Fighting antimicrobial resistance as an aquatic animal health professional

Misuse and overuse of antimicrobials in aquatic animals can lead to the development of resistant pathogens and undermine global health. As you have the power to prescribe and use antimicrobials, you have an essential role to play in the fight against antimicrobial resistance. Let's preserve the efficacy of antimicrobials by using them responsibly and only when necessary.

Here are answers to the most frequent questions you may have.

When should I **prescribe antimicrobials?**

- After conducting a clinical examination and further testing of aquatic animals showing clinical signs for establishing a medical diagnosis, and considering other options or alternatives.
- Never in replacement of good animal husbandry practices, hygiene, biosecurity and vaccination programmes.

How should I **prescribe antimicrobials?**

- By basing my choice of antimicrobial agent on clinical experience and diagnostic laboratory information.
- By taking into consideration the WOAH List of antimicrobial agents of veterinary importance, in particular the appendix for aquatic species.
- By providing aquatic animal producers with detailed information on treatment protocols and withdrawal periods.

What should I **consider in order to choose the appropriate antimicrobial?**

- Farm records of previous antimicrobial use and epidemiological history of the aquaculture establishment and neighbour establishments.
- Clinical experience and diagnostic insights.
- Diagnostic laboratory information when available (culture and antimicrobial susceptibility testing).
- Pharmacodynamics (activity against pathogens involved).
- Pharmacokinetics (tissue distribution, efficacy at infection site).
- Characteristics of the aquatic species and their aquatic environment.
- WOAH list of antimicrobials of veterinary importance.

What should I **do if first-line treatment fails?**

- Report lack of expected efficacy to the national competent authorities.
- Base the second-line treatment on diagnostic test results, including antimicrobial susceptibility testing.
- When available, use a different class or sub-class in the absence of test results.
- Only use combinations of antimicrobials if supported by scientific evidence.

What should I **write on my prescriptions for antimicrobials?**

- Label of the drugs (active ingredient, commercial name).
- Dosage (antibiotic/kg of fish).
- Formulation (antibiotic/kg of feed).
- Feeding rate (kg of medicated feed/day).
- Duration of the treatment.
- Withdrawal period.

This is a simplified prescription content, assuming that antimicrobials are provided orally in medicated feed.

What else can I **do on a daily basis to help curb AMR?**

- Educate myself on the AMR situation, on good practices and on the use of scientifically proven alternatives to antibiotics.
- Educate people around me on AMR, it is a global challenge which concerns us all.
- Advocate for alternatives to antimicrobials such as vaccination.
- Advocate for prevention measures such as biosecurity and good husbandry.
- Collaborate with other sectors to address this as a One Health challenge.

World Organisation for Animal Health
Founded as OIE

www.woah.org

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