We need you to take action to ensure antimicrobials are handled with care.

Policy makers

ANTIMICROBIALS ARE
ESSENTIAL MEDICINES
to control and treat infection in both humans and animals.

BUT THEY ARE LOSING
THEIR EFFICACY
at an increasing rate.

- The risk that disease-causing agents will develop resistance to an antimicrobial increases whenever antimicrobials are overused or used inappropriately.
- **A strong inter-sector collaboration is needed** to preserve the efficacy of antimicrobials by ensuring they are handled prudently when used in humans, animals or plants.
- The World Organisation for Animal Health, the OIE, has developed international Standards on antimicrobial resistance to help governments to support animal health with harmonised policies and rules.

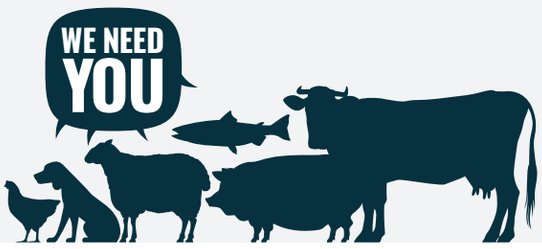
As Policy makers you have a role to play.

In addition to actions needed in the human health and plants sectors, we need you to ensure that the responsible and prudent use of antimicrobials in animals is practiced in your country.

The OIE has developed intergovernmental standards on antimicrobial resistance (AMR) to help maintain their efficacy. These texts cover the use of antimicrobials, development of surveillance programmes, monitoring quantities of antimicrobials used, and risk analysis of the emergence and spread of resistant bacteria in terrestrial and aquatic animals. Use them to ensure that your country can fight the AMR threat.

The reverse of this factsheet provides a summary of the main points for the responsible and prudent use of antimicrobials in animals. You can also consult the full version of these texts here: **www.oie-antimicrobial.com**

Well-structured veterinary services, a strong national legislation, awareness actions and **research** supporting these initiatives are crucial.



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WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

We need you to take action to ensure antimicrobials are handled with care.

Policy makers

Policy makers for the animal health sector have the key role of safeguarding animal health, human health, food supply and food safety at national level, supporting economic development.

Your role is ensuring the proper policies are in place from farm to fork – and beyond.

Policy makers should:

1. **Ensure that legislation** supports responsible and prudent use of antimicrobials and that Veterinary Services which play a key role in the fight against AMR have the **capacity to implement legislation.**

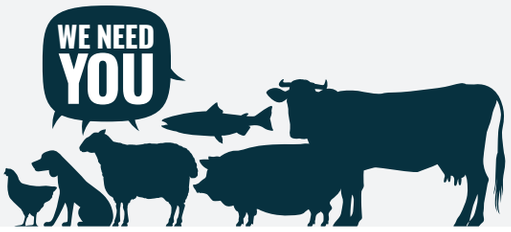
2. **Control the use of antimicrobials** under the supervision of well-trained veterinarians.
   - Ensure that antimicrobials can only be obtained with a **veterinary prescription,** based on scientific evidence.
   - **Support** and **fund minimum geographical coverage** by veterinarians for animal health surveillance.
   - Enable and support Veterinary Statutory Bodies which **oversee veterinary qualifications** as well as the ethical standards and professional excellence of veterinarians – including antimicrobial stewardship.

3. **Prevent the importation, manufacturing and circulation of non-quality products.** Illegal sales should be brought under control and perpetrators should be prosecuted.

4. **Support** and **finance research** into the development of methods for the prevention, diagnosis and treatment of diseases to reduce the dependence on antimicrobials, including rapid diagnostic tests and vaccines.

5. **Support the organisation of awareness campaigns** on the responsible and prudent use of antimicrobials in animals among stakeholders.

6. **Develop national programmes** to monitor antimicrobial use, based on OIE international Standards.



For more information : **www.oie-antimicrobial.com**

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We need you to handle antimicrobials **with care**

Pharmaceutical industry

ANTIMICROBIALS ARE **ESSENTIAL MEDICINES**

to control and treat infection in both humans and animals.

BUT THEY ARE LOSING **THEIR EFFICACY**

at an increasing rate.

- The risk that disease-causing agents will develop resistance to antimicrobials increases whenever these precious medicines are used inappropriately. Once bacteria are resistant, the antimicrobial is ineffective and can no longer treat the disease. This phenomenon is called antimicrobial resistance.
- Human, animal and plant sectors have a shared responsibility to prevent or minimise antimicrobial resistance selection pressures on pathogens. Continued availability and efficacy of existing antimicrobial classes and development of new ones are essential to maintain the health and welfare of animals.
- The responsible and prudent use of these invaluable medicines according to intergovernmental OIE Standards will help maintain their efficacy.

“WE ALL HAVE A ROLE TO PLAY, AND YOU, **THE PHARMACEUTICAL INDUSTRY, CAN HELP**”

WE NEED YOU

- Together, we need to **ensure the responsible and prudent use of antimicrobials in animals** to preserve their availability and efficacy.
- **Tackling pathogen resistance to antimicrobials is a priority objective of the OIE**. Through its international Standards, the OIE advocates for responsible and prudent use of antimicrobial agents – essential to human and animal health and welfare – by all animal health actors, including the pharmaceutical industry.

For more information: **www.oie-antimicrobial.com**

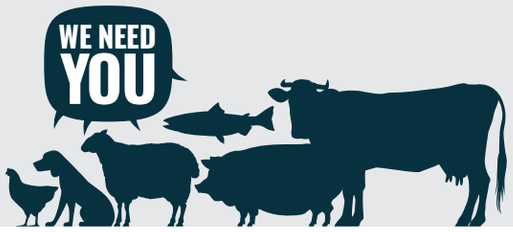
The pharmaceutical industry: the Gatekeeper

Pharmaceutical industry

- The role of the pharmaceutical industry is to develop and manufacture safe and effective antimicrobials. The industry should help fight antimicrobial resistance by producing quality medicines and ensure they end up in the right hands and are used prudently and responsibly.
- Your leadership and influence is central to this fight, demonstrating the professionalism and commitment that you bring to the sector.

The pharmaceutical industry should:

1. Ensure the **safety, efficacy and quality** of their antimicrobials, and adhere to good manufacturing practices.
2. Obtain **marketing authorisation**, and comply with the **codes of advertising** to not advertise veterinary products containing antimicrobial agents directly to the food animal producer.
3. Only use **officially authorised distribution** systems for the marketing and export of veterinary medicinal products containing antimicrobial agents.
4. Cooperate with the competent authorities and **share detailed sales data** for the monitoring of antimicrobial use and surveillance of antimicrobial resistance.
5. **Highlight the risk of antimicrobial resistance** and the need for responsible and prudent use whenever providing or supplying antimicrobials.
6. Participate in **training on the prudent** and responsible use of antimicrobials.
7. Contribute to **research** to help combat antimicrobial resistance, prioritise and focus on developing **alternatives to antimicrobials,** such as vaccines and rapid and affordable diagnostic tests.



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Veterinarians

WE NEED YOU

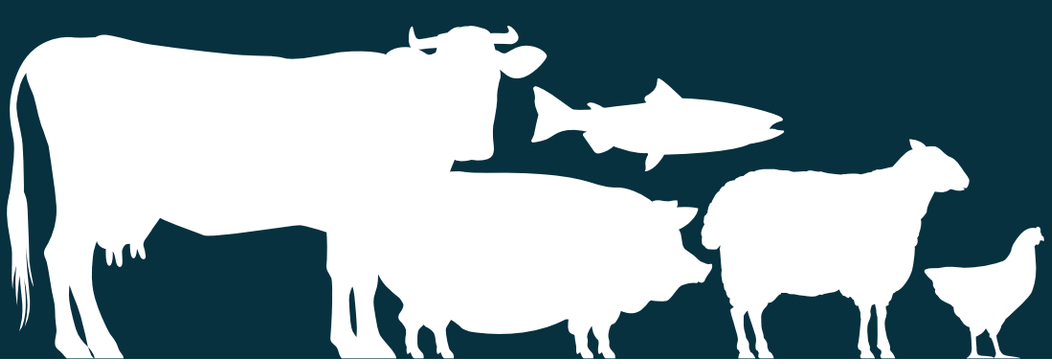
TO HANDLE ANTIMICROBIALS WITH CARE

Antimicrobials were discovered in the 20th century and have made a larger contribution to life expectancy than any other medication. **Antimicrobials have transformed human and veterinary medicine.**

THEY SAVE LIVES!

Nowadays, the emergence of resistance is a **major concern:** effective medecines to control and treat animal and human diseases may soon no longer work. Antimicrobial resistance is a major threat to animal health and welfare, food supply and food safety – worldwide.

WE NEED YOU TO ACT NOW TO PRESERVE ANTIMICROBIAL EFFICACY FOR TOMORROW.



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Veterinarians

WHAT IS ANTIMICROBIAL RESISTANCE AND HOW IT IS THREATENING US?

- **Once bacteria are resistant, the antimicrobial agent (or medicine) is ineffective and can no longer help to control or treat diseases. This phenomenon is called antimicrobial resistance (AMR).**
- Antimicrobial resistance is a threat to the health and welfare of animals, whether aquatic or terrestrial. **Resistant bacteria can circulate between humans, animals and the environment and do not respect borders.** It is therefore, a global human and animal health concern.
- **Misuse and overuse of antimicrobials in animals, humans or plants is a major factor driving the emergence and development of antimicrobial resistance.** Indeed, any inappropriate use of antimicrobials (unnecessary use, use against non-susceptible bacteria or virus, under-dosage, etc.) increases the risk of resistance development.

YOU ARE THE HEADLINERS

We all have a role to play, and **YOU**, as veterinarians or aquatic animal health professionals, **CAN HELP**. Being in contact with both animals and farmers, **you are the frontline on the battle front of antimicrobial resistance.**

Together, we need to **ensure the responsible and prudent use** of antimicrobials in animals to preserve efficacy.

Tackling pathogen resistance to antimicrobials is a priority objective of the World Organisation for Animal Health (OIE). Through its international Standards, the OIE advocates responsible and prudent use of antimicrobial agents – essential to animal health and welfare – **by well-trained veterinarians.** The key aspects of your role according to these Standards are presented in the following pages.

www.oie-antimicrobial.com

What can you do?

USE ANTIMICROBIALS RESPONSIBLY AND PRUDENTLY AND ADVISE YOUR CLIENTS TO PRESERVE ANTIMICROBIALS' EFFICACY

When and how should antimicrobials be used?

- **Only after a clinical examination** of the animal(s) by a veterinarian or trained animal health professional.
- **Only when necessary taking into consideration the OIE List of antimicrobial agents of veterinary importance.**
- Only in addition and never in replacement of good animal **husbandry practices, hygiene, biosecurity** and **vaccination programmes.**
- Only by making an appropriate choice of antimicrobial agent based on clinical experience and diagnostic laboratory information when possible.
- **Always in addition to detailed information on treatment protocols and withdrawal times.**

Choice of antimicrobial

How to choose the appropriate antimicrobial?

Take into account:

- **Farm records of previous antimicrobial use and epidemiological history of the farm.**
- **Clinical experience** and diagnostic insight.
- **Diagnostic laboratory information when available** (culture and sensitivity testing).
- **Pharmacodynamics** (activity against pathogens involved).
- **Pharmacokinetics** (tissue distribution, efficacy at infection site).
- The **OIE list of antimicrobials** of veterinary importance when choosing your treatment.

What to do if first-line treatment fails?

- Second-line treatment should be **based on results of diagnostic tests** including sensitivity testing.
- In the absence of test results a different class or sub-class should be used.

Can combinations of antimicrobials be used?

- Only if **supported by scientific evidence.**

Appropriate use & prescriptions

What should be written on the prescription for antimicrobials?

- **Dosage regimen** (dose, treatment intervals, duration of treatment).
- **Withdrawal periods** for meat and milk.
- **Amount of antimicrobial (to be) provided,** depending on dosage and number of animals.
- **Labelling of all veterinary drugs** supplied.

When is extra-label or off-label antimicrobial used allowed?

- **In agreement with national legislation.**
- **When appropriate registered product isn't available.**
- **With client informed consent.**

It is the veterinarian's responsibility to define the conditions of responsible use including the dosage regimes, route of administration and withdrawal period in these cases taking into account recommendations of the OIE List.

Data recording

What data should be recorded by the vet?

- Quantities of **antimicrobials used per animal species.**
- **Details of all antimicrobials supplied** to each farm.
- **Treatment schedules** (including animal ID and withdrawal period).
- **Antimicrobial susceptibility data.**
- Comments concerning the **response of animals to treatment.**
- **Adverse reactions** including lack of response due to antimicrobial resistance.

Train yourself and raise awareness of your clients on AMR

Why?

- To help **keep your knowledge up-to-date** and to ensure **implementation of good practices of antimicrobial use.**

About what?

- Information on **disease prevention** and **management.**
- **The ability of antimicrobials to select for resistance,** and the importance for human and animal health.
- The need to **observe responsible and prudent use recommendations.**
- **Appropriate storage conditions** and proper disposal.
- **Record keeping.**

What guidelines should be developed?

- Veterinary professional organisations should **develop species-specific clinical practice recommendations** for the responsible and prudent use of antimicrobials.

For more details, refer to the OIE international standards:

- **Article 6.9.6.**
  Responsibilities of veterinarians of the OIE Terrestrial Animal Health Code.
- **Article 6.2.7.**
  Responsibilities of veterinarians and other aquatic animal health professionals of the OIE Aquatic Animal Health Code.
- OIE List of antimicrobial agents of veterinary importance.

www.oie.int/amrstandards

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We need you to handle antimicrobials **with care**

Animal feed manufacturers

ANTIMICROBIALS ARE **ESSENTIAL MEDICINES**

to control and treat infection in both humans and animals.

BUT THEY ARE LOSING **THEIR EFFICACY**

at an increasing rate.

- The risk that disease-causing agents will develop resistance to antimicrobials increases whenever these precious medicines are overused or used inappropriately. Once bacteria are resistant, the antimicrobial is ineffective and can no longer treat the disease. This phenomenon is called antimicrobial resistance (AMR).
- AMR is a threat to the health and welfare of humans and animals, whether aquatic or terrestrial. However, the development of new antimicrobials has not kept pace with the increase of resistance.
- Continued availability and efficacy of existing antimicrobial classes are essential. Handling these invaluable medicines responsibly and prudently according to intergovernmental OIE Standards will help maintain their efficacy and availability for both human and animal health.

WE NEED YOU

“WE ALL HAVE A ROLE TO PLAY, AND YOU, AS A **MANUFACTURER** of antimicrobial-containing feed for animals, **CAN HELP**”

- Together, we need to **ensure the responsible and prudent use of antimicrobials in animals** to preserve their availability and efficacy, and thus preserve human and animal health and welfare.
- **Tackling pathogen resistance to antimicrobials is a priority objective of the World Organisation for Animal Health (OIE).** Through its international Standards, the OIE advocates for responsible and prudent use of antimicrobial agents - essential to human and animal health and welfare - by all animal health actors, including manufacturers of feed containing antimicrobials for animals.

For more information: **www.oie-antimicrobial.com**

Animal feed manufacturers:
You are the Intermediaries

Animal feed manufacturers

- Feed manufacturers have a key role to play in preserving antimicrobial efficacy and availability. By limiting the access of medicated feed to veterinary prescription, they can counter overuse and miss use that leads to increased antimicrobial resistance. Acting today to protect the future of antimicrobials efficacy.
- Producers of animal feed containing antimicrobials should adhere to best practice guidelines in order to combat antimicrobial resistance.
- As feed manufacturers it is your responsibility. Your leadership and influence is central to this fight, demonstrating your professionalism and commitment to the sector.

Manufacturers of antimicrobial-containing feed for animals should:

1. Be **approved** for the manufacture of medicated feed, and follow all legal requirements for medicated feeds.
2. Only use **approved sources** of medicines. Ensure that only approved sources of medications are added to feed, at a level, and for a species and purpose permitted by the drug premix label or a veterinary prescription.
3. **Avoid contamination** with harmful agents and prevent contamination of non-medicated feed.
4. Implement **best manufacturing practices** for optimal hygiene and appropriate mixing to guarantee the homogeneity of antimicrobials in the feed.
5. Only supply to farmers following a **veterinary prescription.**
6. Ensure **appropriate labelling** (level of medication, approved claim, intended species, warnings and cautions) with product identification (ingredients, inclusion rates), directions for use and withdrawal time.
7. **Keep appropriate records** to allow traceability.
8. Cooperate with the competent authorities and **share sales and distribution data** for monitoring of antimicrobial use.

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