Responsible use of antimicrobials in farm animals

John F Mee and Bernadette Earley
Teagasc Animal and Grassland Research & Innovation Programme

Prudent use of antimicrobials ensures that farmers, and their veterinary practitioners, will have continued access to these powerful drugs in the future. However, because of potential threats to human and animal health from antimicrobial resistance (AMR), the use of certain antimicrobials will have to be restricted.

Antimicrobial resistance occurs when bacteria become resistant to antimicrobials, e.g. antibiotics.

Resistant bacteria can spread between animals and humans so AMR is a problem for both animals and, more importantly, humans. So, farmers need to act now to preserve their access to the use of these drugs in the future by spearheading the antimicrobial resistance campaign.

> The risk of AMR is increased if antimicrobials are used inappropriately – used when there is no need to use them, for example

The risk of AMR is increased if antimicrobials are used inappropriately, e.g. used when there is no need to use them; used when the bacteria responsible for the illness are not susceptible to the antimicrobial administered; used when the illness is not caused by bacteria but, for example, by a virus/es and under-dosing the antimicrobial administered. So, what can you do to reduce the risk of AMR in your stock and still maintain good animal health and welfare?

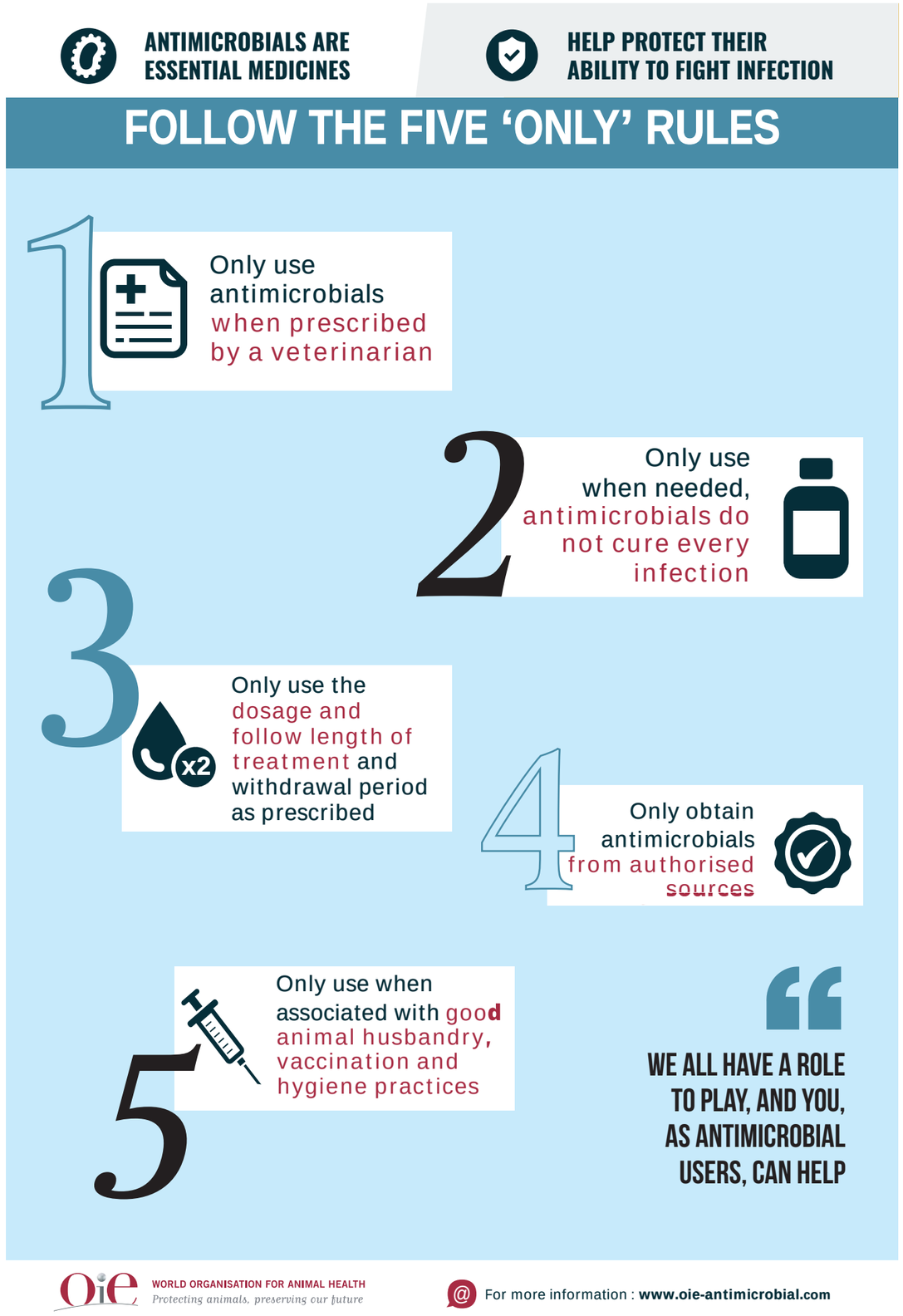
- Only use antimicrobials after your local vet has examined the animal/s.
- Don't use antimicrobials to replace good hygiene, good stockmanship, good management and good biosecurity.
- Adhere to the correct dosage schedule regarding dose rate, number of doses and withdrawal period.
- Use lab tests where possible to guide choice of the most appropriate antimicrobial.
- Never use antimicrobials as a 'blanket treatment' of a group of animals

Adopting these new guidelines may involve a change in the way you currently use antimicrobials. However, studies have shown that it is possible to significantly reduce the use of antimicrobials in farm animals and still maintain animal health and welfare.

Just because you have always treated sick animals in a certain way with a certain antimicrobial does not mean that you should continue to do so now that we are facing the real risks of AMR to both our animals and human health.

The Code of Good Practice developed by the industry is available on the DAFM website, www.agriculture.gov.ie.

GUIDELINES

The following guidelines are recommended to maintain acceptable levels of antimicrobial usage on beef and dairy farms:

- **Develop a herd health plan in consultation with your veterinarian and Teagasc advisor.**
- **Pay attention to colostrum feeding, animal nutrition and animal purchasing policies.**
- **Vaccinate animals to reduce the need for antimicrobials, and use alternatives to antimicrobials when available.**
- **As already stated, but it's worth reinforcing, only give antimicrobials to animals under veterinary supervision.**
- **Do not use antimicrobials for growth promotion or to 'prevent' diseases in healthy animals.**
- **Improve biosecurity on farms, and prevent infections through improved hygiene and animal welfare.**