

## Will Governments Get to Grips with Antibiotic Use?

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**ANALYSIS - The use of antibiotics on farm has been causing concern among consumers, farmers, politicians and lobby groups for some time and it is starting to become a major crusade for some to restrict their use, writes Chris Harris.**

Where it was once left to veterinary and medical groups to draw up guidelines over their use, now antibiotics and antibiotic resistance are at the centre of a heated political debate and calls for strict legislation and regulation.

The concern surrounds the liberal use of antibiotics as a blanket measure to prevent disease and in some countries the use as a growth promoter for some animals.

In the US, the campaign to restrict antibiotic use has been led by Congresswoman Louise Slaughter.

In her campaign among politicians and in the food and farming industry Congresswoman Slaughter said: "Very simply, consumers have a right to know what's in their food.

"The US is facing a growing public health crisis in the form of antibiotic-resistant bacteria, and information about how these companies are contributing to its rise or resolution should be available to consumers."

She added: "There are some who would have us believe that we must pump our food up with antibiotics to keep prices low and affordable.

"But the food industry has proven success stories and leaders who understand the benefits that come from raising and serving antibiotic-free meat. It is not incompatible for us to have healthy and affordable food."

Over the last week the call for action to restrict the use of prophylactic antibiotics on farm was made in the UK parliament.

Conservative MP, Zak Goldsmith, **(pictured)** called on the government for measures to limit the prescription and use of antimicrobials for the herd treatment of animals to cases in which a vet has assessed that there is a clear clinical justification and to limit the use of "critically important antibiotics" to cases in which no other type of antimicrobials will be effective.

Mr Goldsmith's fears stem from research that has shown that the overall use of antibiotics for each animal on UK farms increased by 18 per cent between 2000 and 2010, while the farm use of third and fourth-generation cephalosporins - drugs that Mr Goldsmith said have been described by the Health Protection Agency as hospital workhorses - increased by more than 500 per cent.

Data from the Veterinary Medicines Directorate show that sales of fluoroquinolone antibiotics for use in veterinary medicine over the past two years have been 70 per cent higher than they were in 2000.

Mr Goldsmith said in Parliament that when fluoroquinolones were first licensed for use in poultry in the UK in 1993, there was no registered antibiotic-resistant campylobacter in people, who had not been treated with the antibiotics, but by 2007, almost half - 46 per cent - of the campylobacter food poisoning cases caused by the most common strain were resistant.

The problem was recognised by the European Food Safety Authority in 2008, when it said that a major source of human exposure to fluoroquinolone resistance via food came from poultry.

Mr Goldsmith called for a ban on the use of fluoroquinolone antibiotics in poultry production to reduce

the risk of antibiotic resistance in *E. coli*, campylobacter and other infections in humans.

If its use is banned it would bring the UK into line with the US, where the Food and Drug Administration stopped the use of those antibiotics in poultry in 2005, because of increasing resistance in campylobacter.

Denmark, Finland and Australia also do not use fluoroquinolones in poultry and all those countries have lower levels of resistance in humans.

The latest Danish disease surveillance report showed that, although the presence of antibiotic-resistant bacteria in the country's pig population had decreased since tighter restrictions came into effect, including the banning of cephalosporins, the level of antibiotic-resistant bacteria in meats being imported into the country are higher than in its domestic meat.

Nearly half the tested samples of chicken meat imported into Denmark in 2011 contained resistant bacteria. The Danish Government has taken the issue to the European Commission because it is worried that the country's action has been undermined by other EU states' continued overuse of antibiotics.

Mr Goldsmith said: "Almost certainly, excessive antibiotic use on farms is linked to the intensive manner in which animals are kept.

"Improving animal health and welfare by limiting overcrowding and the worst excesses of factory farming must therefore become key components of the Government's antibiotic resistance strategy.

"Disease prevention should be achieved through good hygiene, husbandry and housing, without recourse to the regular prophylactic use of antimicrobials."

In the parliamentary debate, Northern Irish MP, Jim Shannon, showed that much of the concern about antibiotics and antibiotic resistance was not that they were being used at all, but how they are used on the farm.

He said the problem was that the use by the farming sectors - whether pig, poultry or beef - of antibiotics is unnecessary, because there is a blanket use, rather than reacting to disease.

At present, the UK, through the Department of Health, is developing a new cross Government, five year antimicrobial resistance strategy and action plan for 2013 to 2018.

But the concern among many, including Zak Goldsmith, is that the government is concentrating on antibiotic resistance through over over-prescription of antibiotics by doctors for human treatment, but there has been little concentration on their use in the livestock industry.

And the Health Minister, Anna Soubry, in reply to Mr Goldsmith said: "Although the link between antimicrobial use in animals and the spread of resistance in humans is not well understood, there is scientific consensus that the use of antimicrobials in human medicine is the main driving force for antimicrobial-resistant human infections. The majority of resistant strains affecting humans are different from those affecting animals."

This line has been repeated not only by the government but also by the industry.

The British Poultry Council following the Parliamentary debate said: "'BPC agrees with the Minister's statement regarding the scientific consensus on veterinary use of antibiotics not being a significant driver for human multiresistant infections. Scientific evidence increasingly recognises that the problem of antibiotic resistance in humans comes largely from the use of antibiotics in human medicine. Nevertheless, the poultry sector recognises the essential need to use antibiotics safely and responsibly."

The BPC, however, also said that the UK industry had voluntarily banned the use of cephalosporins in poultry production and the action on fluoroquinolones in day-old chicks.

"As reflected in the 2011 VMD report on antibiotics sales, antibiotic use on poultry farms is decreasing. As an active member of the Responsible Use of Medicines in Agriculture Alliance, the British poultry industry promotes responsible use of antibiotics for poultry according to strict veterinary assessment," a BPC statement read.

The Health Minister in parliament, however, said that although the British government did not see the veterinary use of antibiotics as a "significant driver for human multiresistant infections", the veterinary use would be included in the current review and the strategy that is being drawn up at present.

She said: "We continue to work actively with the farming industry to promote the responsible use of antibiotics in farmed animals and industry organisations have also developed guidance."

The Minister added: "Veterinary use of antibiotics is also being addressed at a European level.

"It forms a significant component of both the 2011 EU action plan against the rising threats from antimicrobial resistance and the 2012 EU Council conclusions. The EU legislation on veterinary medicines is currently under revision, and the UK, with other member states and the Commission, is examining the available evidence to establish whether there is a need for additional controls on antibiotics used in animals.

"The Government will continue to press for measures to strengthen controls on antibiotics that are critically important for human health, to make it clear that they should be used for animals only when no effective alternatives exist."

This government stance has drawn little applause from some lobby groups, however.

Soil Association Policy Adviser Richard Young said: "The Government is factually incorrect and morally irresponsible to claim the evidence is inconclusive and then use this as an excuse for inaction.

"There is an international scientific consensus that farm animals form a major reservoir of antibiotic resistance in food poisoning bacteria and there is now overwhelming evidence that they also contribute significantly to a number of other serious resistant infections in humans, particularly those caused by non-food poisoning forms of E. coli."



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