FAO-OIE-WHO Tripartite Positions and Actions on Antimicrobial Resistance (AMR)

Patrick Otto, FAO, Rome
On behalf of the FAO/OIE/WHO Tripartite Technical Focal Points
Context

Global demand for food security

- +1 billion people by 2050
- Demand for animal protein, notably milk and eggs will increase by more than 50%
- Focus on developing / transition countries

Source: US Bureau of the Census
World production

Meat

Milk

Eggs

Source: FAOSTAT
Distribution of livestock production systems

Source: The World Bank
Drivers of consumption and future trends

World demand for livestock food products since 1990:
- Milk +30%
- Meat +60%
- Eggs + 80%
  +70% by 2050

- Population growth: +30% since 1990
  +30% or 9 billion people by 2050

- Income growth: +1.5%/year since 1980, +5 to 7%/ year in Asia
  +2%/year by 2050

- Urbanization: 20% in 1900, 40% in 1990, >50% in 2010
  70% of urban people in 2050
Globalisation

- Unprecedented movements of commodities and people are used by pathogens to colonise the planet
- There is no where in the world from which we are remote and no one from whom we are disconnected
- Resistant bacteria travel with humans, animals and commodities and ignore boarders and oceans
Need for common actions

- A stronger collaboration between WHO, FAO and OIE
- Sharing responsibilities and coordinating global activities to address health risks at the animal-human-ecosystems interfaces
- Three ‘flagship’ topics:
  - Zoonotic influenza
  - Rabies
  - Antimicrobial resistance (AMR)
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

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 implementation of the FAO-OIE-WHO Tripartite Agreement/Vision

High Level Technical Meeting, Mexico October 2011

Jointly addressing AMR
*(HLTM meeting report)*

(http://www.oie.int/fileadmin/Home/eng/Media_Center/docs/pdf/HLTM_exec_summary.pdf)
Inappropriate use of antimicrobial agents in human and veterinary medicine has led to AMR, resulting in prolonged illness and increased costs.
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
Needs (1)

- **International standards** (to harmonise protocols and methodologies) to monitor AMR and antimicrobial usage
- **Surveillance data** on AMR and antimicrobial usage to support AMR risk analysis
- **Technical capacity** (for surveillance of AMR and antimicrobial usage and AMR risk analysis)
Needs (2)

- **Coordinated research** on effectiveness of policies to achieve AMR risk reduction
- **R&D new drugs**
- **Legislation** on access to quality drugs and restricted use
- **Good governance** of all sectors related to authorisation and use of antimicrobials (lab expertise, international standards and legislation development and implementation, surveillance and monitoring)
Steps for action at country level (1)

- Formal **mechanisms of collaboration** between ministries/authorities involved (health, agriculture, livestock, food, environment)
- **Concordance** between veterinary and human medicines regulation, approval, prescription control and monitoring of use
- Development and adoption of **international standards and protocols** to facilitate information sharing and harmonisation in surveillance of AMR and antimicrobial use in humans and animals
- **Surveillance programmes** to monitor current and emerging AMR patterns involving animal and human health sectors
Steps for action at country level (2)

- Institutional and technical capacities for AMR and antimicrobial usage monitoring and surveillance; and AMR risk analysis
- Multidisciplinary task forces of Authorities involved to act on surveillance data
- Joint evaluation programmes on the effectiveness of management actions to reduce the prevalence of AMR in human and animal sectors
- Common messages and outreach
Conclusions: actions at national level

- Governance
- Legislation
- Good quality information
- Capacity building
- Risk assessment
- Close cooperation
Ongoing and future global collaboration
Tripartite Annual Executive & Coordination Meetings

Paris, 1 - 2 February 2012, OIE Headquarters:

Tripartite Strategy: AMR one of the priority topics

- R13- Headquarters to **nominate focal points for AMR** in the three organisations to define and implement the immediate next steps for collaboration.
- R14- **Scale up AMR** to address all sectors. Focus should include legislation and capacity building.
- R15- That the **Veterinarian, or Para-Professional under Veterinary authority, be considered as key players for using antibiotics** in order to better control their use.
- R16- Existing HQ Tripartite Focal Points on AMR **work on an Action plan** addressing the following items: legislation, capacity building, needs of resources for poor countries, misuse and illegal use.
Tripartite Annual Executive & Coordination Meetings

Rome, 6 - 7 February 2013, FAO Headquarters

Antimicrobial Resistance

Conclusions:

- Prudent and responsible use of antimicrobial agents in both humans and animals is considered a public good

- The three organizations have officially nominated technical focal points for antimicrobial resistance who will facilitate the implementation of immediate next steps for collaboration

- Recommendations R14, R15 and R16 from the Tripartite meeting on 1-2 February 2012 are still a priority
Tripartite Annual Executive & Coordination Meetings

Rome, 6 - 7 February 2013, FAO Headquarters

Recommendations:
- Continue to work together on AMR to protect human and animal health
- **Support the joint AMR capacity building initiatives** as agreed by the Tripartite
- **Speak with one voice and take collective action** through a coordinated approach with shared responsibilities to tackle antimicrobial resistance worldwide

Action:
- **AMR focal points to prepare an action plan** for the Tripartite in view of the development of a joint Tripartite global strategy on the containment of AMR
Tripartite technical focal points for antimicrobial resistance

- Technical Focal Points met three times
- Identified common areas for cooperation
- Development of a tripartite work plan is ongoing
- Common messages are identified
- Mutual participation in relevant ad hoc Groups, meetings and trainings
Antimicrobial resistance
- Antimicrobials are a precious necessity for animal health and welfare and public health
- Prudent and responsible use in animals: OIE Standards should be applied
Responsible and prudent use

Objective

- Prevent or reduce the transfer of resistant bacteria within animal populations, their environment and from animals to humans
- Contribute to maintaining the efficacy and usefulness of antimicrobial agents used in animal and human medicine
- Protect consumer health by ensuring the safety of food of animal origin with respect to residues of antimicrobial agents
- Develop antimicrobial resistance surveillance and monitoring programmes through sampling
- Refer to the OIE List of critically important antimicrobials in veterinary medicine
- Follow up of national flow and use
Responsible and prudent use

Responsibilities

▪ Of the Competent Authorities

• Ensuring regulation of production, import and distribution

• Granting marketing authorisation => specify terms of authorisation (criteria for safety, quality, efficacy, etc.) and provide information to vets

• Combat manufacture, advertisement, trade, distribution and use of unlicensed/counterfeit products

• Quality control of products

• Control over prescription, supply, administration

• Ensure that the environmental impact of antimicrobial use is restricted to a minimum.
Responsible and prudent use

Responsibilities

- **Of distributors**
  - For antimicrobial agents only by prescription and delivery from a veterinarian
  - Detailed records

- **Of veterinarians**
  - Promotion of good farming practices to minimise the need for antimicrobial agents
  - Prescription and delivery only to animals under their care; when necessary; precise indications (including withdrawal period)
  - Appropriate choice (=> target pathogens) of antimicrobial agents for efficacy of treatment
  - Detailed records
Responsible and prudent use

Responsibilities

- **Of food animal producers**
  - Implement health & welfare programmes with involvement of a vet.
  - Use antimicrobial agents only by prescription and delivery by a well qualified vet.
  - Comply with withdrawal periods

- **Of Veterinary Statutory Bodies**
  - To be established by law to define and control professional conduct and veterinary ethics of veterinarians.
Conclusion

We need:

- More cooperation between international organisations
- International solidarity to support developing countries particularly in good governance aspects including Veterinary Service legislation
- More risk assessment and banning of non-priority practices in animals
- More research and public-private partnerships
- Support to veterinary services, including the organisation and control of the private sector, and laboratories
- More awareness raising at all levels
Conclusion: Antimicrobial use in animals

Problems related to AMR are linked to antimicrobial use in any environment, including human and non-human usages. Antimicrobial resistance is not a recent phenomenon, but it is critical to take action now to keep antimicrobial agents effective and useful to combat disease.

- Animal health and welfare must be sustained
- Food security and food safety must be ensured
- Practices at risk such as the use of antimicrobials for animal growth promotion should be carefully evaluated
- No universal optimal solution for the delivery of antimicrobials at farm level worldwide, The well qualified veterinarian is the key actor
- International solidarity is crucial in a globalised world
Thank you for your attention

Patrick.otto@fao.org
e.erlacher-vindel@oie.int
aidarakanea@who.int