29th February 2016

UK poultry industry increases its use of critically important human antibiotic by 59% in one year leading to record levels of resistance

New data obtained by the Bureau of Investigative Journalism from the UK's Veterinary Medicines Directorate (VMD) has revealed that the poultry industry's use of fluoroquinolone antibiotics, which are classified as critically important in human medicine by the World Health Organization (WHO), went up by 59% between 2013 and 2014 [1]. The mass-medication of animals with antibiotics is common in veterinary medicine, to prevent disease among intensively farmed animals.

The increase in fluoroquinolone use in poultry farming has been mirrored by rising resistance to the antibiotics in human campylobacter infections, which has reached record levels. Scientists believe the overuse of fluoroquinolones in poultry is contributing to higher levels of resistance to the antibiotics in human infections, particularly in the case of campylobacter, as resistant bacteria can pass from chickens to people.

A recently published study found that nearly 50% of campylobacter cases at the Royal Liverpool University Hospital were resistant to fluoroquinolones [2]. The scientists involved in the research said that resistance was now so high that fluoroquinolones could no longer be relied upon for treating campylobacter in many cases. They pinpointed the veterinary use of antibiotics as the most likely cause of the increasing rates of resistance. Data from the VMD showed that the rate of fluoroquinolone resistance in the main type of campylobacter from poultry increased from 31% in 2013 to 44% in 2014 [3].

Emma Rose of the Alliance to Save Our Antibiotics said: *"Scientists have been warning for twenty-five years that the medical use of fluoroquinolones was being undermined by their use in poultry, but these shocking new figures show that all these warnings have been to no avail. Resistance rates are now increasing in both poultry and humans, and no new antibiotics are going to become available soon to compensate.*

"The Government needs to follow the examples set in many other countries, like the United States, and ban all use of these antibiotics in poultry. Use in other species also needs to be severely restricted so that these critically important antibiotics are never used for mass medication or for routine prevention."

Scientists have frequently been outspoken about the consequences of overusing antibiotics in poultry. A review carried out by scientists from Public Health England, Oxford University and Swansea University of UK studies of retail chicken, which was published in 2013, found widespread resistance to fluoroquinolone and other antibiotics [4]. The scientists said: “Since retail poultry is considered to be one of the most important reservoirs of human campylobacter infections, this pervasive resistance is likely to have far-reaching public health consequences." Campylobacter is estimated to cause around half a million infections a year in the UK, and poultry are thought to be the largest source of human infections. Fluoroquinolones are very important antibiotics for treating certain campylobacter infections in people, and the WHO has advised governments several times to give a high priority to cutting their use in farm animals.

Fluoroquinolones are also widely used in intensive farming to treat a wide variety of diseases. Under current EU legislation, if a small number of chickens in a flock show signs of ill-health, these antibiotics can be added to the drinking water of the whole flock, even when most of the birds are healthy.

Ends

Notes for Editors:

The Alliance to Save Our Antibiotics is an alliance of health, medical, environmental and animal welfare groups working to stop the overuse of antibiotics in animal farming. It was founded by Compassion in World Farming, the Soil Association and Sustain in 2009, and is supported by the Jeremy Coller Foundation. Its vision is a world in which human and animal health and wellbeing are protected by food and farming systems that do not rely routinely on antibiotics and related drugs.

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[1] The British Poultry Council (BPC) voluntarily collected antibiotic usage data from its members and submitted it to the VMD. An overall figure was then published by the VMD, but without a breakdown by antibiotic family. A Freedom of Information request submitted by the Bureau of Investigative Journalism to the VMD subsequently established that in 2013 BPC members use 710 kg of active ingredient of fluoroquinolones and this increased to 1,126 kg in 2014. BPC members produce about 90% of British poultry meat. Antibiotic use in game birds and in the egg industry is not covered by the BPC statistics.

[2] Stockdale et al. 2015, Emergence of extensive fluoroquinolone resistance in Campylobacter gastroenteritis in Liverpool, UK, *The Journal of Infection*

[3] See p35, UK Veterinary Antibiotic Resistance and Sales Surveillance 2014, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/477788/Optimised_version_-_VARSS_Report_2014__Sales___Resistance_.pdf

[4] Wimlarathna et al. 2013, Widespread acquisition of antimicrobial resistance among Campylobacter isolates from UK retail poultry and evidence for clonal expansion of resistant lineages, BMC Microbiology