

Antibiotic Resistance: Misuse of Antibiotics in Food Animal Production Threatens Public Health



Introduction

The World Health Organization recently warned that antibiotic resistance could bring about “an end to modern medicine as we know it,” and that “[t]hings as common as strep throat or a child’s scratched knee could once again kill.” Just one of many antibiotic-resistant pathogens, methicillin-resistant *Staphylococcus aureus* (MRSA), causes more than 94,000 invasive infections and kills more than 18,000 people in the U.S. each year.

The evolution of antibiotic resistance is accelerated by antibiotic misuse in food animals. Eighty percent of antibiotics in the U.S. are sold for food-animal use, not to treat sick people. Antibiotics are widely used to compensate for overcrowding and poor sanitation at the industrial operations where most food animals are produced, and to speed animal growth. These practices are eroding the effectiveness of life-saving medicines and fueling a public health crisis. Instead of withdrawing approvals, the FDA has proposed a voluntary process to end antibiotic use to speed animal growth. The agency has refused to release information needed to evaluate this approach, and has ignored antibiotic use to compensate for overcrowding and poor sanitation.

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Key Points

- Misuse of antibiotics in food animals to compensate for overcrowding and poor sanitation and to speed animal growth increases the risk of antibiotic-resistant infections in humans.
- Antibiotics should be used by veterinarians to treat sick animals and, as a last resort, to control disease outbreaks.
- Studies in the U.S. and elsewhere indicate that restricting antibiotic use in food animal production decreases antibiotic resistance without harming production.

Public Health Concerns

- Humans can be exposed to antibiotic-resistant bacteria in food and in the environment. People who work in or live near food animal production and processing facilities are at increased risk.
- Getting treatment for antibiotic-resistant infections is an increasingly vexing challenge for patients: fewer drugs work, and these drugs are often more expensive and can have severe side effects; occasionally, surgical intervention is required.
- Antibiotic resistance costs the U.S. health care system \$16.6-26 billion annually; reducing antibiotic misuse could help lower health care costs.

Policy Options

The FDA should withdraw approvals to use antibiotics to compensate for overcrowding and poor sanitation and to speed animal growth. The Preservation of Antibiotics for Medical Treatment Act (PAMTA) (H.R. 1150), sponsored by Rep. Louise Slaughter, and the Preventing Antibiotic Resistance Act (PARA) (S.1256), sponsored by Sen. Dianne Feinstein, would require the FDA to do so unless drug companies can demonstrate that these uses do not threaten public health.

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Action

- Support legislation like PAMTA and meaningful regulatory action to assure that antibiotics are only used by veterinarians to treat sick animals and, as a last resort, to control disease outbreaks.
- Call on the FDA to release information needed to evaluate its voluntary approach to ending some misuses of antibiotics in food animal production.



Who We Are

Based within the Bloomberg School of Public Health, The Johns Hopkins Center for a Livable Future (CLF) is an academic center that conducts and promotes research and communicates information about the complex inter-relationships among food production, diet, environment and human health.

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