Antimicrobial Use in Danish Pigs Continues to Increase

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DENMARK - Antimicrobial usage in animals in Denmark continued to increase in 2013 – mainly due to an increased use in pigs. However, antimicrobial use in pigs is still 12 per cent lower than in 2009.

In general, livestock received very little of the critically important antimicrobials, which are used to treat humans.

These findings appear in the annual DANMAP report from Statens Serum Institut and the National Food Institute, Technical University of Denmark. DANMAP is the Danish integrated antimicrobial resistance monitoring and research programme.

In 2013, the total use of antimicrobials in livestock and pets in Denmark was four per cent higher than the previous year when measured in kilograms. The increased consumption is mainly attributed to a six per cent increase in the consumption of antimicrobials in pig production, which accounts for about 84 per cent of meat production in Denmark. But the consumption in poultry and pets has also increased.

Distributed by species, pigs account for around 78 per cent of antimicrobial use in 2013, cattle 10 per cent , aquaculture three per cent, poultry one per cent, fur animals four per cent, and pets, horses and other companion animals the remaining three per cent.

Increased use in Pigs and Poultry

Antimicrobial consumption in pigs measured in doses has increased in all three age groups: sows / piglets (nine per cent), weaners (five per cent) and finishers (five per cent). This is primarily due to an increased consumption of pleuromutilins and tetracyclines, which are used for group medication. However, the consumption in pigs is still 12 per cent lower than in 2009, when the highest consumption was recorded since Danish farmers stopped using antimicrobial growth promoters.

”It is crucial that we reverse the increase in consumption, if we are to tackle the problem of antimicrobial resistant bacteria,” senior researcher, Dr Yvonne Agersø from the National Food Institute says.

In 2013, antimicrobial consumption in poultry increased by 57 per cent compared to the year before. This is partly because of the wet winter, which led to more illness and – as a result – an increased consumption of tetracyclines in turkeys. An increased occurrence of diarrhoea in broilers in 2013 can partly explain the increased consumption of penicillins, which are an effective treatment against diarrhoea.

”Antimicrobial consumption in poultry is generally low compared to other species. It accounts for only one per cent of the total use. For this reason, a few outbreaks of illness can cause significant fluctuations in the annual consumption data,” Dr Agersø explains.

Continued Low Use of Critically Important Antimicrobials

Consumption of critically important antimicrobials in animal production is still low. For a second consecutive year, the use of fluoroquinolones in pigs was very low in 2013 at less than one per thousand of the total consumption in pigs. The use of 3kg of cephalosporins in pig production is also low. However, it does represent a significant increase compared to the year before when total consumption of cephalosporins was 1kg. There has been a significant drop in consumption in cattle.

”It remains important that Danish pigs and cattle are treated with critically important antimicrobials only when absolutely necessary to help ensure these agents continue to be effective when treating seriously ill people,” Dr Agersø says.
In 2010, Danish pork producers introduced a voluntary ban on the use of cephalosporins where other effective treatment options are available. In August 2014, the Danish Agriculture & Food Council encouraged cattle farmers to only use cephalosporins where this is the only effective treatment option. Cephalosporins are not used in poultry production.

Companion Animals and Horses

Overall, the consumption of antimicrobials in the treatment of companion animals and horses increased in 2013 compared to the year before. This increase was not due to an increase in the use of critically important antimicrobials, as the consumption of both cephalosporins and fluoroquinolones in 2013 was lower than the year before. However, companion animals account for nearly 40 per cent of the combined veterinary consumption of fluoroquinolones.
”While it is unfortunate that we continue to see an increase in the total use in companion animals, it is encouraging to see a drop in the use of antimicrobials that are critically important to humans. This suggests that the treatment guidelines put out by the Danish Veterinary Association in November 2012 has had some effect. The guidelines call for critically important antimicrobials to be avoided as much as possible,” Dr Agersø says.

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