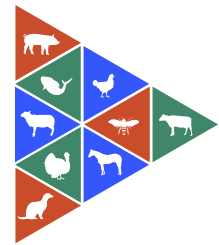


Health Canada Categorization of Antimicrobial Drugs



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FARMED ANIMAL ANTIMICROBIAL
STEWARDSHIP

Veterinarian FAASTsheet 3 of 11

Categorizing Antimicrobial Drugs Based on Importance in Human Medicine

Introduction

Governments around the world have recognized the growing threat that antimicrobials resistance (**AMR**) poses to the ability to treat life-threatening infections in humans.

Many of the same classes of antimicrobials used to treat and prevent infections in human medicine are also used in animals.

While the efficacy of drugs is important, there are some antimicrobials deemed more critical than others, based on being preferred options for treatment of serious infections in humans, and the availability or lack of alternative treatment options.



Criteria for Categorization

Health Canada is responsible for the microbiological safety assessment of veterinary antimicrobials pre- and post-market. When assigning categories to antimicrobial drugs, Health Canada considers the following:

- 1. Indication** – the severity of the bacterial infection, as well as the spectrum of activity of the drug
- 2. Availability of alternative antimicrobial drugs** – where limited alternatives are available, the drug is deemed more critical than an antimicrobial with alternative treatment options

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As of **December 1st, 2018** all medically important antimicrobials will be labeled with 'responsible use' statements. Look out for this symbol on all veterinary drugs containing medically important antimicrobials and be sure to use responsibly!

Table 1. Application of Criteria for Antimicrobial Categorization

Category	Description
I – Very High Importance	<p>These antimicrobials are considered of very high importance in human medicine as they meet the criteria of:</p> <ol style="list-style-type: none"> 1. Being essential for the treatment of serious bacterial infection 2. Limited or no availability of alternative antimicrobials for effective treatment in case of emergence of resistance to these agents.
II – High Importance	<p>Antimicrobials in this category consist of those that can be used to treat a variety of infections including serious infections and for which alternatives are generally available. Bacteria resistant to drugs of this category are generally susceptible to Category I drugs which could be used as the alternatives.</p>
III – Medium Importance	<p>Antimicrobials in this category are used for treatment of bacterial infections for which alternatives are generally available. Infections caused by bacteria resistant to these drugs can, in general, be treated by Category II or I antimicrobials.</p>
IV – Low Importance	<p>Antimicrobials in this category are currently not used in human medicine.</p>

Table 2. Health Canada Classification of Antimicrobial Agents Based on Level of Importance in Human Medicine

Category	Class (example)
<p>Category I Very High Importance</p>	<ul style="list-style-type: none"> • Carbapenems (Imipenem) • Cephalosporins (3rd & 4th gen)(Ceftiofur) • Fluoroquinolones (Enrofloxacin) • Glycopeptides (Vancomycin) • Glycylcyclines • Ketolides • Lipopeptides • Monobactams • Nitroimidazoles (Metronidazole) • Oxazolidinones • Penicillin-β-lactamase inhibitors (Amoxicillin/Clavulanic Acid) • Polymyxin (colistin, polymyxin B) • Therapeutic agents for TB
<p>Category II High Importance</p>	<ul style="list-style-type: none"> • Aminoglycosides (Gentamicin) • Cephalosporins (1st and 2nd gen - Cefapirin) • Fusidic acid • Lincosamides (Lincomycin) • Macrolides (Tulathromycin) • Penicillins • Quinolones (except fluoroquinolones) • Streptogramins (Virginiamycin) • Trimethoprim/sulfamethoxazole
<p>Category III Medium Importance</p>	<ul style="list-style-type: none"> • Aminocyclitols (Streptomycin) • Aminoglycosides • Bacitracins • Fosfomycin • Phenicols (Florfenicol) • Sulphonamides (Sulphathiazole) • Tetracyclines (Oxytetracycline) • Trimethoprim
<p>Category IV Low Importance</p>	<ul style="list-style-type: none"> • Flavophospholipols (Bambermycin) • Ionophores (Monensin)