

Does Antibiotic Use in Animals Cause Resistance in Humans?

Translated Editorial by Chris Wright, El Sitio Avicola

A symposium held at the end of October, called “Antibiotic Use in Food Animals: A Dialogue for a Common Purpose,” took a close look at how antibiotics are used in animal husbandry and what those effects are on the human population, writes Chris Wright, senior editor of ThePoultrySite.

The truth is that in Latin America and other regions of the world, antibiotic use in animals has not become a controversial subject, as it has in Europe and the United States. It also does not seem likely that governments in other parts of the world are going to prohibit the use of antibiotics in animals, particularly in relation to their use as growth promoters.

However, in Europe these prohibitions already exist, while in the US some prohibitions exist, with many more promised in the future.

The speakers at this symposium represented the agribusiness sector and were definitely in favor of antibiotic use in animals.

Dr Scott Hurd of Iowa State University indicated that risk management interventions at various points along the causal chain are intended to minimize and contain antimicrobial food borne bacteria to ensure public health and food safety.

Dr Hurd concluded that alternative risk of sub-optimal animal health may be higher than the risk of on-farm antibiotic use.

The panelists who covered the different species stressed that they would much rather prevent disease than treat it. Therefore, they emphasized the importance of biosecurity and good management practices.

A panel of veterinarians specifically addressed: beef cattle, dairy cattle, swine and poultry. They all agreed that while there was minimal risk that the use of antibiotics in animals caused resistance in humans, they also acknowledged that the risk was not zero.

An important point for the veterinarians was the way in which this debate expresses itself. They indicated that we should not talk about “antimicrobial resistance” in general terms, but rather refer to each specific case. In other words, “does X antimicrobial for X bacteria cause resistance?” You really cannot generalize, because there are too many differences among medications and bacteria.

Dr. Hector Cervantes from Phibro represented the poultry sector. He said that he does not like the term “growth promoters”, since antibiotics are really “health promoters” and there is much evidence to support that.

Dr. Cervantes observed that 50 per cent of the antibiotics used in the poultry industry are ionophores and these are used exclusively to combat coccidiosis.

He mentioned that in the US, the top 10 companies control 80 per cent of the market. He said that, contrary to what the public believes, having bigger companies means having more veterinarians, with more emphasis on good management to control diseases.

Many of the largest companies in the US have not used antibiotic growth promoters for more than 10 years. Many of these companies have some operations with antibiotic-free birds, including for coccidiosis. However, there are still companies in the US that use antibiotic growth promoters, said Dr .Cervantes.

Within a poultry integration in the US, he said, the integrators that produce the birds cannot use antibiotics without the permission of the company production manager. It is a very low percentage of broilers that is treated with antibiotics in the US, around three per cent. That number is higher in broiler breeders, at 14 per cent, Dr. Cervantes indicated.

In conclusion, this symposium presented the scientific evidence as to why the agribusiness sector does not believe that the use of antibiotics, as growth promoters or therapeutic agents, is the cause of antibiotic resistance in humans.

The agribusiness sector believes that it is the abuse of antibiotics in humans that is the main reason for antibiotic resistance problems.

However, the agribusiness sector admits that they have already lost the “propaganda war”, seeing that the majority of US consumers believe that resistance is primarily due to the use of antibiotics in food animals.