

Veterinary Medicine Safety Day 2026

Lack of expected efficacy of
antiparasitic products



1

What are antiparasitic products?

Antiparasitic products or antiparasitics are veterinary medicines containing substances that repel, kill or interrupt the development of parasites (e.g. worms, fleas, ticks, mites) after administration to or on animals.

They are used to treat or prevent infections/infestations or diseases caused or transmitted by parasites.

2

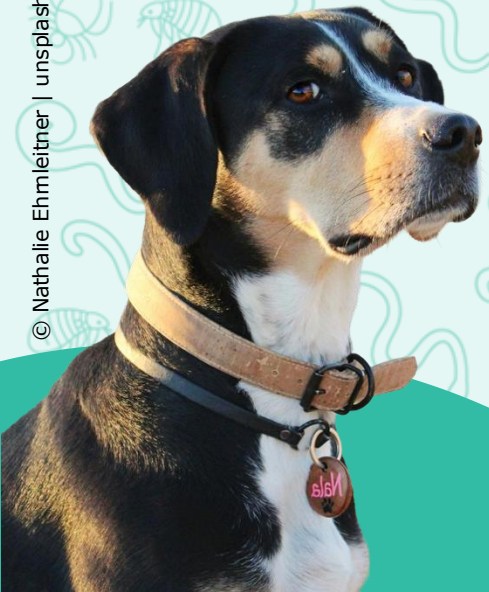
What is antiparasitic resistance and how does it arise?

- Antiparasitic resistance is the situation in which the parasites are no longer susceptible to an antiparasitic substance when used at the recommended dosage.
- Resistance is a **heritable** trait arising from selection, meaning that the few parasites naturally carrying resistance genes can survive the treatment, and progressively build up a resistant population.
- Antiparasitic resistance can result from inappropriate/unnecessary use of antiparasitic products or use **deviating** from the instructions given in the package leaflet. Repeated use for an extended period, particularly when using the same class of antiparasitic substances, and underdosing increase the risk of resistance development.
- An observed lack of expected efficacy is not automatically attributable to antiparasitic resistance. Veterinarians may advise the use of specific tests to establish if resistant parasites are present and propose appropriate **solutions**.

3

What is lack of expected efficacy (LEE) of an antiparasitic product?

- Lack of expected efficacy (LEE) of an antiparasitic product is any observation of a lack of expected therapeutic effect following administration to an animal.
- Signs of LEE may include:
 - persistence of parasites,
 - insufficient reduction of faecal egg count after treatment,
 - no or poor clinical response despite treatment,
 - weight loss or poor growth rates,
 - increased mortality.
- A lack of expected efficacy may be caused by the development of resistance or by other factors, such as the **incorrect** use of the antiparasitic product.



4

What can you do to avoid LEE before using the antiparasitic product?

- Treat only if necessary and **carefully** select the animals to be treated. The need for antiparasitic treatment of an individual companion animal depends on its lifestyle and environment. In livestock or other animals raised in groups, depending on the parasites and the parasite burden, treatment of the whole group should preferably be avoided as it may cause the emergence of a resistant parasite population. Veterinary advice is necessary to balance the benefits and risks of the treatment, for both the animals and the humans in contact.
- Susceptibility of parasites to various antiparasitic products may vary. Therefore, a **precise** diagnosis is important and may require veterinary advice to choose the most appropriate treatment.
- Antiparasitic combination products (products containing two or more active substances) should only be used when there is a **mixed** infection/infestation (or risk thereof) and only according to the indications in the product information.
- Broad-spectrum antiparasitics should only be used **prudently** and based on clinical needs. Narrow-spectrum products should be given preference where possible.



5

What can you do to avoid LEE when using the antiparasitic product?

- Take time to read all of the package leaflet to ensure the product is used **correctly**. Warnings included in all sections of the package leaflet provide important information which helps avoid LEE.
- **Accurate** dosing is critical; therefore, determine the body weight of the animals to be treated as accurately as possible and use appropriate dosing devices.
- Respect the dosing regimen, as this is crucial for ensuring the efficacy of antiparasitics.
- To avoid misuse and unnecessary environmental impact, any unused product or waste materials should be disposed of **appropriately**, as indicated in the package leaflet.

6

What should you do if you suspect an antiparasitic product has not worked?

- You should always report when you **suspect** that an antiparasitic product has not worked, also known as LEE.
- **Anyone** can report.
- Reporting is relevant for **ALL** species of animals (even if not mentioned in the package leaflet) including companion animals, livestock, fish and bees.



7

What should be reported?

- Reports should include as much information as possible, including:
 - Information about how the parasitic infection was confirmed.
 - Product name, dose given, and date of administration.
 - When LEE was first suspected and why.
 - Results of any tests used to confirm the suspected LEE.

You do **not** need to be sure if the antiparasitic product has not worked to submit an LEE report.

8

How do you report?

- LEE should be reported to*:
 - your National Competent Authority [[National contact points](#)],
 - the company responsible for the product (Marketing Authorisation Holder).
- Animal owners/carers are encouraged to **report** all cases of LEE, preferably via a veterinarian.

* Contact details are found in the package leaflet. Note that reporting methods may vary and in some countries veterinarians may have a legal obligation to report.

Reports of lack of expected efficacy reported in the EU can be viewed here:

<https://www.adrreports.eu/vet/>

9

Why is it important to report?

- Under-reporting of LEE is a common problem and may allow potential resistance issues to go undetected.
- Each report of LEE contributes to the data continuously monitored by pharmaceutical companies to ensure recommended treatment programmes (including use in non-target species) remain **effective** against parasites and monitor resistance development within regions worldwide.
- All reports, worldwide, are submitted to the EU adverse event database and contribute to the data continuously evaluated to ensure the benefits of the veterinary medicines continue to **outweigh** their risks.
- When appropriate, regulatory actions can be taken, such as changing the way the antiparasitic product is used or informing veterinarians and animal owners/carers of potential concerns.
- By reporting, you are improving the knowledge on the safe and effective use of antiparasitic products to protect animal and public health and the environment.

