# Antimicrobial Resistance

## Why does it matter to me?

Federation of
Veterinarians of Europe

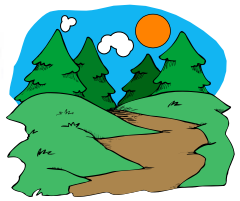
# One Health

The collaborative effort of multiple disciplines

- working locally, nationally and globally

– to attain optimal health for people, animals and the environment

[AVMA, ONE Health; a new professional Imperative, 2008]



•Translocation

•Encroachment
•Introduction
•"Spill over" &
•"Spill back"

•Human encroachment
•Ex situ contact
•Ecological manipulation
•Human behaviors

•Agricultural
•Extensive Production

•Global travel
•Urbanization
•Biomedical
•manipulation

•Food processing/distribution
•Technology and
•Industry

Wildlife

Domestic Animal

Human

•After Daszak P. et.al.
•Science 2000 287:443

# One Health

The collaborative effort of multiple disciplines

- working locally, nationally and globally

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[AVMA, ONE Health; a new professional Imperative, 2008]

# International Action

Sept 2009: ECDC/EMA – report

"**The bacterial challenge time to react**"

Suggests that each year 25 000 people die in the EU from an infection with (a selection of) multi-drug resistant bacteria;

Infections with selected multi-drug resistant bacteria in the EU would result in extra healthcare costs and productivity losses of at least 1.5 billion each year

# International Action

## Two motions for resolutions EU Parliament

9 May 2011 - Cie on agriculture and rural develop.

*Calls for data collection, research, monitoring and surveillance, prudent and responsible use, etc.*

20 Oct 2011- Cie on environment, public health and food safety:

*Calls for a further intensification of the fight against antimicrobial resistance, to reduce the use of antimicrobials, to phase out prophylactic use in livestock farming and better animal husbandry practices, etc.*

EUROPEAN PARLIAMENT

European Commission

Directorate-General for Health & Consumers

European Commission

**Communication from the Commission to the European Parliament and the Council**

**Action plan against the rising threats from Antimicrobial Resistance**

COM (2011) 748

# AMR a public health priority!

COM (2011) 748 – 17 Nov 2011

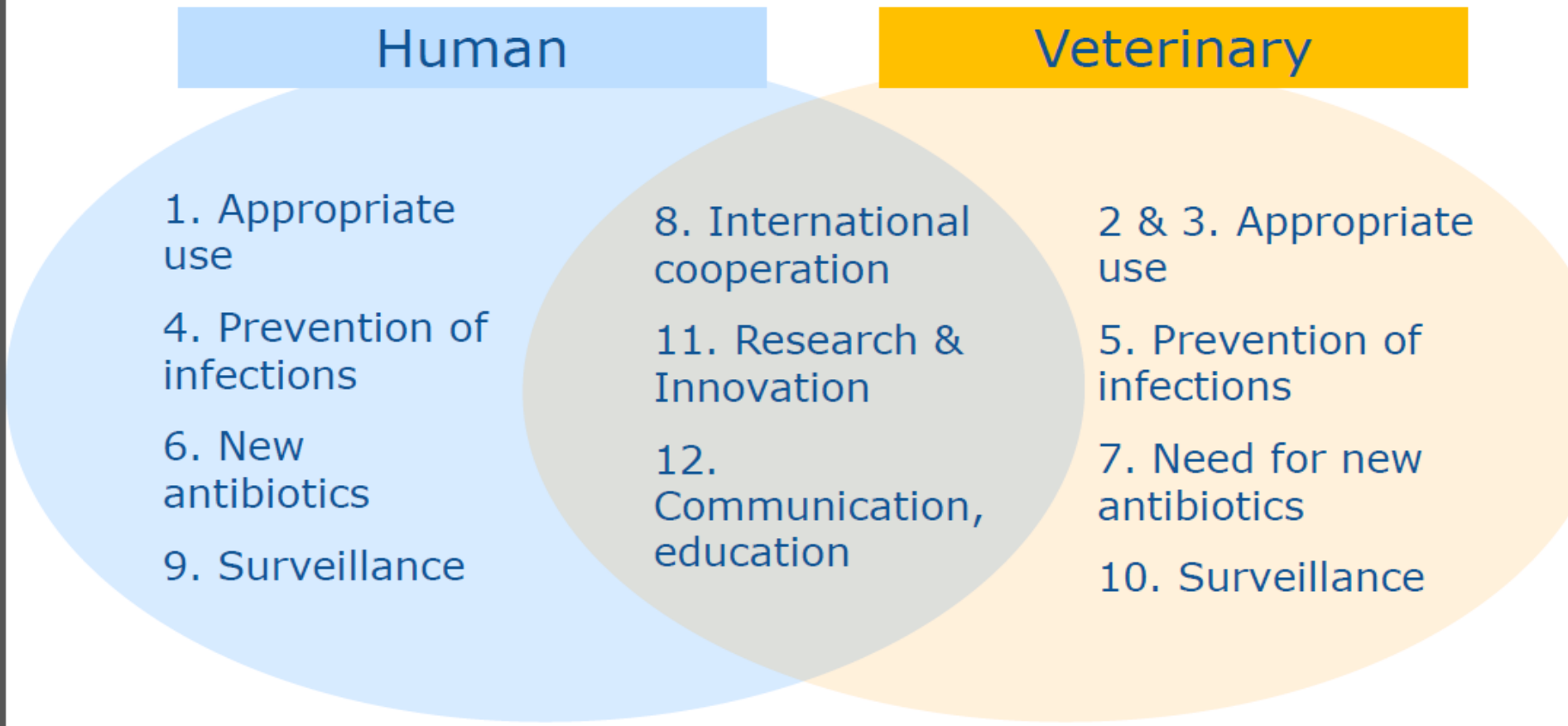
- 5 year action plan
- Holistic approach
- 7 key areas
- 12 concrete actions

# The 7 areas where action is needed

- **Appropriate use** of antimicrobials (humans and animals)
- **Prevention** microbial infections and their spread
- Development **new** effective **antimicrobials** or **alternatives** for treatment
- Improvement monitoring and **surveillance** (human and animal medicine)
- Cooperation with **international** partners to contain the risks of AMR
- Promotion **research** and innovation
- Improvement **communication**, education and training

Roadmap: http://ec.europa.eu/dgs/health_consumer/docs/road-map-amr_en.pdf

# The 12 actions

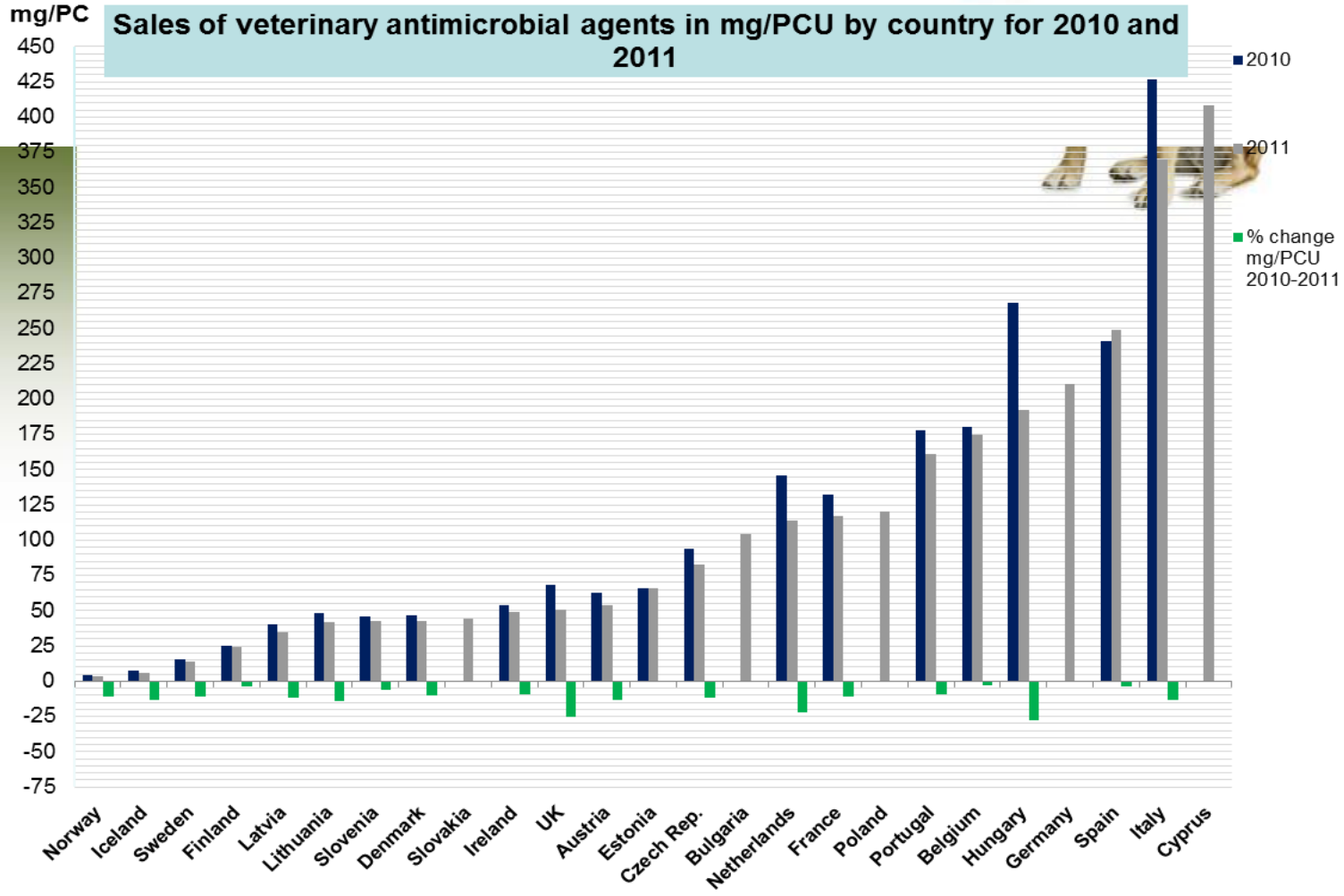


# ESVAC report on sales of antimicrobials in EU and EEA countries


- First report: data from 8 countries
- Second report: **2010** data from **19 countries**
- Third report: **2011** data from **25 countries**

✓ *In **19 of the 20 countries** that provided data to the ESVAC project in both 2010 and 2011, there has been a **decrease in sales in 2011, from 0.4% to 28%.***

http://www.ema.europa.eu/ema/index.jsp?curl=pages/news_and_events/news/2013/10/news_detail_001923.jsp&mid=WC0b01ac058004d5c1


Sales of veterinary antimicrobial agents in mg/PCU by country for 2010 and 2011
mg/PC
450
425
400
375
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
-25
-50
-75
2010
2011
% change mg/PCU 2010-2011
Norway
Iceland
Sweden
Finland
Latvia
Lithuania
Slovenia
Denmark
Slovakia
Ireland
UK
Austria
Estonia
Czech Rep.
Bulgaria
Netherlands
France
Poland
Portugal
Belgium
Hungary
Germany
Spain
Italy
Cyprus

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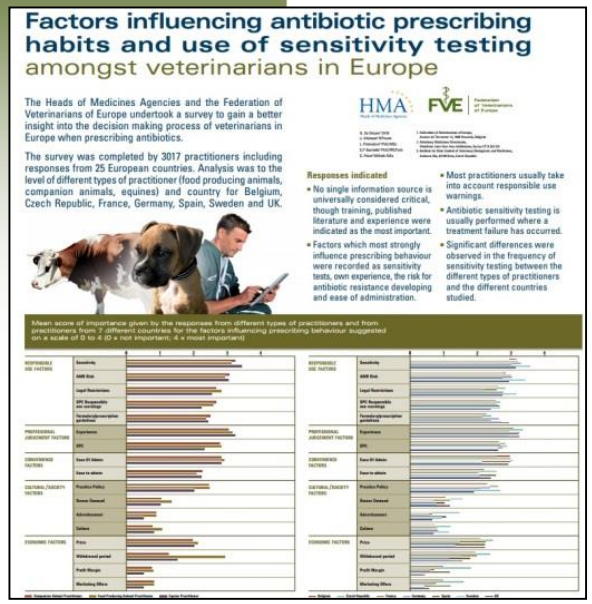
# Veterinary Medicines

## FVE- HMA survey on prescription habits of European Veterinarians




- **1st report**

  **Factors influencing antibiotic prescribing habits and use of sensitivity testing amongst veterinarians in Europe**

  ✓ Published in ***"Veterinary Record"***

- **2nd report**

  **European survey on antibiotics most commonly used to treat animals**

  ✓ Cover antibiotic & CIA use in cattle, pigs, horses, cats and dogs
  ✓ Sent for publication November 2013

# FVE is founding member of EPRUMA

EPRUMA

- **E**uropean **P**latform for the **R**esponsible **U**se of **M**edicines in **A**nimals
- **Best-practice framework for the use of antimicrobials in food-producing animals in the EU**
- **Partners: farmers, vets, industry, etc**
- http://www.epruma.eu/

# Veterinary Medicines

www.fve.org

## How to use antibiotics responsibly


- Prescribe only after examination and diagnosis
- Work with your clients
- Use diagnostic tests
- Use antimicrobials and CIAs correctly
- Avoid off-label use
- Report your prescription data to the authorities
- Report any adverse events, including lack of [illegible]lity



**Translated in all EU languages**

FVE | Federation of Veterinarians of Europe

FVE Federation of Veterinarians of Europe

# Veterinarians care for **animals and people**

## How to use antibiotics responsibly: Advice for the owners of horses and other equidae

Antibiotic resistance, or the ability of some bacteria to survive antibiotics, is a threat to both human and animal health. There is evidence to suggest that antibiotic resistance in bacteria found in horses can result in transfer of resistance to bacterial in humans, thus reducing the ability of doctors to treat bacteria infections in people. A faliure to use antibiotics responsibly is the main cause of resistance in man and animlas and we all have a duty to select and prescribe antibiotics appropriately so that these vital medicines remain effective.

### ► Antibiotics are not always the answer

Antibiotics are lifesaving medicines and it is essential that their efficacy is preserved now and in the future. They must be prescribed by a veterinarian after examination and diagnosis. Ask your vet for a complete examination and be confident in the veterinarian's expertise and decision on the appropriate treatment if antimicrobials are not prescribed. Fever is not always synonymous with infection and antibiotic treatment is not always needed.

### Keep your horse healthy and respect sanitary rules

Antibiotics cannot replace hygiene and good husbandry. Clean stables, good ventilation, care before and after exercise are fundamental in preserving your horse's health. Cleaning, lavages, bandages or local treatments are better than systemic antibiotics for healing wounds. Vaccines are effective in preventing some infectious diseases and reducing their severity. Discuss their possible use with your vet and ask for them to be used where and when appropriate. Prevention of disease is important, cost less than treatment and helps preserve the efficacy of medicines.

### Do not self-medicate your horse

Antibiotics are lifesaving drugs and must be prescribed by your veterinarian. Antibiotics do not prevent all infectious disease and treatments are individual. Antibiotic prophylaxis , the practice of administering antibiotics to healthy animals to prevent disease, is an example of irresponsible use and must not be used. Drugs may not act in the same way in different species and dosages or administration routes may vary. Using antimicrobials off label may be dangerous and calling for the latest and newest antimicrobials may be not be necessary when older and more conventional products will work just fine as well.

### Respect veterinary prescription

Follow thoroughly the instructions given by your veterinarian with regard to recommended dosing and duration of treatment. This will limit the risk for further complications, help ensure recovery and assist in reducing evolution of bacterial resistance. Respecting of the dose regimen is crucial for your horse's complete recovery and future sustainability of antimicrobials.

### ► Together with your veterinarian monitor the progress of recovery and efficacy of treatment

Monitoring your horse's health during treatment can help in adjusting drug choice and dosages, especially when waiting for sample results. Don't change treatment without veterinary advice. Evaluation of how well treatment has worked is essential as a follow up.

### Protect yourself though responsible use of antibiotics in your horse

Resistant bacteria, like MRSA, MRSP, ESBL, VRE, VISA and VRSA, can be transferred between horses and humans and may cause severe disease in both. Protect yourself when you are treating your horse by using gloves and/or mask when appriopriate and washing your hands often. In addition, the horse, unless declared as excluded from the food chain in the passport, must be considered as destined for human consumption. Always respect your veterinarian's instructions on antibiotic withdrawal times in order to ensure public health.

### GLOSSARY

**Antibiotics:** drugs that kill disease-causing agents such as bacteria. They are not effective against viruses.

**MRSA:** meticillin-resistant Staphylococcus aureus, highly-resistant bacteria that are typically found in human hospitals but can cause infection in animals.

**MRSP:** meticillin-resistant Staphylococcus pseudintermedius, a highly-resistant form of bacteria that typically cause infections in animals but on rare occasions have caused human infection.

**ESBL:** extended spectrum beta lactamase, enzyme produced by intestinal bacteria which inactivates antibiotics these bacteria are highly resistant.

**VRE:** Vancomycin-resistant Enterococcus, or vancomycin-resistant enterococci are bacterial strains of the genus Enterococcus that are resistant to the antibiotic vancomycin.

**VRSA:** Vancomycin-resistant Staphylococcus aureus refers to strains of Staphylococcus aureus that have become resistant to the glycopeptide antibiotic vancomycin. Three classes of vancomycin-resistant S. aureus have emerged that differ in vancomycin susceptibilities: vancomycin-intermediate S. aureus (VISA), heterogenous vancomycin-intermediate S. aureus (hVISA), and high-level vancomycin-resistant S. aureus (VRSA).

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FEEVA

This leaflet has been made by Federation of Veterinarians of Europe (FVE) in collaboration with the Federation of European Equine Veterinary Associations (FEEVA).

FVE Federation of Veterinarians of Europe

CPME COMITÉ PERMANENT DES MÉDECINS EUROPÉENS STANDING COMMITTEE OF EUROPEAN DOCTORS

COUNCIL OF EUROPEAN DENTISTS

# Health professionals care for animals and people

## Doctors, Dentists and Veterinarians advise "How to use antibiotics responsibly"

Antibiotics are vital to treating and preventing the spread of disease in animals and humans. However the risk that the bacteria causing a disease will develop a resistance to an antibiotic increases every time it is used. Once bacteria are resistant, the antibiotic is ineffective and can no longer treat the disease. Help us save lives and make sure that antibiotics stay effective now and in the future by following these tips:

### ► "Antibiotics are not always the answer"

Not every infectious disease can be treated with antibiotics (e.g. viral infections, colds and flu). Sometimes you can recover easily without using them (e.g. superficial cat bite wounds). To protect your own health and that of others, don't demand antibiotics when your doctor, dentist or veterinarian assures you that they are not needed.

### ► "Keep yourself, your family and your animal healthy"

Antibiotics should not be shared between people or between animals. Do not re-use tablets prescribed for an earlier illness. They can be inappropriate for the current condition, toxic, out of date, or contaminated. Certainly do not give human medicines to your animal. This could be dangerous.

### ► "Wash your hands often"

People's hands are the most common way germs are spread. Although some of these germs are harmless, others cause diseases, like stomach bugs, and transmit resistant bacteria such as MRSA/MRSP, even between animals and people. Washing your hands properly with soap and water is the single most important thing you can do to help reduce the spread of infections between you, other people and your animal. Pay special attention to wash your hands before preparing food or eating and after coughing, sneezing, blowing your nose or petting your animal.

### ► "Diagnostic tests might be needed"

In order for your doctor, dentist or veterinarian to know whether treatment with antibiotics is really necessary and if so, which antibiotic will work best, a laboratory test might be needed. This will enable your health professional to prescribe the right antibiotic for the right bacteria. Older antibiotics, such as Penicillin are often as effective as modern antibiotics.

### ► "Follow the dosage and instructions"

Make sure that you take or give your loved ones, including your animal, all the recommended doses of an antibiotic, as prescribed by your doctor, dentist or veterinarian; even if you or your animal seem to feel better after a few doses. Not only will this help cure the current infection, but it will also help to keep the bacteria from discovering new ways of being resistant to the antibiotic.

### ► "Talk to your doctor, dentist or veterinarian"

If you have worries or questions in relation to antibiotics, do not hesitate to discuss these with your health professional. He/she is your expert and best advisor. A good relationship with your doctor, dentist or veterinarian, is the pillar of healthy and happy people and animals.

- Antibiotic resistance is the condition when antibiotics no longer work against the (bacterial) infection that they previously worked well against.
- Infections caused by antibiotic resistant bacteria can be difficult to treat and last for a long time. In severe cases, no effective antibiotics can be found, so the disease cannot be treated, and may cause death.
- Antibiotic resistant bacteria that cause infections can spread to family and friends and infect our animals as well.
- Using antibiotics only when needed and taking them as directed can help to prevent the spread of resistant bacteria.
- One Health has been defined as "the collaborative effort of multiple disciplines — working locally, nationally, and globally — to attain optimal health for people, animals and the environment".

### GLOSSARY

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# Veterinarians and farmers care for animals and people

## "Responsible use of antibiotics in food-producing animals – How can this be ensured?"

Antibiotic resistance in animals – much like in their human counterparts – is becoming a greater challenge every day. Antibiotic resistance occurs when certain bacteria are able to "resist" and survive after they have been exposed to a specific antibiotic that would normally be expected to kill them or inhibit their growth.

### Antibiotics are not always the answer

Antibiotics are used in animals for the same reason as for people: they are vital to treat and control diseases. Protecting the health of animals helps to protect human health. But the risk that the organism causing the disease will develop resistance to them increases every time they are used. To make sure that the limited antibiotics available on the market stay effective now and in the future, they must be used with caution and only on veterinary prescription. Not every infectious disease requires antibiotic treatment (e.g. viral infections).

### Prevention is better than cure

One of the best things to do to prevent use of antibiotics is to ensure that animals are kept healthy, by guaranteeing good hygiene, proper housing and ventilation, feed with a high nutritional value, and, where available, use of vaccines as part of a good prevention and control strategy. Mixing animals with different health statuses should be avoided, but if necessary particular care should be taken when doing so. Remember always that "stress" is a killer. Antibiotics should never replace good husbandry, hygiene and management practices.

### Diagnostic tests might be needed

In order for your veterinarian to know whether treatment with antibiotics is really necessary and, if so, which antibiotic will work best, a laboratory test is often advisable and in some cases even essential (e.g. use of critically important antibiotics). Your veterinarian will then be able to prescribe the right antibiotic to fight the bacteria effectively. Older types of antibiotics, such as penicillins, can be as effective as the more modern drugs.

### New and critically important antibiotics must be strictly controlled

Farmer and veterinarians have to work together to prevent the development of resistance to antibiotics classed as "critically important" or to new antimicrobials for as long as possible. These antibiotics should only be prescribed and used by veterinarians as a very last resort, based on appropriate sensitivity test. Using antibiotics off label or via the cascade should be avoided wherever possible, and used always on the instructions of a veterinarian.

### Do not medicate your animal yourself

Do not use antibiotics for diseases other than those they are prescribed for or after they have passed their use-by-date. They can be inappropriate for the current condition, out of date, contraindicated or contaminated. Only veterinarians can prescribe antibiotics for animals, following an examination and clinical diagnosis. Never source antibiotics outside the legal channels.

### Follow the dosage and instructions

Make sure that your animals get all the recommended doses of an antibiotic as prescribed by your veterinarian, even if they get better. Not only will this help to clear up the current infection, but it will also help to keep the bacteria from discovering a new way of becoming resistant to the antibiotic. Always respect the withdrawal time in order to ensure that no residues remain before the meat or milk enters the food chain.

### Keep your treatments records in order

Improving antibiotic use requires the transparency and responsibility of all relevant operators, including farmers and veterinarians. Both farmers and veterinarians play an important role in keeping accurate records of treatments administered, and use these records for further assessments and possible adjustments to future treatments.

### Open dialogue between veterinarians and farmers (Farm Health Management Programme)

Safe food is produced by healthy animals. Health and welfare are greatly influenced by the way animals are kept and raised. At the level of primary production, the farmer has a key responsibility to guarantee that animals satisfy the requirements of animal health and welfare provisions. An open dialogue between farmers and veterinarians is vital to ensure healthy and productive animals. To support the farmer in such an activity, the development of a Farm Health Management Programme tailored to the specific needs of the farm may be considered, in order to guarantee good management of disease risk on farm and ensure expertise when risks and irregularities are detected on farm. If you have worries or questions in relation to antibiotic resistance, do not hesitate to discuss these with your veterinarian.

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**Antimicrobial resistance**
- News
- Publications
- Events
- Eurosurveillance articles
- Public health developments

**Basic facts**

**Antimicrobial resistance interactive database: EARS-Net**

**Antimicrobial consumption interactive database: ESAC-Net**

# Antimicrobial resistance

Antibiotics are one of the most important therapeutic discoveries in medical history. They have revolutionised the way we treat patients with bacterial infections and have contributed to reducing the mortality and morbidity from bacterial diseases. They are also an essential tool for modern medicine and common procedures such as transplantation, chemotherapy for cancer and even orthopaedic surgery could not be performed without the availability of potent antibiotics.

Unfortunately, antibiotics have been liable to misuse. They are often unnecessarily prescribed for viral infections, against which they have no effect. Similarly when diagnoses are not accurately made, more often than not, broad-spectrum antibiotics, i.e. antibiotics that kill a large proportion of various bacteria and not only the bacteria responsible for the disease, are prescribed because the causative micro-organism is not known. Read more

## IN FOCUS

### European Antibiotic Awareness Day: Rates of carbapenem-resistant infections continue to increase in Europe

On the occasion of the European Antibiotic Awareness Day, ECDC is releasing the EARS-Net annual report: the new EU-wide data on antibiotic resistance showing a marked increase of carbapenem-resistant infections. ECDC also publishes the results of a survey based on a self-assessment by national experts from 38 countries of carbapenems-resistant infections in Europe.

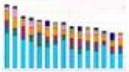
- EARS-Net report
- Summary of the latest data on antibiotic resistance in the European Union, 2013
- EuSCAPE report
- Summary of the results of a survey on carbapenem-resistant bacteria in Europe, 2013
- EAAD news release
- EAAD Infographics

## INTERACTIVE DATABASES

**Antimicrobial resistance interactive database (EARS-Net)**

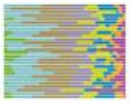
Occurrence and spread of antimicrobial resistance in Europe.

**Antimicrobial consumption interactive database (ESAC-Net)**



Antimicrobial consumption, in the community and the hospital sector in Europe.

**Point prevalence survey interactive database (HAI-Net PPS)**



Healthcare-associated infections and antimicrobial use in acute care hospitals.


RELATED HEALTH TOPICS

# WVA Conclusions from the Summit on Antimicrobials

Author: WVA

## Summit on Antimicrobials

11 October 2011, Cape Town, South Africa

These are the conclusions reached during the World Veterinary Association (WVA) Summit, an event organized with high-level support of both FAO, OIE and WHO during the World Veterinary Congress in Cape Town, South Africa.

The occurrence of antimicrobial resistance is a truly global "One Health issue", affecting the health and welfare of people and animals as well as the environment. Notwithstanding that there are big differences between countries in consumption and use practices, antimicrobial resistance exists everywhere and is a growing problem.

1. Both animals and humans require treatment with all available classes of antimicrobials. This has to be taken into consideration when considering and reaching agreement on the practical constraints which may be considered for the use of certain classes of antimicrobials.

2. Responsible use of antimicrobials is pivotal both for humans and animals. In the veterinary world and in the medical world the responsible use of antimicrobials must be promoted vigorously ay all levels in their chain of use. Raising awareness and education on the responsible use of these medicinal products in both the veterinary and human sectors is essential on a global scale.

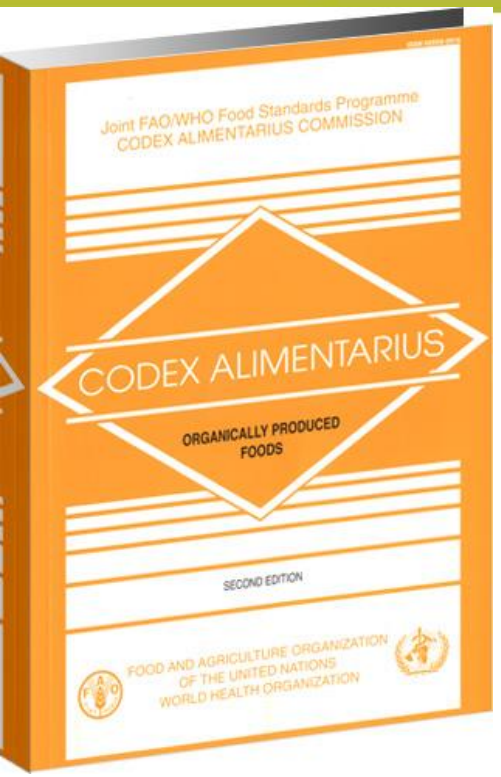
3. Antimicrobials should only be used on prescription prepared by persons who are qualified, licensed and accountable to their competent authority or statutory body. Prescriptions for veterinary use should be made by the veterinarian under whose care the animals exist. Clinical examination of the animals to be treated and accurate diagnosis must be done in accordance with standards for Good Veterinary Practice.

4. Uncontrolled/illegal distribution of antimicrobials must be prevented and violations severely punished Enforcement of rules should be effective, rigorous and dissuasive.

5. Prevention is better than cure. Antimicrobials must never be a default for poor animal husbandry. Good husbandry and management conditions, hygiene measures and where possible vaccination – should be assured to minimize use of these products wherever and whenever possible

6. Measures for controlling antimicrobial resistance should be risk based. Managing the risk of resistance must be firmly based on a scientific assessment of such a risk. Any approach for managing resistance based on a precautionary principle should be exceptional, and clear targets should be set and measures should be evaluated to ensure that the intended objectives are met. Further knowledge should be obtained through internationally coordinated collection of data on antimicrobial use and monitoring of resistance.

7. Prevention of antimicrobial resistance is a "public good". Everybody is affected and responsible in working to keep antimicrobials effective. This needs strong commitment, global education and enough resources.




FAO & WHO Codex Alimentarius Commission

Codex Committees on Residues of Veterinary Drugs in Foods (safety of residues)

Task Force on Antimicrobial Resistance (guidance on risk analysis on AMR)

# International Action

OIE terrestrial Code

Chapter 6.6. Introduction to the recommendations for controlling antimicrobial resistance

Chapter 6.7. Harmonisation of national antimicrobial resistance surveillance and monitoring programmes

Chapter 6.8. Monitoring of the quantities of antimicrobials used in animal husbandry

Chapter 6.9. Responsible and prudent use of antimicrobial agents in veterinary medicine

Chapter 6.10. Risk assessment for antimicrobial resistance arising from the use of antimicrobials in animals

For the media

- Press releases
- Editorials
- Press packs
- Animal diseases
- Key documents
- Multimedia

# World Veterinary Day 2012 : The veterinary profession tackles Antimicrobial Resistance

**Paris, 28 April 2012** – The selected theme for the 2012 edition of the World Veterinary Day is "antimicrobial resistance". Antimicrobials are essential tools for ensuring health and welfare of animals. However in recent years, development of full or partial resistance to antibiotics in humans and animals has endangered their efficacy and can threaten both animal and public health. Prudent use of antibiotics is a key precaution. Antibiotics are not ordinary products and must be used in animals only under the control of specialists such as well-trained veterinarians.

On the 28th of April 2012, veterinary associations, alone, or in cooperation with other selected veterinary bodies from all over the world will highlight the need for a prudent use of antimicrobials worldwide.

"The global demand for noble proteins and the need for safe production of animal products from healthy animals have never been so high. In this context, promoting the prudent use of antimicrobials in animals is a priority" said the Director General of the World Organisation for Animal Health (OIE), Dr Bernard Vallat.

"I call upon veterinarians all around the world to support this year's celebrations of the World Veterinary Day, as the veterinary profession is on the front line in protecting animal health and animal welfare and in preventing misuse of antimicrobials. If anybody without appropriate knowledge is allowed to distribute and use antibiotics for animals, this could lead to a disaster in the future", he added.

The OIE along with its partners advocates for a broad application of OIE standards and regulatory frameworks for antibiotics and veterinary products (including the control in registration, import, distribution and on-farm use of antimicrobials) and stresses that veterinarians have a crucial role to play worldwide to guarantee the responsible and prudent use of antimicrobials.

**About World Veterinary Day**

World Veterinary Day was instigated by the World Veterinary Association (WVA) in 2000 to be celebrated annually on the last Saturday of April. In 2008 the WVA and the World Organisation for Animal Health (OIE) agreed on the creation of the World Veterinary Day Award aimed at rewarding the most successful celebration of the veterinary profession by national veterinary associations, alone, or in cooperation with any other selected relevant body.

The 2012 Award will be delivered at the OIE 80th General Session to be held in Paris, France on 20-25 May 2012.

**More information**

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# Animal & Veterinary



## FDA Takes Significant Steps to Address Antimicrobial Resistance

*Agency implementing plan to ensure judicious use of antibiotics in food animals*

December 11, 2013

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**Trade Press Inquiries:** Siobhan DeLancey, 202-510-4177, siobhan.delancey@fda.hhs.gov
**Consumer and Industry Inquiries:** AskCVM@fda.hhs.gov

The U.S. Food and Drug Administration today is implementing a plan to help phase out the use of medically important antimicrobials in food animals for food production purposes, such as to enhance growth or improve feed efficiency. The plan would also phase in veterinary oversight of the remaining appropriate therapeutic uses of such drugs.

Certain antimicrobials have historically been used in the feed or drinking water of cattle, poultry, hogs, and other food animals for production purposes such as using less food to gain weight. Some of these antimicrobials are important drugs used to treat human infection, prompting concerns about the contribution of this practice to increasing the ability of bacteria and other microbes to resist the effects of a drug. Once antimicrobial resistance occurs, a drug may no longer be as effective in treating various illnesses or infections.

Because antimicrobial drug use in both humans and animals can contribute to the development of antimicrobial resistance, it is important to use these drugs only when medically necessary. The plan announced today focuses on those antimicrobial drugs that are considered medically important (i.e., are important for treating human infection) and which are approved for use in feed and water of food animals.

In a final guidance issued today, the FDA lays out a road map for animal pharmaceutical companies to voluntarily revise the FDA-approved use conditions on the labels of these products to remove production indications. The plan also calls for changing the current over-the-counter (OTC) status to bring the remaining appropriate therapeutic uses under veterinary oversight. Once a manufacturer voluntarily makes these changes, its medically important antimicrobial drugs can no longer be used for production purposes, and their use to treat, control, or prevent disease in animals will require veterinary oversight.

The FDA is asking animal pharmaceutical companies to notify the agency of their intent to sign on to the strategy within the next three months. These companies would then have a three-year transition process.

"Implementing this strategy is an important step forward in addressing antimicrobial resistance. The FDA is leveraging the cooperation of the pharmaceutical industry to voluntarily make these changes because we believe this approach is the fastest way to achieve our goal," said FDA Deputy Commissioner for Foods and Veterinary Medicine Michael Taylor. "Based on our outreach, we have every reason to believe that animal pharmaceutical companies will support us in this effort."

In order to help phase in veterinary oversight of those drugs covered by the guidance that are intended for medically appropriate uses in feed, the FDA also has issued a proposed rule to update the existing regulations relating to Veterinary Feed Directive (VFD) drugs. The use of VFD drugs requires specific authorization by a licensed veterinarian using a process outlined in the agency's VFD regulations. The VFD proposed rule is intended to update the existing VFD process and facilitate expanded veterinary oversight by clarifying and increasing the flexibility of the administrative requirements for the distribution and use of VFD drugs. Such updates to the VFD process will assist in the transition of OTC products to their new VFD status.

"This action promotes the judicious use of important antimicrobials to protect public health while ensuring that sick and at-risk animals receive the therapy they need," said

# .... and nationally

Department of Health

Department for Environment Food & Rural Affairs

# UK Five Year Antimicrobial Resistance Strategy 2013 to 2018

Northern Ireland Executive
www.northernireland.gov.uk

Llywodraeth Cymru
Welsh Government

The Scottish Government
Riaghaltas na h-Alba

# Strategic aims and approach

i. **Improve the knowledge and understanding of AMR through better information, intelligence, supporting data and developing more effective early warning systems to improve health security,**

ii. **Conserve and steward the effectiveness of existing treatments through improving infection prevention and control and development of resources to facilitate optimal use of antibiotics in both humans and animals,**

iii. **Stimulate the development of new antibiotics, diagnostics and novel therapies by promoting innovation and investment in the development of new drugs and ensuring that new therapeutics reach the market quickly.**

# Seven key areas

**1 improving infection prevention and control practices in human and animal health, both through enhanced dissemination and implementation of best practice and better use of data and diagnostics (supports strategic aims i and ii),**
**2 optimising prescribing practice through implementation of antimicrobial stewardship programmes that promote rational prescribing and better use of existing and new rapid diagnostics (supports strategic aims i and ii),**
**3 improving professional education, training and public engagement to improve clinical practice and promote wider understanding of the need for more sustainable use of antibiotics (supports strategic aims i and ii),**
**4 developing new drugs, treatments and diagnostics through better collaboration between research councils, academia, industry and others; and by encouraging greater public-private investment in the discovery and development of a sustainable supply of effective new antimicrobials, rapid diagnostics, and complementary tools for use in health, social care, and veterinary systems (supports strategic aims ii and iii),**
**5 better access to and use of surveillance data in human and animal sectors through new arrangements that facilitate greater consistency and standardisation of the data collected across the system and encourage improved data linkage (supports strategic aims i and ii),**
**6 better identification and prioritisation of AMR research needs to focus activity and inform our understanding of AMR. This may identify alternative treatments to new drugs as well as new or improved rapid or point-of-care diagnostic tests for humans and animals (supports strategic aims i, ii and iii),**
**7 strengthened international collaboration working with and through a wide range of governmental and non-governmental organisations, international regulatory bodies and others to influence opinion, galvanise support, and mobilise action to deliver the scale of change needed globally (supports strategic aims i, ii and iii).**

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# Measures to tackle antimicrobial resistance must be science based says BVA

15 November 2012

Political measures to reduce antimicrobial resistance in Europe and the UK are in danger of becoming kneejerk reactions that are not based on sound science, the British Veterinary Association (BVA) has warned ahead of European Antibiotic Awareness Day (18 November).

The BVA has told vets that they must use antimicrobials responsibly and be seen to use them responsibly or risk having restrictions imposed on their use by legislators using the precautionary principle.

To mark the Awareness Day BVA President Peter Jones delivered a webinar to over 300 veterinary surgeons titled "Resisting antimicrobials – are we acting responsibly?" hosted by The Webinar Vet and available to view at www.thewebinarvet.com/bva-webinars.

The BVA has consistently been at the forefront of promoting responsible use of these medicines, which are vital for both animal and human healthcare, through our responsible use poster, our membership of the RUMA (Responsible Use of Medicines

Related Links
European Antibiotic Awareness Day
"Resisting antimicrobi – are we acting responsibly?"
BVA poster on responsible use of antimicrobials

Related media
Mr Peter Harlech Jones
Low resolution

BVA
British Veterinary Association

# RESPONSIBLE USE OF ANTIMICROBIALS IN VETERINARY PRACTICE: THE 8-POINT PLAN

## 1 Work with clients to avoid need for antimicrobials

- Integrated disease control programmes
- Animal Health and Welfare Planning
- Isolate infected animals wherever possible

## 2 Avoid inappropriate use

- For example, for uncomplicated viral infections
- Restrict use to ill or at-risk animals
- Advise clients on correct administration of products and completion of course
- Avoid underdosing

## 3 Choose the right drug for the right bug

- Identify likely target organisms and predict their susceptibility
- Create practice-based protocols for common infections based on clinical judgement and up to date knowledge
- Know how antimicrobials work and their pharmacodynamic properties
- Use antimicrobials with a spectrum as narrow as possible

## 4 Monitor antimicrobial sensitivity

- While clinical diagnosis is often the initial basis for treatment, microbiological sensitivity must be determined whenever possible so that a change of treatment can be implemented if necessary

## 5 Minimise prophylactic use

- Use only when animals are at risk and evidence that usage reduces morbidity and/or mortality
- Regularly assess prophylactic use and develop written protocols for when prophylactic medication considered appropriate
- Monitor antimicrobial sensitivity trends

## 6 Minimise use perioperatively

- Use only when necessary and supported by strict aseptic techniques alongside written practice guidelines

## 7 Record and justify deviations from protocols

- Be able to justify your choice of antimicrobial and dose
- Keep accurate records of treatment and outcome to help evaluate therapeutic regimens

## 8 Report suspected treatment failure to the VMD

- This may be the first indication of resistance
- Report through the Suspected Adverse Reaction Surveillance Scheme (SARSS)

**SPECIAL NOTE**

**Fluoroquinolones and third-/fourth-generation cephalosporins:**

- Reserve these antimicrobials for clinical conditions that respond poorly to other classes of antimicrobials and where antibiotic sensitivity has been carried out.
- Do not administer systemically to groups or flocks of animals except in very specific situations and special attention should be given to the risk of antimicrobial resistance as part of the benefit/risk assessment.
- Avoid off label use whenever possible

FOR FURTHER GUIDANCE VISIT

**www.bva.co.uk**

**ANTIMICROBIALS ARE ESSENTIAL FOR THE TREATMENT AND PREVENTION OF INFECTIOUS AND ZOONOTIC DISEASES IN BOTH ANIMALS AND HUMANS**

**EVERY USE INCREASES THE RISK OF DEVELOPMENT OF MICROBIAL RESISTANCE**

**RESPONSIBLE USE OPTIMISES THERAPEUTIC EFFECTS WHILE MINIMISING RESISTANCE DEVELOPMENT**

**RESPONSIBLE USE — AS LITTLE AS POSSIBLE, AS MUCH AS NECESSARY**

.... and locally

## Locally?

- Response to UK plan led by Dept of Health
- We, as a profession, locally, need a plan!