

THE ANTIMICROBIAL TIME BOMB

Are you part of the problem?

Take the test and find out

Controlling Antimicrobial Resistance – Time is Running Out

Antimicrobials are invaluable health care tools that have substantially improved the well-being and quality of life for humans and animals around the world. Unfortunately, we may not have access to them much longer. When antimicrobials such as penicillin are used to fight bacterial infections, the bacteria develop a resistance with time and repeated exposure rendering treatment ineffective. This harsh reality of these life-saving medications affects everyone who depends on them—and in one way or another, we all depend on them.

Antimicrobial resistance (AMR) has been recognized as a significant threat to international health and security by veterinarians, governments, and livestock producers alike, but fixing the problem is harder than finding it. Controlling antimicrobial resistance and preserving our access to these necessary medications requires the cooperation of all industries and all individuals.

Tighter regulations on production, distribution, and usage are slowly working their way into effect, but regulations are not enough. That's why the Alberta Veterinary Medical Association (ABVMA) has undertaken a public awareness campaign to educate its members, animal owners and the general public about the global issue of AMR and what their roles are in the fight.

Antimicrobial resistance is an issue of One Health, meaning its effects are damaging to humans, animals, and the environment and it will take consideration from every angle to effectively control. Some types of bacterial infections differ between pets, people, and farm animals, but the impact of antimicrobial resistance is felt by all.

Imagine a situation where a serious bacterial infection affecting a large portion of the cattle population became resistant to the available antibiotic treatments. Not only would cattle suffer and die, but their owners would lose their livestock and source of income. This would negatively impact the industry along the entire production chain with significant financial loss at all stages. In addition, the reduction in cattle production could make beef, expensive, or even unavailable to the consumer. No matter where your interests lie, protecting the effectiveness of antimicrobials is in your best interest.

The campaign for public awareness is already underway and will be running until the end of March. We request that you help us to raise awareness on this vital issue and look into our informational resources at <http://bit.ly/amr-stewardship>. For interviews and appearances pertaining to this issue, please contact Dr. Duane Landals, Senior Advisor to the ABVMA. Along with many years of experience running a successful mixed veterinary practice, Dr. Landals has served as Registrar of the ABVMA, President of the Canadian Veterinary Medical Association and Vice-president of the World Veterinary Association.

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Controlling Antimicrobial Resistance – Fact Sheet

Antimicrobial resistance is an inevitability of antimicrobial use. Bacteria develop resistance naturally through evolution.

Controlling antimicrobial resistance is a shared responsibility with shared consequences.

Most antimicrobials are naturally-occurring. Some antimicrobials are produced artificially through chemical process, but most are produced through the fermentation of microorganisms, bacteria, and fungi.

Antimicrobials have been in use as medicine since the 1930s. They are effective against bacterial infections but not viral infections.

The production and distribution of antimicrobials is regulated federally, though the medical professionals responsible for prescribing and dispensing them are regulated under provincial legislation.

Regular vaccinations and other preventative measures are essential to reducing the use of antimicrobial. Proper diet, exercise, biosecurity and hygiene also improve health and reduce the need for antimicrobials.

The only way to be certain that antimicrobials are necessary for treatment is to verify a bacterial infection through diagnostic testing.

Antimicrobials are used in disease therapy, disease prevention, and growth promotion though growth-promoting antimicrobials are currently being phased out of animal feed and water in Canada.

Antimicrobials are invaluable in treating and preventing bacterial infections that may have resulted from common surgeries.

Antimicrobials can be administered in a number of ways including topical ointments, bolus/tablets, feed, injection, intramammary, and water.

One study estimates that by the year 2050 antimicrobial resistance will account for a loss of \$100 trillion in the global GDP and 700 million deaths that would otherwise be avoidable.

For more information, visit <http://bit.ly/amr-stewardship>.