS) to allow analysis on the data collected; guide and support research into alternative to antibiotics.
- 3) **support good governance and capacity building of Veterinary Services:** providing assistance in development and implementation of national action plans and policies; provide tools and guidance; ensure Veterinary Capacity to implement OIE standards; support development and modernisation of the legislation governing manufacture, marketing authorisation, importation, distribution and use of veterinary products; training of OIE Focal Points for Veterinary Products, and ensuring training of veterinarians and veterinary para-professionals.
- 4) **encourage implementation of international standards:** strengthen multilateral support for Member Countries in implementing the OIE international standards; encourage the adoption of the recommendations in the OIE List of Antimicrobials of Veterinary Importance; increase the science based update of the OIR standards; further develop with WHO and FAO a sustainable framework including human health, animal health, agriculture and the food chain.

References

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13. [OIE Annual report on the use of antimicrobial agents in animals](#)
14. Resolutions of the 84th OIE General Session, [Resolution No.36](#), 2016
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16. [One-day high-level meeting at the United Nations Headquarters in New York on “Antimicrobial Resistance”](#), 21 September 2016

17. [The OIE Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials](#).

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