Overview of OIE Activities to Combat Antimicrobial Resistance

Workshop on Development of Surveillance Framework for Antimicrobial Resistance in Food Animals and Environment

August 3–4, 2017
India Habitat Center, New Delhi, India
Agenda

- OIE and it’s 6th Strategic Plan 2016-2020
- OIE International Standards, Guidelines
- Monitoring the use of antimicrobials in animals
- OIE Strategy on AMR and the Prudent Use of Antimicrobials
- Ongoing activities and next steps
- Communication and advocacy
6TH STRATEGIC PLAN 2016-2020

We work to protect the health and welfare of animals globally, leading to economic prosperity as well as social and environmental well-being of populations.

Reinforcing trust through TRANSPARENCY and communication

- Spreading scientific and technical knowledge by:
  - Providing technical Veterinary expertise
  - Collecting and disseminating disease data notified by Member Countries
  - Improve governance to strengthen science and expert roles
  - Share our expert data analysis through WAHIS*
  - Modernise our external communication tools

- we will

Supporting and strengthening VETERINARY SERVICES at the front lines of public health

- Addressing human-animal health emergencies with partners
- Enhancing global governance of animal health systems
- Improving capacities of Veterinary Services in Member Countries
- Adapt our capacity-building programmes to fit local contexts

- we will

Improving animal health and welfare by appropriate RISK MANAGEMENT

- Developing science-based guidelines and standards to address:
  - Antimicrobials use and alternatives
  - Global disease control and eradication
  - Climate change and biodiversity
  - Biothreat reduction
  - Incorporate social, economic and environmental sciences
  - Further implement the One Health concept
  - Enhance countries’ official disease status recognition
  - Take into account new technologies

- we are

Excellence

- SCIENCE
  - quality
  - objectivity
  - new technologies
  - knowledge transfer
  - timeliness

Engagement

- Expert groups
- Reference Centres
- Specialist Commissions
- Next generation scientists
- diversity and selection

Management

- roles and responsibilities
- regional adaptations
- financial resources
- partnerships

*OIE Programme to improve the performance of Veterinary Services
OIE and its 6th Strategic Plan 2016-2020

New global strategies

Antimicrobial resistance

Global disease control

Animal welfare
OIE standards and guidelines

Preserving the efficacy of antimicrobials

- Market authorisation, manufacture, importation
- Distribution, restriction of free access
- Prescription and administration
- Monitoring of quantities used in animals, antibiotic resistance surveillance
- Oversight by Veterinary Statutory Bodies

OIE intergovernmental standards

- Controlling antimicrobial resistance
- Veterinary legislation
- Quality of Veterinary Services

OIE List of antimicrobial agents of veterinary importance

Aquatic Animal Health Code
Terrestrial Animal Health Code
Manual of Diagnostic Tests and Vaccines for Terrestrial Animals

World Organisation for Animal Health · Protecting animals, Preserving our future | 5
Terrestrial Animal Health Code

- Ch.6.7. Harmonisation of national AMR surveillance and monitoring programmes
- Ch.6.8. Monitoring of the quantities and usage patterns of antimicrobial agents used in food-producing animals
- Ch.6.9. Responsible and prudent use of antimicrobial agents in veterinary medicine
- Ch.6.10. Risk analysis for AMR arising from the use of antimicrobial agents in animals
OIE Standards and Guidelines on AMR

Terrestrial Animal Health Code

Ch.6.7. Harmonisation of national AMR surveillance and monitoring programmes

This chapter provides criteria for the:

- 1) development of national antimicrobial resistance surveillance and monitoring programmes,
- 2) harmonisation of existing national antimicrobial resistance surveillance and monitoring programmes,

in food producing animals and in products of animal origin intended for human consumption.

Revised text of Ch.6.7. is proposed for Members’ comments.

- A number of amendments are included in response to the comments of Member Countries, including a proposal for animal bacterial pathogens for inclusion in monitoring programmes.
**Terrestrial Animal Health Code**

- **Ch.6.8. Monitoring of the quantities and usage patterns of antimicrobial agents used in food-producing animals**

  - For the purpose of this chapter, *therapeutic use* of antimicrobial agents means the administration of antimicrobial agents to animals for treating and controlling infectious diseases.

  - In order to evaluate antimicrobial exposure in food-producing animals, *quantitative information should be collected* to monitor usage patterns by animal species, antimicrobial agents or class, type of use (therapeutic or non-therapeutic) and route of administration.
PROPOSED Definitions:

- **Preventive use**: Administration of an antimicrobial agent targeted to animals at risk for a specific infection(s) or in a specific situation where disease is likely to occur if the drug is not administered, with an appropriate dose and for a limited duration.

- **Therapeutic use**: Administration of an antimicrobial agent to animals to prevent, control or treat infection or disease. The Veterinary Medicinal Products (VMP) containing antimicrobial agents should only be used on the prescription of a veterinarian or other suitably trained person authorised to prescribe VMP containing antimicrobial agents in accordance with national legislation and under the supervision of a veterinarian.

- **Growth promotion**: Use of antimicrobial substances to increase the rate of weight gain and/or the efficiency of feed utilization in animals by other than purely nutritional means. The term does NOT apply to the use of antimicrobial agents for the specific purpose of treating, controlling, or preventing infectious diseases, even when an incidental growth response may be obtained.
  
  *(This definition is in line with the definition developed by Codex Alimentarius in CAC/RCP 61-2005)*
Terrestrial Animal Health Code

Chapter 6.9. Responsible and prudent use of antimicrobial agents in veterinary medicine

- “This document provides guidance for the responsible and prudent use of antimicrobial agents in veterinary medicine, with the aim of protecting both animal and human health as well as the environment”.

- It defines the respective responsibilities of the actors involved in the authorisation, production, control, importation, exportation, distribution and use of veterinary medicinal products (VMP) containing antimicrobial agents.

- Recommendations for each of the parties involved:
  - regulatory authority
  - veterinary pharmaceutical industry
  - wholesale and retail distributors
  - veterinarians
  - food-animal producers
  - animal feed manufacturers
**OIE Standards and Guidelines on AMR**

**Terrestrial Animal Health Code**

**Chapter 6.9. Responsible and prudent use of antimicrobial agents in veterinary medicine**

*(Responsibilities of the Competent Authorities)*

- **“Training** should focus on preserving the effectiveness of antimicrobial agents and include:
  - information on disease prevention, management and mitigation strategies;
  - the ability of antimicrobial agents to select for resistant microorganisms in animals and the relative importance of that resistance to public and animal health;
  - appropriate storage conditions, proper disposal of unused or expired VMP;
  - record keeping”

*(Responsibilities of Veterinarians)*

- carry out a proper clinical examination of the animal(s) and then:
  - administer or prescribe antimicrobial agents only when necessary and taking into consideration the OIE list of antimicrobial agents of veterinary importance;
  - make an appropriate choice of antimicrobial agents based on clinical experience and diagnostic laboratory information (pathogen isolation, identification and antibiogram) where possible
- …should a first-line antimicrobial treatment fail or should the disease recur, a second line treatment should be based on the results of diagnostic tests....
Chapter 6.9. Responsible and prudent use of antimicrobial agents in veterinary medicine

(Responsibilities of veterinary pharmaceutical industry)

- Supply all the information requested by the national Competent Authority;
- Only licensed and officially approved VMP should be sold and supplied …;

(Responsibilities of food animal producers)

- “Use VMP containing antimicrobial agents only on the prescription of a veterinarian or other suitably trained person authorised to prescribe VMP containing antimicrobial agents in accordance with the national legislation and under the supervision of a veterinarian”

(Responsibilities of animal feed manufacturers)

- “The supply of medicated feed containing antimicrobial agents to farmers keeping food-producing animals by animal feed manufacturers should be allowed only on the prescription”
List of Antimicrobial Agents of Veterinary Importance

- The OIE International Committee adopted at its 75th General Session in May 2007 (Resolution No. XXVIII).
- This List was further updated and adopted in May 2013 and May 2015 by the World Assembly of OIE. *It will be reviewed, in particular regarding ionophores (Resolution No38-85 GS-2017)*
- WHO and FAO will participate in the update of the list.

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<tr>
<th>VCIA</th>
<th>Veterinary <strong>Critically Important</strong> Antimicrobial Agents</th>
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<td>VHIA</td>
<td>Veterinary <strong>Highly Important</strong> Antimicrobial Agents</td>
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<tr>
<td>VIA</td>
<td>Veterinary <strong>Important</strong> Antimicrobial Agents</td>
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Standards and guideline on AMR

Recommendations

Among the Veterinary **Critically Important** Antimicrobial Agents, **some** are also of critical importance for human health (third and fourth generation *Cephalosporins*, and *Fluoroquinolones*):

- **Not to be used** as preventive treatment in feed or water or in absence of clinical signs.
- **Not to be used** as first line, unless justified and bacteriologic test.
- **Extra-label/off label use should be limited** and reserved for instances no alternatives are available.
Aquatic Animal Health Code

- Ch.6.2. Principles for responsible and prudent use of antimicrobial agents in aquatic animals

- Ch.6.3. Monitoring of the quantities and usage patterns of antimicrobial agents used in aquatic animals

- Ch.6.4. Development and harmonisation of national AMR surveillance and monitoring programmes for aquatic animals

- Ch.6.5. Risk analysis for AMR arising from the use of antimicrobial agents in aquatic animals
Part 3: General Guidelines:

3.1. Laboratory methodologies for bacterial antimicrobial susceptibility Testing

⇒ revision will be needed in light of veterinary pathogen resistance surveillance
Monitoring the use of antimicrobials in animals

OIE global database

1. A system where all can contribute
2. That safeguards information
3. That is pragmatic regarding the data collected
4. That will help to get comparable data and to measure trends
OIE global database on the use of antimicrobial agents in animals

Baseline information and 3 reporting options:

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<th>Reporting options</th>
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<td>Overall amount sold for/used in animals by antimicrobial class; with the possibility to separate by type of use</td>
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<tr>
<td>Overall amount sold for/used in animals by antimicrobial class; with the possibility to separate by type of use and species group</td>
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<tr>
<td>3</td>
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<td>Overall amount sold for/used in animals by antimicrobial class; with the possibility to separate by type of use, species group and route of administration</td>
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- 130 of 180 Members replied to the first phase
Second phase of data collection, submissions by OIE Region

3 non-Member Countries have submitted templates

N = 180
Surveillance of Antimicrobial Resistance

- Surveillance of resistance of animal pathogens is another important element to assess the level and the evolution of AMR in animals.

- Currently, very little information is available worldwide on pathogens relevant to animal diseases.

AMU data + Surveillance data + Population data

AMR RISK ANALYSIS AND PLANNING PURPOSES
Example: National AMR Surveillance / Monitoring (1/3)

**JVARM**
Japanese Veterinary Antimicrobial Resistance Monitoring System

1) Sales of Antimicrobial

2) Resistance in Zoonotic and Indicator Bacteria

3) Resistance in Animal Pathogens

Pharmaceutical Companies (Marketing Authorisation Holder)

Healthy animals

Diseased animals
Resistance rate in *E. coli* isolated from healthy animals
Example: National AMR Surveillance / Monitoring (3/3)

Integration of human and animal data

- JANIS: Japan Nosocomial Infection Surveillance
  - MIC data
  - Can calculate:
    - SIR judgment from MIC
    - Resistant rate
    - Multi-antimicrobial resistant rate

- JANIS Server

- JVARM MIC data
  - Since 1999

- Copy of JANIS Server
OIE strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials

**Context**
- 2015 Global Action Plan (GAP) on AMR and the Tripartite Partnership (WHO-FAO-OIE)
- OIE Resolutions on AMR in 2015 and 2016

**Strategy**
Consolidated work programme under 4 key objectives aligned with the GAP

- Improve awareness and understanding
- Strengthen knowledge through surveillance and research
- Support governance and capacity building
- Encourage implementation of international standards
Ongoing activities and next steps

- Capacity of Veterinary Services
- Prudent use by veterinarians and veterinary para-professionals
- Update the OIE List of Antimicrobial Agents of Veterinary Importance
- Legislation and regulatory systems for veterinary medicines
- Data on antimicrobial use
  - OIE National Focal Points on Veterinary Products-to be continued
  - Support & progress on reporting options to OIE database (collection & analysis)
  - Work on the “denominator” estimating animal biomass and future refinement
  - Enhancement of WAHIS
  - Further work on definitions of preventive and therapeutic use
  - Next OIE ad hoc Group on Antimicrobial Resistance, which will be held at the OIE Headquarters in Paris, from 29 to 31 August 2017.
**The Tripartite: FAO-OIE-WHO Collaboration**

- **Global leader for food and agriculture**
- **Global leader for animal health and welfare standards**
- **Global leader for human health**

**Joint priorities including on AMR**

- **WHO Global Action Plan:** developed in close collaboration with FAO & OIE
  - National Action Plan (NAP) development support tools
    - *Manual for developing NAP*
    - *Checklist to be used to assist with the development of NAP*
  - Communication tools
    - Joint media statements
    - Antibiotic Awareness Week
    - Common trainings and presentations
“Effective and accessible antibiotics are as vital for protecting animal health and welfare and good veterinary medicines as they are for human health”

Dr Monique Eloit, OIE Director General
UNGA 71st Session,
New York, September 2016
Reporting back to the 73rd Session of the United Nations – June 2019

- **Mapping activities** against the Global Action Plan for Tripartite, other UN agencies, and the wider stakeholder community (NGOs, private sector)
- **Monitoring framework** for Global Action Plan and National Action Plans
- **Stakeholder management** system to provide channels for dissemination of information and coordination of activities
- **Effective advocacy** to retain awareness of AMR at the highest international and national political levels
A Codex physical working group (pWG) meeting was held in London, United Kingdom, in December 2016 to undertake tasks assigned to it at the 39th session of the Codex Alimentarius Commission.

The pWG reviewed and revised the following project documents:

- Proposal for new work on the revision of the Code of Practice to Minimise and contain Antimicrobial Resistance (CAC/RCP 61 - 2005); and
- Terms of Reference for the Provision of Scientific Advice on Antimicrobial Resistance.

The revised project documents were recently adopted at the 40th session of the Codex Alimentarius Commission.

An electronic working group will be formed in August 2017 to prepare the proposed draft texts for comments and consideration by the Ad hoc Codex Intergovernmental Task Force on Antimicrobial Resistance prior to its physical meeting to be held in Korea from 27 Nov to 1 December 2017.
Since 2010, six annual regional workshops have been organized by the tripartite to update and advance zoonoses control and prevention as well as AMR management.

- 6th Workshop was held in Sapporo, Japan, in October 2015.
- 7th Workshop will be held in Manila, Philippines, in September 2017.
Activities of OIE RRAP

- OIE Regional Seminar for National Focal Points on Veterinary Products
  - 4th cycle: Mar. 2016, Tokyo, Japan
  - 5th cycle: Mar. 2018 (To be confirmed)

- OIE Regional Short-term Training on AMR in collaboration with National Veterinary Assay Laboratory, Japan
  - 1st (Basic course): Nov. 2016
    Participants: Cambodia, Chinese Taipei, Hong Kong SAR, China, Mongolia, Myanmar, Philippines, Thailand, Vietnam
  - 2nd (Pre-advanced course): Nov. 2017
  - 3rd (Advance course): Nov. 2017
Communication and advocacy
http://www.oie.int/en/for-the-media/amr/

Fact sheet, infographics, videos and scientific publications
Thank you for your attention

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