

POSITION STATEMENT

Antimicrobial Resistance Related to Animal Husbandry and Veterinary Medicine

Background

Antimicrobial resistance continues to be a growing problem in Canada and worldwide, partially as a result of inappropriate or overuse of antimicrobials in human medicine, veterinary medicine, and agriculture.¹⁻³ However, any antimicrobial use likely creates some potential for emergence and dissemination of resistance. Methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci (VRE), extended-spectrum beta-lactamase (ESBL)-producing organisms and carbapenemase-producing *Enterobacteriaceae* (CPE) are increasingly common in Canadian health care facilities and community settings, with significant impacts on human health.³ As existing antimicrobials become ineffective to treat infections due to increasing resistance, and fewer new antimicrobials are produced, treatment options become limited or non-existent.^{1,5}

While antimicrobial resistance in human pathogens is largely driven by antimicrobial use in human medicine, it is also influenced by antimicrobial use in veterinary medicine and agriculture, particularly when the same antimicrobial classes are used across various sectors.^{1,4} It is estimated that as much as 80% of all antimicrobials sold in Canada (by volume) are intended for use in animals.⁴ In Canada, recent regulatory changes now restrict antimicrobial use in animals, including the ability of animal owners (both livestock and companion animal) to locally purchase or import medically important antibiotics (MIA) without a prescription from a veterinarian.^{1,5,6}

Although a federal veterinary prescription-only standard of access to MIA is in effect from December 1, 2018, and growth promotion claims have been removed from drug labels, prophylactic use of antimicrobials continues in both animal husbandry and veterinary medicine and is not always warranted.^{1,2,5} Antibiotics should only be used when needed, ensuring that the most appropriate antibiotic is used and at an amount, duration or frequency no longer than necessary to achieve the desired purpose.^{1,2,4-8}

Position Statement

IPAC Canada supports the positions of the College of Veterinarians of Ontario, Canadian Paediatric Society, Pan-Canadian Public Health Network, Canadian Society of Hospital Pharmacists and Canadian Nurses Association, each of which emphasizes and promotes the judicious use of antimicrobials.^{4,7-10} Everyone who has access to antimicrobials, particularly those used in both animals and humans, should ideally aim to reduce the need for antimicrobials by placing an emphasis on infection prevention. If antimicrobials are necessary, antimicrobial stewardship should be practiced when

prescribing and administering antimicrobials, in order to prudently manage their use and preserve antimicrobial effectiveness for both humans and animals.^{2,4,7-10}

Stakeholders

Anyone involved in advocating for, prescribing, dispensing, and/or administering antimicrobials to animals or humans in any setting.

Participants in Development of Position Statement

This position statement was developed by the Board of Directors of IPAC Canada and reviewed by Standards and Guidelines Committee and member consultants:

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Definitions

Antimicrobial Stewardship: As per the Pan-Canadian Public Health Network:

“Antimicrobial stewardship can be thought of as co-ordinated interventions designed to promote, improve, monitor, and evaluate the judicious use of antimicrobials in order to preserve their future effectiveness and promote and protect human health.”⁴

Medically Important Antimicrobials (MIA): As per Health Canada:

“Medically Important Antimicrobials (MIA)” are those classified by Health Canada as being important to the treatment of serious or life-threatening infections in humans, and for which there may be no alternative antimicrobial if these drugs become ineffective due to the development of resistance.⁵

References

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