



Presidenza Italiana
del Consiglio
dell'Unione Europea



**“Fighting AntiMicrobial Resistance:
smart weapons against smart microorganism”**

One Health and Global Security Agenda as support for the struggle against AMR

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“...we must come together to prevent, and detect, and fight every kind of biological danger—whether it’s a pandemic like H1N1, or a terrorist threat, or a treatable disease.”

**Remarks by President Obama in Address to the
United Nations General Assembly
September 21, 2009**



"È necessaria una collaborazione ma anche una forte leadership e un forum permanente per identificare e attuare le priorità. Mai un summit GHSA è stato così opportuno e tempestivo e il nostro Paese è particolarmente lieto della partecipazione attiva a questo incontro"

**Minister Hon. Beatrice Lorenzin,
Global Health Security Agenda World Summit
Washington, September 26, 2014**



One health in Italy

Italy has adopted the One health approach in its National Health Service:

- Medical prevention services and veterinary services form the Prevention Departement of the Local Health Units.
- Both are under the Ministry of Health remit.



Today's Global Health Security Risks:

- Emergence and spread of new microbes;
- Globalization of travel and trade;
- **Rise of drug resistance;**
- Potential for accidental release, theft or illicit use.

Prevent

1. Prevent the emergence and spread of antimicrobial drug resistance (AMR) in microbial pathogens, including drug-resistant bacteria **(IT contributor)**
2. Preventing the emergence and spread of emerging zoonotic disease
3. Promoting national biosafety and biosecurity systems and establishing biorisk management training to sustain best practices
4. Effective protection through immunization against measles and other epidemic-prone diseases **(IT leader)**

Detect

1. Developing a nation wide laboratory system and deploying diagnostic approaches (**IT contributor**)
2. Strengthening national and international surveillance systems to detect emerging public health threats (**IT contributor**)
3. Developing and linking real-time biosurveillance networks
4. Strengthen capabilities for rapid reporting to the WHO during emergencies
5. Training and deploying effective biosurveillance workforce

Respond

1. Enhancing emergency operations centres capacity
2. Building linkages between health and law enforcement for the purposes of attribution of bioweapon attacks
3. Strengthen international infrastructure, policies and operational frameworks for the deployment of public health and medical personnel internationally in response to emergencies.

GHSA: the Italian commitment



Prevent 1» *Prevent the emergence and spread of antimicrobial drug resistance (AMR) in microorganisms, including drug-resistant bacteria:*

Ministry of Health (DGSAF) → harmonized multiannual monitoring plan (years 2014-2020) on the development of resistance in primary productions and meat at retail. This plan includes sampling activities aimed at assessing resistance trends of zoonotic and commensal bacteria, according to the following annual program:

Years 2014, 2016, 2018 and 2020 for laying hens , broilers and fresh broiler meat, fattening turkeys;

Years 2015, 2017 and 2019 for pigs, bovines aged under 1 year, pork meat and beef.

GHSA: the Italian commitment

Detect 1» Developing Nationwide Laboratory Systems

Ministry of Health (DGSAF) → IZS laboratory network

Detect 2» Strengthening national and international surveillance systems to detect emerging public health threats

Ministry of Health (DGSAF) → surveillance activity for 3 major syndromes –to be discussed with other countries – indicating potential health emergencies, carried out according international standards (brucellosis, TBC e salmonellosis are noteworthy models).

Epidemiological surveillance of West Nile Fever is already in place.

OFFICIAL CONTROLS IN VETERINARY SECTOR PLAY A ROLE IN THE RISK REDUCTION OF TRANSMISSION OF RESISTANT BACTERIA FROM ANIMALS TO HUMANS:

1. **LIVE ANIMALS** → epidemio-surveillance plans, farm biosecurity, animal welfare, drugs surveillance programs, national control plan for animal feeding
2. **FOOD OF ANIMAL ORIGIN** → National Residues Control plan (PNR)
3. **ANIMAL BY-PRODUCTS** → surveillance on use and disposal of animal by-products (including sewage)

Antibiotic Ban in veterinary medicine

Antibiotic ban as feed additives in animal feeding in Europe:

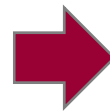
- Avoparcin → 1997
- Spiramycin, tylosin, virginiamycin,
Zn-bacitracin, carbadox e olaquinox → 1999

Total Ban

→ 1 January 2006, Reg. EC 1831/2003

AMR : Activities of the Ministry of Health

adoption of recommendation to enforce the prudent and responsible use of antimicrobial in veterinary medicine



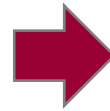
Manual of Biosecurity and rational use of antibiotics in livestock farms; check list for controls on distribution and use of VMP

initiative to assess and solve problems deriving from mass treatment and illegal use of antibiotics.



Penalization of off-label use (beyond the cascade principle) (art. 108, par. 2) and prohibition to have stocks of antimicrobial products for oral use in farm for mass treatment (D.Lgs. 143/2007)

harmonization of antibiotics contents of VMP – Summary of Product Characteristics (SPC)



Change of information leaflet, after specific reference (e.g. use of fluoroquinolones and 3 e 4 generation cephalosporin only following antibiogram results and prohibition of use of 3 e 4 generation cephalosporin in poultry)

AMR: Biosecurity Manual

PRINCIPI PER UN USO RESPONSABILE DEGLI ANTIBIOTICI NEGLI ANIMALI DA REDDITO

1. Diagnosi corretta
2. Farmacocinetica nota
3. Stato di immunocompetenza noto
4. Scelta dell'antibiotico appropriato
5. Corretta posologia
6. Verifica dei risultati

- Avoid antibiotic when an other therapy is available;
- First choice for antibiotics not used in human medicine;
- Chosen according to the sensitivity of the target bacterial species on the basis of the results antibiogram;
- Administered according to the doses and way recommended in the information leaflet;

The local use is, generally speaking, to be preferred to the systemic;

The treatment of chronic cases should be avoided;

Any failure of clinical response to a therapeutic treatment is to be reported immediately to the Competent Authority

AMR RESISTANCE: ongoing activities

National Plan (voluntary) for the responsible use of veterinary medicinal products and the control of AMR in rabbits

In discussion a national plan (voluntary) for the responsible use of veterinary medicinal products and the control of AMR in poultry

TRACEABILITY – Traceability of veterinary medicinal products through the extension of the Central Database for human medicines – testing phase.

ELECTRONIC PRESCRIPTION - The establishment of a computer-based system is included in the “Agenda per la Semplificazione 2015-2017” and the Senate Act n. 1324, so called “DDL Lorenzin” .

Monitoring of sales and consumption will be mandatory under the new regulation.

AMR RESISTANCE: next steps

Multidisciplinary Action Plan of the Ministry of health:

Academic training for veterinarians and pharmacists on antimicrobial-resistance (seminar in Universities)

Data analysis of antibiotic consumption in the veterinary sector and categorization of livestock farms based on consumption

Cross -check of antibiotic consumption data and the results of the National Residues Plan

Development of validated methods in the IZS labs performing antibiograms. Research programs for the development of validated rapid diagnostic tools.

Task Force on antimicrobial-resistance in the Directorate general of Animal health and Veterinary medicines

Communication on the correct use of antibiotics for pet owners and vet practitioners





Rudolf Virchow: «...between animal and human medicine
there are no dividing lines — nor should there be»

One Health



GRAZIE PER L'ATTENZIONE