Plans to voluntarily reduce the consumption of antibiotics in Animal Health

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Why was an action plan necessary in Spain?

3,000 annual deaths, overcoming traffic accidents

one of the EU countries with the highest consumption of antibiotics in people and animals

1 out of 2 in Spain believe that antibiotics cure flu and 6% self-medicate with them

the use of antibiotics considered critical for human health in animals is still common
Antibiotic consumption: Spain vs. UE 2016

Human (DHD)

35.8

24

Animal (mg/PCU)

362.4

124.6
Objective of the Plan:

Reduce the contribution of the use of antibiotics in human and veterinary medicine to bacterial resistance and its consequences on health.

Preserve in a sustainable way the existing therapeutic arsenal.

ONE HEALTH approach.
We are all part of the PRAN


All the Autonomous Communities

+70 scientific societies, collegiate organizations, universities and professional associations

+ 300 experts
1ª EDITION
2014-2018

2ª EDITION
2019-2021
ESVAC-ES Project: Harmonized data collection of SALES of veterinary antibiotics in 30 Member States of the U. E.

Collect sales of:
Marketing authorization holders, wholesalers, retailers, pharmacies and livestock associations.

The report is published annually (October) referring to consumption of two years before.

It is currently the only consumption surveillance system established in Spain (until January 2019)
EVOLUTION OF VETERINARY ANTIBIOTIC CONSUMPTION (mg/PCU)

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<tr>
<td>mg/PCU</td>
<td>335.8</td>
<td>302.4</td>
<td>317.1</td>
<td>418.8</td>
<td>402</td>
<td>362.4</td>
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14% decrease
SITUATION OF THE CONSUMPTION OF VETERINARY ANTIBIOTICS
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<td>3rd- and 4th-gen. cephalosporins</td>
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<td>Fluoroquinolones</td>
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<td>Polymyxins</td>
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mg/PCU

Spain
Situation of the Consumption of Veterinary Antibiotics

Year 2016

Cattle: 4%
Pigs: 75%
Poultry: 12%
Sheep & Goats: 4%
Fish: 0.4%
Horses: 0.1%
Rabbits: 5%
Cats & Dogs: 0.1%

Toneladas
SITUATION OF THE CONSUMPTION OF VETERINARY ANTIBIOTICS
YEAR 2016
PORCINE, PIGS, CATTLE

mg/PCU

3rd- and 4th-gen. cephalosporins
Fluoroquinolones
Macrolides
Other quinolones
Polymyxins

Poultry
Pigs
Cattle
PRAN in Animal Health: Plans to voluntarily reduce the consumption of antibiotics in Animal Health

MOST IMPORTANT SECTOR OF ANIMAL PRODUCTION IN SPAIN
GREAT CAPACITY OF IMPROVEMENT
INTEGRATION
In veterinary medicine, colistin was widely used, especially for controlling diarrhea in pigs after weaning.

In human medicine, treatment options are limited for patients infected with resistant bacterias such as carbapenem-resistant Enterobacteriaceae and Acinetobacter spp. Colistin is “old” antibiotic that have been reintroduced to human medicine to treat multi-resistant infections.

Emergence of the mcr-1 gene, which confers resistance of the enterobacteria to colistin. This mcr-1 gene, apart from China, has been isolated in more countries in Europe (Holland, France, United Kingdom, Denmark, Spain and Portugal) and also in the USA, which is showing its worldwide distribution.

On July 27, 2016, the EMA (European Medicines Agency) established a maximum use threshold of 5 mg / PCU, which must be reached by the Member States in a period of three years, 1mg / PCU being the ideal goal.
Spain, in the ESVAC sales report of 2014, presented the highest consumption of colistin, 37 mg / PCU and also the highest total consumption of veterinary antibiotics. In 2015 it dropped to 35 mg / PCU.

How much colistin do we consume?

COLISTIN SALES LEVEL IN 2014 IN COUNTRIES WITH THE SAME LEVEL OF SWINE PRODUCTION:

- Denmark: 0.5 mg / PCU
- Netherlands: 0.9 mg / PCU
- France: 6 mg / PCU
- Germany: 13 mg / PCU
- Spain: 37 mg / PCU

COLISTIN CONSUMPTION (mg/PCU): consumption of COLISTIN in Spain, based on ESVAC analysis about sales of veterinary antibiotics.
Taking into account all the antecedents, on September 15, 2016, representatives of the national associations of veterinarians and professionals of the swine production sector met in the headquarters of the AEMPS, with the objective of preparing an agreement to reduce the consumption of colistin.
Agreement for Voluntary Reduction of Colistin Consumption in Porcine Sector

- **members:** associations of veterinarians and professionals of the swine production sector

- Asociación de Veterinarios de Porcino de Aragón (A.V.P.A)
- Asociación de Veterinarios de Porcino de la Región de Murcia (AVEPOMUR)
- Asociación Gallega de Veterinarios de Porcino (AGAVEPOR)
- Asociación Nacional de Porcinocultura Científica (ANAPORC)
- Asociación Nacional de Productores de Ganado Porcino (ANPROGA)
- Asociación Nacional de Veterinarios de Porcino (ANAVEPOR)
- Asociación Nacional de veterinarios de Porcino Ibérico (ANVEPI)
- Associació Catalana de Fabricants de Pinsos (ASFAC)
- Associació de Veterinaris de Porci de Catalunya (AVPC)
- Asociación de Veterinarios de Porcino de Castilla y León (AVEPORCYL)
- Confederación Española de Fabricantes de Alimentos Compuestos Para Animales (CESFAC)
- Cooperativas Agroalimentarias.
The main objectives of the agreement are the following:

Reduce the consumption of colistin in pig production. The reduction will be established in sections, with the quantitative target of 5 mg / PCU in the maximum period of three years.

To control the alternative consumption of antibiotics, avoiding the increase in the consumption of neomycin and/or apramycin as a possible substitution to colistin.
55 companies adhere to the Agreement

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55 companies adhere to the Agreement
Agreement for Voluntary Reduction of Colistin Consumption in Porcine Sector: RESULTS.

55 companies adhere to the Agreement (80% pigs slaughtered)

- **REDUCTION OF 85.8%** IN THE CONSUMPTION OF COLISTINA BETWEEN 2015 AND THE BEGINNING OF 2018

- **REDUCTION OF 68%** IN THE CONSUMPTION OF NEOMICINA BETWEEN 2015 AND THE BEGINNING OF 2018

- **VERY LOW CONSUMPTION** OF APRAMYCIN
How do we achieve this?

- **Spread awareness** to the veterinarian and porcine sector about **antibiotics** that are **only used for treatment** and not for prophylactic use.

- **Improve:**
  - Feeding
  - Weaning management in pigs: ventilation, temperature, animal welfare (no overcrowding), homogeneous batch with appropriate numbers of animals.

- **Increase immunity:** food, vaccination of mothers and piglets.

- **Improve the biosecurity and hygiene of the farms**

How is this made possible?

Significant investment by the swine industry (Spain is the 3rd largest swine producer in the world)
Companies that voluntarily adhere to the Agreement sign a public declaration of compliance.

The Agreement involves a distinctive recognition for those companies who comply.
They provide consumption data at the farm level.
Implication in the prudent use of antibiotics
Example for other production sectors.
Use of alternatives and improvement of farm management, hygiene and biosecurity
Agreements for Voluntary Reduction of Antibiotics in BROILERS

In Broiler poultry farming, a **45% drop in the total consumption of antibiotics in 2020** has been set as the target.

**20 companies adhere to the Agreement** (75% broiler production)

![Graph showing Spain Antibiotic consumption in BROILERS]

- **Quinolonas**: - 68.71%
- **Amoxicilina**: - 60%
- **Colistina**: - 93%
- **Otros**: - 72.57%
Agreements for Voluntary Reduction of Antibiotics in BROILERS

- REDUCTION OF 71% IN THE CONSUMPTION ANTIBIOTICS BETWEEN 2015 AND FIRST SEMESTER OF 2018

20 companies adhere to the Agreement (75% broiler production)
Agreements for Voluntary Reduction of Antibiotics in RABBITS

Reduce the consumption of antibiotics **by 30% in the maximum period of two years.**

Within the first year of this period, it is established **not to prescribe the antibiotic Colistin in its oral form via medicated feed.**

**Establishment of specific guidelines for the prescription of AB:**

- The normal status of the maternities is "without medication".
- In "peridestete" (25 days around the weaning to technical criteria), because of the high incidence of **Mucoid Epizootic Enteropathy**, we can establish an early metaphylaxis with **maximum two antibiotics via feed**.
- The feed in the **last phase will never be medicated** (nor with authorized molecules with zero days of suppression).
- Be especially careful with the prescription of the antibiotic **Oxytetracycline**.
Agreements for Voluntary Reduction of Antibiotics in CATTLE

The main objective of the agreement is based on **eliminating completely the systematic use of premixes** with antibiotics in its composition.

**Limit the use of antibiotics in oral solution**, administered via water and milk, to defined and justified clinical needs.

Increase the use of **rapid diagnostic tests to identify pathogens** and increase the use of **sensitivity tests** to determine the most appropriate treatment.

**Reduce the use of category 2 antibiotics** to very defined and justified clinical needs.

**Involve the whole cattle sector**
They provide consumption data at the farm level.

Implication in the prudent use of antibiotics

Example for other production sectors.

Use of alternatives and improvement of farm management, hygiene and biosecurity
The campaign affects:

- Duration of treatment and dosage
- Overtreatment
- Treatment in serious infections
- Local guides
- Antibiotic plan in clinical history
- Sequential therapy
- Antibiotic adjustment
- Re-evaluation of the treatment
Campaign PRAN - VETERINARY

Utiliza los antibióticos de forma prudente

Permite al profesional seleccionar el antibiótico, la dosis, vía de administración y la duración del tratamiento.

Receta siempre:
antibióticos de uso veterinario

Receta veterinaria

Tu decisión

 Médico Veterinario

Clinica Veterinaria

Tu más
Tu decide!
Campaign PRAN - VETERINARY
Campaign PRAN - VETERINARY
Conoce una de las mayores amenazas para la salud pública

El desarrollo de bacterias resistentes a los antibióticos pone en riesgo la salud humana y veterinaria, así como la actividad agrícola y ganadera.

Súmate al PRAN

Todo lo que debes saber sobre la resistencia a los antibióticos y el Plan Nacional en marcha para combatirla.

Profesionales

Toda la información sobre el PRAN dirigida a profesionales sanitarios en las áreas de salud humana y veterinaria.
¡Muchas gracias!

www.resistenciaantibioticos.es

@PRANgob

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