# How One Health can help keep your family safe

Antibiotic resistance can affect us all and it is important to understand it is a critical human health issue, writes **Tommy Heffernan** 

or the last number of weeks we have been introducing people to the challenge of antibiotic resistance – what is it and how it affects people, animals and our environment. The idea of One Health is we are all in this together and individual actions can affect many more people than ourselves.

We share our bodies and environment with billions of bacteria. The vast majority of these are not harmful. Those that are harmful are smart and want to survive. When challenged by antibiotics, they can develop resistance to these products. These are life forms that have been around since long before the dinosaurs.

When we discovered antibiotics and began using them in the 1940s, they transformed human medicine. It is said antibiotics have added 20 years to human life expectancy. In the preantibiotic era, simple infections were life-threatening illnesses. This is not something we want to return to. By engaging with the One-Health concept, we can all work together to ensure antibiotics continue to work.

We want farmers to reduce their on-farm antibiotic use through better husbandry and management. This doesn't have to make farms less profitable, as often overuse of antibiotics masks challenges that need to be addressed to make your farm more profitable. We must move beyond short-term disease solutions and start asking why disease is occurring.

#### Reduction

Last month, UK farmers and vets announced they had reduced their use of antibiotics by 50% over five years. There has been only a slight decline in on-farm antibiotic use in Ireland over this period. We can do more and must do more.

Our antibiotic usage affects our farms and our families. Consultants in



Consultants in hospitals are seeing increasing issues in relation to antibiotic resistance in children and older people.

hospitals are seeing increasing issues in children and older people. Multi-resistant bugs are causing significant problems with conditions such as bladder infections. While we are not yet near a scenario where routine surgeries become untenable, we must do everything to protect antibiotics by using as little as possible but as much as necessary.

Farmers will need to use antibiotics and use them correctly for the best results. If we overuse them, we risk causing resistance on our farms. We share resistant bugs in our environ-







A joint awareness campaign by the Irish Farmers Journal and the Department of Agriculture, Food and the Marine

ment, which are a risk to ourselves and our families. We must think before we treat, we must think how we can get better by engaging with better animal health on our farms.

Since starting this campaign, I have begun to learn things myself about how important One Health actually is. Sadly, there are few farming families who haven't been touched by cancer in the past or present. For many, chemotherapy has been a hard road, but has saved many lives. While these aggressive chemicals attack cancer cells, they also destroy the body's immune system, meaning a cocktail of antibiotics helps while these chemical do their work.

For some this means they can get through, for others it simply means more time. Don't underestimate that time and what it means to those who get it. This is one area where doctors really worry about being affected by antibiotic resistance. This series aims to make people think about how our decisions affect you, your farm and all our futures.

## Changing mindsets on antibiotic use

The first of the on-farm visits have now been completed in Project Engage and we are already seeing both the vets and farmers more focused on change

ast week I attended a very well run national One Health event. It was a call to action on the challenge of antibiotic resistance. The *Irish farmers Journal*, Xlvets Ireland and Virtual Vet, are already taking action on this key issue through Project Engage.

It is great to see the early results from this project driven by the vets and farmers involved. All on-farm antibiotic usage has been measured for the last three years. We have targeted areas for reduction and, through regular vet visits, we are improving animal health.

Most importantly, the farmers understand more about antibiotic usage on their farms.

Vet Ger Cusack of Comeragh Vets and his clients have been championing the project since inception. On the dairy farm of John Cummins, they identified managing calcium for next spring as a priority. This is based on silage analysis and previous challenges. They also worked hard on selective dry cow therapy, with even more emphasis placed on hygiene.

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John has moved away from his use of critically important antibiotics (CIAs), which are used in frontline human medicine, to amoxicillin at drying off.

Vet John Healy of Glasslyn and his client Barry Walsh also have made a move away from CIAs at drying off. They have also engaged in

selective dry cow therapy. However, following strep agalactiae (bacteria) being identified in cultures, they decided to go back to blanket therapy this year. They have also walked through winter housing and are making small adjustments. The next visit will be focused on preparing for spring. John and his clients have really begun to think differently about antibiotics. They are all finding it exciting to look at the positive impacts of reducing antibiotic use.

Riverview vet John Salmon also completed several visits. Mastitis was identified as a key use of antibiotics on one farm. They changed some treatments but also focused on areas to reduce the risk of mastitis.



### ENGAGE

One of the farms has also been dealing with a lot of calf pneumonia over the last few years. Their attention now turns to reviewing calf health, housing and a vaccine strategy.

All the visits consisted of a range of diagnostic testing which is influencing decision-making around dosing and vaccination. It is very early days, but some points to note are:

All farms after measuring are using low amounts of antibiotics per kg.

⇒ All the dairy farms have now considered or are starting selective dry cow therapy.

The farmers have really got to understand why we need to remove CIAs from treatments.
 The vets are really embracing the proactive approach by being on-farm ahead of risk times.
 Positive professional relationships are developing, with the vets and farmers working closely as a team.

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