

Preventing the Emergence of Antimicrobial Resistance among Food-Producing Animals

Dear Editor,

Antimicrobial resistance (AMR) has emerged as one of the major global public health concerns, and it has been predicted that in the absence of immediate measures to combat the same, the time is not far enough when we have to live in a postantibiotic era.^[1] Even though a large number of practices have attributed for the exaggeration of the problem, irrational use of antibiotics in food-producing animals remains the key potential factor for the development of antimicrobial-resistant bacteria.^[1-3]

As a matter of fact, it has been reported that in some of the nations, the use of antibiotics among animals is 4 times more than that in humans, and these are used more for growth promotion and disease prophylaxis and not for treating sick animals.^[3] This practice has led to the development of antimicrobial-resistant bacteria which are then transmitted to humans either through direct contact or through the food chain.^[1,3] Once a human acquires infection from these resistant bacteria, it accounts for prolonged duration of illness, more chances of admission in health-care facilities, no effectiveness of the treatment, increased risk of nosocomial infections, and deaths.^[2,3] In addition, this also accounts for a massive burden on the health-care delivery system and catastrophic financial expenditure.^[2]

The available estimates depict that on an annual basis, 0.4 million people are dying owing to food-borne diseases, and this is an alarming concern for the global leaders and the policy-makers.^[3] To deal with the problem, various steps have been taken such as the formulation of the global action plan on AMR, adoption of One Health approach, and involvement of all the concerned agencies for the better planning and implementation of the decided strategies.^[3] Further, the World Health Organization has also released a new set of guidelines and recommendations to minimize the adverse effects which have been attributed to the indiscriminate use of antibiotics in food-producing animals.^[4]

The first and foremost recommendation is to decrease the use of all antimicrobials as a whole among the animals.^[3] Then, the use of antimicrobials for the purpose of growth

promotion and for the prevention of communicable diseases which have been not clinically confirmed yet has been totally prohibited.^[4] However, their use can be justified only after a veterinary professional anticipates that there is an immense risk of the transmission of disease.^[3] In addition, it has been recommended that as a first line, only those antimicrobials should be used which are not yet used in humans, while the use of other medicines (that are used in humans) in animals should be dependent on the culture and sensitivity results.^[4] The need of the hour is that all these recommendations should be strictly adhered and the policy-makers at national level should take the desired steps for the transmission and implementation of these evidence-based guidelines.^[1-4]

In conclusion, the problem of AMR among food-producing animals has to be dealt in a concerted manner for improving the quality of life of current and future generation of humans.

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