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PNCAR

NATIONAL ACTION PLAN ON ANTIMICROBIAL RESISTANCE

2017
2020



Ministero della Salute

With the Agreement of November 2, 2017, between the Government, the Regions and the Autonomous Provinces of Trento and Bolzano, Italy adopted its first **National Action Plan on Antimicrobial Resistance (PNCAR) 2017-2020**.

The **PNCAR** represents the tool for implementing the Italian strategy.

In order to face the increasing resistance and spread of antibiotic-resistant microorganisms, the PNCAR provides for national coordination, specific objectives and actions through the synergy between national, regional and local levels, the different key stakeholders involved and a governance, in which the roles of the institutions, both in the human and the veterinary sector, are clearly defined. The preparation and the adoption of an operational document defining the responsibilities of the different institutions is expected within 6 months of the adoption of the PNCAR. Since the Plan aspires to have a real and positive impact on human health, the measures defined include the identification and implementation of the priorities to be adopted at the various levels so as to change the current increasing trend of antibiotic resistance and healthcare-associated infections.

With the Decree of the Director General for Health Prevention of November 3, 2017, a multi-sectoral coordination table for the implementation and monitoring of the PNCAR was established. Its mandate is to promote the achievement of the objectives set by the Plan. The skills and expertise of the various sectors both at national and regional level meet on this table.

PNCAR

2

GENERAL OBJECTIVES

reducing the frequency
of infections caused
by antibiotic-resistant
microorganisms

reducing the frequency of
hospital and community
healthcare-associated
infections

6

AREAS OF INTEREST

Antibiotic resistance
surveillance and
prevention

appropriate use
and surveillance of
antimicrobial consumption

surveillance, prevention
and control of healthcare-
associated infections

training of healthcare staff

information and education
of the population

research and innovation

67

CENTRAL ACTIONS

59

REGIONAL AND LOCAL ACTIONS

ITALIAN STRATEGY *in the human sector*

Reducing the consumption of systemic antibiotics by more than 10% at local level

Reducing the consumption of fluoroquinolones by more than 10% at local level

Reducing the prevalence of methicillin-resistant *S. aureus* in blood isolates by more than 10%

Reducing the consumption of systemic antibiotics by more than 5% in hospitals

Reducing the consumption of fluoroquinolones by more than 10% in hospitals

Reducing the prevalence of Carbapenemase-producing Enterobacteriaceae (CPE) in blood isolates by more than 10%

STRONG POINTS

of the strategy in the human sector

Control of healthcare-associated infections (HAIs)

In this framework, the Plan intends to take into account the good practices for the control of HAIs developed and implemented to date in some Italian areas, promoting their identification, dissemination and adoption at national level in order to achieve the harmonization of measures to ensure citizens' health and safety. Here are some examples:

- action aimed at promoting hand hygiene in hospitals;
- national programme for the prevention and control of infections caused by multidrug-resistant Enterobacteriaceae;
- development of programmes for other priority themes, such as venous catheter-related bacteremia, surgical site infections and catheter-associated urinary tract infections.

Appropriate use of antibiotics in humans

Since inappropriate use and abuse of antibiotics even in humans are some of the main causes of AMR and its increase, it is fundamental to intervene in this area, too, starting from the national harmonization of the strategies for the appropriate use of antibiotics, integrating them with those for the control of healthcare-associated infections at hospital, residential and community level, taking into account national and international reference guidelines.

Antimicrobial stewardship (AS) is a fundamental tool in the improvement process and it is necessary to implement AS programmes in all healthcare areas.

At the same time, the aim is to increase the knowledge and the level of awareness of the appropriate use of antibiotics in all healthcare areas and for all healthcare staff. Citizens' awareness of the importance of the responsible use of antibiotics should be promoted.



ITALIAN STRATEGY *in the veterinary sector*

**Reducing the consumption
of antibiotics by more than
30%**

**Reducing the consumption
of Critically Important
Antimicrobials by more
than 10%**

**Reducing colistin
consumption to a level of 5
mg/PCU**

**Reducing the consumption
of orally administered
antibiotics by more than
30%**

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STRONG POINTS

of the strategy in the veterinary sector

Complete digitization of veterinary medicinal products, including the electronic prescription

A totally computerized system allowing to “track” veterinary medicinal products and particularly antimicrobials, from their production to distribution and consumption of the single animal/group, through the veterinary prescription.

In addition to being an example of transparency and simplification, this system permits to improve official controls and assess their effectiveness.

Moreover, the acquisition of accurate data on the prescription and use of antimicrobials is an important element in the fight against AMR, as the real-time knowledge of what is used, in which breeding (species/category and production system), by which route of administration and for what reason (treatment, control, prevention, use in exceptional cases) allows to promptly act to “contain” any “anomalies” deviating from

the principles of prudent use of antimicrobials, particularly those of critical importance for humans.

Integrated risk categorization system for livestock farms

Companies posing a risk for the development and spread of antimicrobial-resistant bacteria are identified based on collected data and obtained indicators on animal health (including biosecurity), animal welfare, antimicrobial consumption, lesions and diseases found during post-mortem inspection and resistance data. Also, the aspects that need to be improved to reduce the number of veterinary antimicrobial prescriptions are defined, while respecting animal health and welfare.



ACTION	TARGET	OBJECTIVES	
		SHORT TERM 2017-2018)	LONG TERM (2019-2020)
AMR SURVEILLANCE	Humans	All Italian regions under a centralized AMR surveillance system	To survey to target carbapenem R, new emerging clones and move from sentinel base to wide surveillance
	Animals	To increase performance of EU AMR monitoring	To survey new bacteria clones of medical importance
HEALTHCARE-ASSOCIATED INFECTIONS (HAIS) SURVEILLANCE	Humans	To develop the HAIs surveillance plan	To apply the HAIs surveillance plan in all Italian regions
AM CONSUMPTION	Humans	To monitor AM consumption (prescribed) at national level	To develop regional plans to correlate AMC to appropriate therapy
	Animals	To make e-prescription compulsory for food producing animals and pets. To increase holdings classified according to risk assessment towards AMR and AMC (vet official control)	To move from data on AM sold to data on AM prescribed and consumed
RESIDUALS VET DRUGS	Animals	As already in place with the national monitoring plan on residuals and contaminants	As already in place with the national monitoring plan on residuals and contaminants
PREVENTION: HEALTHCARE-ASSOCIATED INFECTIONS (HAIS)	Humans	Harmonizing strategies for HAIs prevention and control, integrating them with those for the appropriate use of antibiotics	Improving measures for HAIs prevention and control and constantly adapting them to the scientific evidence
PREVENTION : ZOOSES	Animals	To develop programs of good breeding practices and strategies for prevention of animal infectious	To reduce risk of animal infectious diseases
AM PRUDENT AND PROPER USE	Humans	Harmonizing strategies for the appropriate use of antibiotics, integrating them with those for HAIs control. Making antimicrobial stewardship programs specific and sustainable. Improving knowledge and awareness in healthcare staff and citizens.	Improving and constantly updating national guidelines on the appropriate use of antibiotics. Promoting actions to reduce the phenomenon of using leftover antibiotics at home
AM PRUDENT AND PROPER USE	Animals	To release national guidelines for prudent use of AM in food producing and pet animals	
COMMUNICATION	Humans & Animals	To make every as an European Antibiotics Awareness' Day	Stakeholders targeted education: from citizen to public health operators
EDUCATION		One-health education for public health operators	To educate and empower on best practices on AM proper and prudent usage
RESEARCH AND INNOVATION		AMR priority listed in national research funded projects	To promote transfer of research results at NHS level