Antimicrobial resistance: the challenges for animal health
1. Context
2. The OIE and the tripartite collaboration on antimicrobial resistance
3. OIE actions to tackle AMR
4. Challenges for animal health
Globalisation

Population growth

Demand for food

Demand for animal protein, increase by more than 50%

Unprecedented movement of people and commodities

Focus on developing countries

+1 billion people by 2050
Why is antimicrobial resistance (AMR) a global concern?

Antimicrobial agents are essential to ensure human health, animal health and welfare, and food security.

- AMR challenges control of infectious diseases
- AMR increases care costs
- AMR compromises health security and damages economies
- There is a lack of coherent global approaches to prevention and containment
AMR – shared responsibility

- Antimicrobial resistance (AMR) is not a new phenomenon, but concerns are growing.
- Antimicrobial agents are essential to ensure human health, animal health and welfare, and food security.
- The human, animal and plant sectors have a shared responsibility to prevent or minimise the development of antimicrobial resistance by both human and non-human pathogens.
The solution

- A holistic and coordinated management across the animal, food and human sectors in different ecosystems and geographic locations
- Improved intersectoral collaboration where regulations of medicines are managed by different entities
Jointly addressing AMR
*(HLTM meeting report)*
Needs: actions at national level

- Governance
- Legislation
- Good quality information
- Capacity building
- Risk assessment
- Close cooperation
OIE Actions to tackle AMR

1. Collaboration
2. Standards
3. Capacity building
4. Information collection & sharing
5. Supporting Member Countries

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Supporting Member Countries
Tripartite collaboration on antimicrobial resistance

- Technical Focal Points nominated
- Identified common areas for cooperation
- Use common messages
- Mutual participation in relevant *ad hoc* Groups, meetings and trainings
- Common country & subregional approaches and projects
- Invited at meetings of the WHO *Strategic and Technical Advisory Group on Antimicrobial Resistance* and to contribute to the AMR Global Action Plan
WHO: AMR Global Action Plan (GAP)

STAG 1
Call for GAP

WHA 2014: Resolution
- Discuss with key stakeholders
- Specific areas

WHA 2015

STAG
- Review draft GAP
- Advice on next steps

Refine GAP, Roles & responsibilities
- Regional consultations
- Specific areas

Outline GAP & development process

Call from MS

May 2013
May 2014
May 2015

Slide kindly provided by WHO
OIEs approach to tackle AMR

- Antimicrobial resistance
  - Antimicrobials are a precious necessity for animal health and welfare and public health

Current status:
  - No control of antimicrobial agent circulation in more than 100 countries
  - Falsified product make up a majority of circulating antimicrobials
  - Challenge in many countries: unrestricted access to antimicrobials by farmers without veterinary oversight
OIE Actions to tackle AMR

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Update on OIE Standards and Guidelines

WHO and FAO participate in the ad hoc Group on AMR

Terrestrial and Aquatic Code “Chapters” cover

- Harmonisation of national antimicrobial resistance surveillance programmes
- Monitoring of the quantities and usage patterns
- Responsible and prudent use
- Risk assessment (linked the use of antimicrobial agents in animals)
- OIE List of Antimicrobial Agents of Veterinary Importance

*Updated and adopted between 2012 and 2014*

http://www.oie.int/en/international-standard-setting/terrestrial-code/access-online/
A similar approach was taken for aquatic animals:

- **Adopted in May 2011** by OIE Member Countries for inclusion in the Aquatic Code.
  
  - Chapter 6.2. Introduction to the recommendations for controlling antimicrobial resistance and
  
  - Chapter 6.3. Principles for responsible and prudent use of antimicrobial agents in aquatic animals

http://www.oie.int/en/international-standard-setting/aquatic-code/
Adopted in May 2012

- Chapter 6.4: Monitoring of the quantities and usage patterns of antimicrobial agents used in aquatic animals
- Chapter 6.5: Development and harmonisation of national antimicrobial resistance surveillance and monitoring programmes for aquatic animals
Part 3: General Guidelines:

3.1. Laboratory methodologies for bacterial antimicrobial susceptibility testing
Update on OIE Standards and Guidelines

- **OIE List of Antimicrobial Agents of Veterinary Importance:**
  updated in 2014
to take into account concerns for human health
(WHO and FAO participated in this task)

- **Recommendation**

  Any use of antimicrobial agents in animals
  should be in accordance with OIE standards
  on responsible and prudent use

http://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/OIE_list_antimicrobials.pdf
For a number of Antimicrobial Agents there are no or few alternatives for the treatment of diseases in target species.

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 bacteriological test
- Extra label/off label limited and reserved for instances no alternatives are available.
OIE Actions to tackle AMR

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History of Focal Point Seminars:

Second cycle

- **Second cycle** for OIE National Focal Points for Veterinary Products
  - Africa (Senegal), Septembre 2011
  - Middle East and Africa (Morocco), Dec. 2011
  - Africa (Kenya), Mars 2012
  - Asia (Thailand), July 2012
  - Americas (Brazil), October 2012
  - Europe (Austria), November 2012
Second cycle

- Provided to participants the technical basis for
  - inspection system, monitoring plan, control of the
distribution of veterinary products and the tracking
  and identification of counterfeit products

- Informed about VICH*

- Strengthened awareness of Focal Points on the importance
  of prudent and responsible use of veterinary drugs, in
  particular with regard to residues and antimicrobial
  resistance.

* International cooperation on harmonisation of technical requirements for registration of veterinary products
History of Focal Point Seminars

Third Cycle

- Algiers (Algeria), 1 - 3 October 2013
- Maputo, Mozambique, 3 - 5 December 2013
- Ottawa, Canada, 25 - 27 August 2014
- Ohrid, Macedonia, 18 - 20 November 2014
- Tokyo, Japan, 3-5 December 2014
Third Cycle

- Veterinary products in general and good governance
- Antimicrobial resistance
- Collection of quantitative data on the use of antimicrobial agents and the establishment of an OIE database
- Anti-parasitic drugs
OIE GLOBAL CONFERENCE ON THE RESPONSIBLE AND PRUDENT USE OF ANTIMICROBIAL AGENTS FOR ANIMALS

International Solidarity to Fight against Antimicrobial Resistance

Paris (France), 13–15 March 2013
Recommendations

To the OIE Member Countries

3. To develop and set up an official harmonised national system for collecting data on the monitoring of antimicrobial resistance in relevant animal pathogens and quantities of antimicrobial agents used in food producing animals at the national level based on the OIE standards.

To the OIE

7. To collect harmonised quantitative data on the use of antimicrobial agents in animals with the view to establish a global database.
OIE Actions to tackle AMR

1. Collaboration
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One Health
OIE global database on the use of antimicrobial agents in animals

Based on chapter 6.8., information collected through a questionnaire and Focal Point training:

• to enhance Member Countries engagement in the initiative to prevent antimicrobial resistance
• to improve awareness and provide an overview of antimicrobial use in animals
• to measure trends in the use of antimicrobial agents in animals over time
• to assist risk managers to evaluate the effectiveness of efforts and mitigation strategies
OIE global database on the use of antimicrobial agents in animals

Collection of baseline information and different reporting options

- Antimicrobial sales/use in food producing animals
  - Collection of quantitative information
    - Usage patterns by animal species
    - Antimicrobial agent or class
    - Administration route
    - Type of use (therapeutic vs non-therapeutic)
OIE Actions to tackle AMR

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Challenges for animal health

To control antimicrobial use in animals we need:

- Support for developing countries to implement good governance aspects including veterinary legislation
- Quality veterinary services, including the private sector and laboratories
- Measures for controls on importation, production, distribution and use
- Involvement of all stakeholders
- More risk assessment and banning of non-priority practices in animals
- More public-private partnerships and research
Challenges for animal health

- Awareness raising at all levels
- Animal health and welfare must be sustained
- Food security and food safety must be ensured
- Veterinary supervision for animal use is a priority
- No universal optimal solution for the delivery of antimicrobials at farm level worldwide,
- The well qualified veterinarian is the solution
Conclusion

1. Collaboration
2. Standards
3. Capacity building
4. Information collection & sharing
5. Supporting Member Countries

One Health
Information is available at the OIE website

ANTIMICROBIAL RESISTANCE (AMR):

Thank you for your attention
Chapter 6.7. Harmonisation of national antimicrobial resistance surveillance and monitoring programmes

- Criteria for development of national antimicrobial resistance surveillance and monitoring programmes
- Harmonisation of existing programmes in food producing animals and in products for human consumption
- Surveillance and monitoring programmes of the prevalence of resistance in bacteria in animals, food and environment is a critical part of animal health and food safety strategy
- Monitoring of bacteria from products of animal origin intended for human consumption collected at different steps of the food chain are also considered.