

Preface

Antimicrobial resistance in animal and public health

The World Organisation for Animal Health (OIE) works at the animal–human–ecosystems interface and fully endorses the ‘One Health’ concept.

The ‘One Health’ concept is particularly applicable to antimicrobial resistance.

As humans and animals share the same bacteria and 60% of dangerous human pathogens are of animal origin, the clear priority is to strengthen and improve public and animal health systems and to ensure cooperation between them.

Many of the same antimicrobials are used to control bacterial infections in both humans and animals. The rapid increase in the number of antibiotic-resistant bacteria has, in some cases, led to infections in humans or animals that are extremely difficult to treat. This problem is all the more acute since very few new antimicrobials are currently entering the market.

It is also crucial to preserve antimicrobial efficacy in order to ensure that animal production keeps pace with growing global demand for high-quality protein.

Human and veterinary medicine therefore share responsibility for preserving the therapeutic arsenal and controlling antimicrobial resistance. Accordingly, the OIE has been conducting joint activities with other international organisations involved in this issue (Food and Agriculture Organization of the United Nations [FAO], World Health Organization [WHO] and Codex Alimentarius Commission).

As part of its mandate, the OIE has been concerned with this issue since the late 1990s and has adopted and published in its *Terrestrial Animal Health Code* a set of international standards on the prudent use of antimicrobials and on monitoring antimicrobial use and resistance.

Given the amazing ability of living things to adapt to their environment, only a comprehensive approach involving all stakeholders is likely to succeed.

The OIE considers good governance in the field of veterinary drugs in each of its Member Countries to be a prerequisite for implementing any measure to control antimicrobial resistance. Good governance must be underpinned by an appropriate legislative framework and there must be sufficient human and financial resources to ensure that it is correctly implemented. Similarly, it would be unrealistic to apply drastic precautionary measures in a few countries if the rest fail to act, thus allowing resistant pathogens to develop and, in this age of globalisation, to spread across our entire planet.

The OIE has therefore undertaken a variety of initiatives to build the capacity of Veterinary Services by means of its Tool for the Evaluation of Performance of Veterinary Services (OIE PVS Tool), programmes for modernising veterinary legislation and support for VICH (International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products), as well as by organising training courses

for 178 national focal points for veterinary products with particular emphasis on antimicrobial resistance.

The OIE is continuing to work in this priority area and it will hold a global conference on the use of antimicrobials in animals in Paris in 2013 in order to promote their responsible and prudent use.

This issue of the OIE *Scientific and Technical Review* will acquaint readers with the very latest scientific data in the field of antimicrobial resistance and the more general articles will give them a broader understanding of this complex issue.

Many experts gave their valuable time in order to contribute to this issue of the *Review*. I wish to thank each and every one of them for their sterling efforts, without which this publication could never have come to fruition.

My deep gratitude goes to Professor Jacques Acar and to Doctor Gérard Moulin, who kindly agreed to undertake the editorial coordination of this issue of the *Review*.

Bernard Vallat
Director General

