

Overuse of antimicrobials in livestock risks human health, warn experts

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Excessive use of antimicrobials in livestock promotes resistance and risks the future health of both animals and humans, warn experts in an editorial published by Student *BMJ* today.

Jørgen Schlundt and colleagues at the National Food Institute in Denmark argue that the routine use of antimicrobials can be reduced substantially, while maintaining profitable animal production, and call for their use to be monitored in all countries.

Antimicrobials are essential for treating bacterial infections in humans and animals. Substantial amounts are used in modern animal production, but their use can result in bacteria that are resistant to treatment.

Resistant bacteria can spread from animals to humans, mainly through the food chain.

Three of four recently emerging infections in humans originate from animals: avian influenza H5N1, severe acute respiratory syndrome (SARS), and *Salmonella*.

Several global organisations have proposed a range of different actions to contain antimicrobial resistance from animals, including restricting use in animals of the most critically important antimicrobials for humans. The European Union has also begun monitoring resistance in food animals and is implementing mandatory monitoring of antimicrobial usage in all member states.

Such monitoring already occurs in Denmark, along with progressively tighter rules on the use of antimicrobials in the raising of [livestock](#) since 1995.

Yet tighter rules do not lead to lower productivity. In Denmark, use of antimicrobial agents per kilogram of pork produced is estimated to be less than a fifth of that in the United States, yet Denmark continues to be the world's largest exporter of pork and productivity is now higher than ever before.

Data from Norway also show that improving fish farm management and introducing effective vaccines can reduce the use of antimicrobials more than 20 fold.

"We have major tasks ahead for global containment of resistance, in relation to both veterinary and human medicine," write the authors. "Antimicrobials are too precious to be wasted, and both sectors have plenty of room for improvement."

They conclude: "Substantial reduction of antimicrobial use in livestock is feasible and necessary if we want to preserve the power of [antimicrobials](#) for future generations of both [animals](#) and humans."

Provided by British Medical Journal

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