

Antimicrobial resistance: we all have a role to play



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The scientific community is keenly aware that the continued emergence of antimicrobial resistance (AMR) poses a real and significant threat to both human and animal health and wellbeing.

The science of AMR is complex and complicated. As well, the politics involved are equally complex. Tradition

has seen every sector engaged in the debate trying to find a reason to blame someone else for the problem. It is time to get past assigning blame, move out of our silos, and try and find a means of cross-sector collaboration. Every sector in animal and human health has a role to play. It is imperative that we identify the areas we might engage in to ensure the integrity and availability of antimicrobial therapeutic agents for both animals and humans.

In 2011, the World Veterinary Association published a revised policy paper called "WVA Position on Responsible Use of Antimicrobials". This document highlights 12 global principles for the veterinary community to meet in addressing the responsible use of antimicrobials in veterinary practice.

In summary these principles are:

- In cases of animal disease, a veterinarian should examine the animal to make a diagnosis and recommend an effective treatment program
- Antimicrobials used for therapy are health management tools that are licensed for disease treatment, control, and prevention
- Codes of good veterinary practice, quality assurance programs, herd health control, surveillance programs, and education should promote the responsible and prudent use of antimicrobials
- Antimicrobials should be used only with veterinary involvement
- The availability of effective antimicrobials should be based on risk

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- assessment analysis that considers the OIE list of Antimicrobials of Veterinary Importance
- Therapeutic antimicrobials should only be used when it is known or suspected that an infectious agent is present which will be susceptible to therapy. Veterinarians must use their professional judgment in the proper selection of therapy, balancing risks and benefits to humans and animals
- Bacteriological diagnosis with antimicrobial sensitivity testing should be part
 of informed professional judgment when antimicrobial therapy is needed
- Label instructions should be carefully followed
- Antimicrobials used for therapy should be used for as long as needed, over as short a dosage period as possible, and at the appropriate dosage regimen
- Records should be kept of all antimicrobial administration
- Coordinated susceptibility monitoring and surveillance should be conducted and the results provided to the prescribing veterinarian and other relevant parties
- Efficacious, scientifically proven alternatives to antimicrobials are needed as an important part of good husbandry practices

The Alberta Veterinary Medical Association (ABVMA) is the Veterinary Statutory Body responsible for the practice of Veterinary Medicine in Alberta, Canada. As a self-governing body of veterinarians and veterinary technologists, we have accepted a firm commitment to ensure that our members develop practice standards that help maintain the integrity and availability of antimicrobials for use in animals. We have established mandatory guidelines for their use by veterinarians (Council Guidelines for Prescribing, Dispensing, Selling and Compounding Drugs). These guidelines require a veterinarian to:

- Establish medical need before prescribing antimicrobials
- Dispense or oversee dispensing practices and procedures
- Oversee the use of dispensed medications
- Be available for follow up in case of treatment failure or adverse drug reaction
- Maintain detailed records in regard to these activities

Controlling antimicrobial resistance – fact sheet

- Antimicrobial resistance is an inevitable result 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 processes, but most are produced through the action 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 antimicrobials. 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 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

In addition to setting standards for veterinarians, it is important to communicate the concerns about resistance to all parties using antimicrobials, including livestock producers, pet owners, and the public at large. The ABVMA is pleased to have received project funding to enable us to embark on an intensive awareness campaign. The project will deliver educational



material to help prepare veterinarians and animal owners for regulatory and policy changes that are occurring regarding antimicrobial use in animals. It is intended to provide clarification of responsibility and assist veterinarians in communicating this to their clients and the public. Information is available at www.timeisrunningout.ca and www.albertaanimalhealthsource.ca.

The ABVMA believes that antimicrobials are essential to providing good animal health and welfare, and understands that our continued access to these necessary products will only be achieved through responsible use and an ability to verify that we are following best practices.

Transforming your practice by adapting to constant change



By Bernhard Pukay, DVM

If any business is to survive in today's environment, it must be prepared to adapt to never-ending change. Placed within a Darwinian context of "Adapt or Die", the mantra in the modern business environment is "Change or Die." Change means adapting, and adapting is another word for maintaining a competitive edge via value-added services. Unfortunately, 70% of

all change initiatives fail! Failure may be due to lack or loss of focus, an illplanned rush to change, or incorporation of too many changes too quickly.

Over the last century, the nature of business has seen several significant shifts in how business is transacted. Presently, demand for traditional cognitive skills is easing, fewer people are working in the job they're educated for, and college grads are in jobs requiring less brainpower, thanks to computerization. High- and low-skill jobs still remain safe for now. However, *interpersonal skills are increasingly in demand*. This fact underlies the importance of establishing a relationship with your customers. Where once veterinary practice simply meant doing what you were educated to do ("fix" sick animals and make them better), any successful practice must now also establish a relationship with their customer base.

The veterinary profession is currently in the process of undergoing significant change. Some would even argue that the profession is experiencing a radical disruptive kind of change, involving the introduction of new technologies, products, or services that promote changes that eventually replace the existing order of things.

Client expectations are higher than they have ever been and many owners do not see the true value of veterinary services. The public increasingly perceives all vets as equal and all services of equal quality and value. It comes as no surprise then, that in the absence of value the only differentiation between veterinary services becomes price. Paradoxically, this situation is evolving despite increased medical sophistication, readily accessible information, technological advances, and more affluent clients.

To further complicate the picture, the supply of veterinarians is growing faster than pet owner demand. In the U.S., the supply of veterinarians from 1967 to 2007 increased by 48%. It is not surprising then that competition for clients is increasing. More veterinarians are competing for fewer clients, resulting in competition for both client and market share. Veterinary practices are seeing a decline in visits, revenue growth, and absolute revenue.

The response by the veterinary profession to these disruptive changes has been equivocal at best. According to studies by AVMA/Pfizer/Bayer, the use of business strategies by veterinarians actually decreased between 1997-2003. In fact, 62% of veterinarians do not use financial concepts to run their businesses and many fail to review key metrics on a regular basis. With declining profits and decreased visits, the most common tool used by veterinarians to increase profits is to simply increase fees.

Affecting change

According to the *Harvard Business Review*, change can be divided into two kinds:

economic and cultural. Economic change is based on economic value and utilizes a hard, or "cutthroat" approach. Shareholder value is the only measure of success and this form of change makes heavy use of such business tools as economic incentives, layoffs, downsizing, and restructuring. The second kind of change is cultural. Cultural change is based on organizational capability and utilizes the soft, or "nurturing" approach. This method achieves change by developing a corporate culture and a human capability. That is, it utilizes individual and organizational learning involving feedback and adaptation. Cultural change places a high value on employee commitment. A relationship-based or bond-centred veterinary practice, while utilizing economic change to a certain degree, utilizes cultural change by promoting all aspects of the human-animal bond.

Six ways you can change your practice 1. Goals 3. Focus 5. Reward Systems 2. Leadership 4. Process 6. Consultants

1. Goals

When setting goals, an organization that utilizes economic change tries to maximize profits by cost-cutting (maximizing owner value). Conversely, an organization that believes in cultural change tries to maximize profits by developing organizational capabilities such as teamwork and improved client communications. The organization that adapts both styles of change openly recognizes the two differences in approach and combines elements of both.

2. Leadership

Leadership style based on economic value results in management that manages change in the so-called "Top Down" style, while leadership that is based on cultural value manages change by encouraging participation from the "Bottom Up". A leadership style that incorporates both styles of change sets direction and vision from the "top" but actively engages the employees "below" through active participation and contributions (e.g. value statements, policy, etc).

