CVMA’s “Antimicrobials in Animal Health – the New Reality” Summit

NIAGARA FALLS, ON – Traditionally, veterinarians’ primary focus has been on animal health and welfare, but with the increase in antimicrobial resistance (AMR) threatening human and animal health, the focus has shifted. Now, the veterinarian must balance what is best for the animal with what is best for the public interest.

In 2014 the Canadian government released the “Federal Action Plan on Antimicrobial Resistance and Use in Canada”. At the time, the plan was based on three pillars: surveillance, stewardship, and innovation. This document is seen as a starting point for a national collaborative response to the threat of AMR. Clearly, the veterinary profession has a lead role to play in all three pillars when it comes to animal health. Recognizing the need for harmonizing standards of practice for veterinarians, specifically

Common reasons for dermatologic treatment failures

By Charlie C. Pye, BSc, DVM, DVSc, DACVD

When you have a patient that is unresponsive to what you believe is appropriate therapy, you can take steps to find out why the therapy is unsuccessful. First and foremost, the correct dose and frequency of administration must be checked with the owner to verify compliance is not an issue. If the treatment involves topical therapy, you should verify that the correct application and dose has been used.

Reasons for treatment failure

Cytology should always be performed to check for secondary infections in allergic patients with previously controlled pruritus who re-present for pruritus with or without dermatologic lesions. Secondary infections (bacterial pyoderma and Malassezia dermatitis) are common reasons for perceived treatment failure, as

Food allergy in dogs and cats: why and what to do about it

NIAGARA FALLS, ON – Unlike “food allergy” in humans, which is an adverse food reaction involving a clearly demonstrated humoral response, food intolerance is a non-immunologic adverse food reaction. Other food hypersensitivities involve cellular immune responses (mediated by T lymphocytes). The exact mechanisms of food allergy/intolerance are not fully understood in pets. Unlike in people, these reactions can take days to a few weeks to develop. Therefore, the all-encompassing term “cutaneous adverse food reaction” is preferred in veterinary medicine, explained Vincent Defalque, DMV, Dipl. ACVD (Dermatology), presenting at the Canadian Veterinary Medical Association Convention. Cutaneous manifestations (pruritus, otitis, and skin infections) are rarely outgrown.

Causes

A food allergen is a usually a glycoprotein of animal or vegetal origin which can trigger an allergic reaction...
when it comes to antimicrobial stewardship, the Canadian Veterinary Medical Association (CVMA) and the Canadian Council of Veterinary Registrars (CCVR) have developed “Veterinary Oversight of Antimicrobial Use: A Pan-Canadian Framework for Professional Standards for Veterinarians”. The objective is to provide guidance regarding the responsibilities of veterinarians in response to the 2015 Public Health Agency of Canada’s announcement that Health Canada’s Veterinary Drugs Directorate would introduce new federal regulations requiring veterinary oversight of antibiotics used in food animals, including those administered in feed or water.

The goal of the Framework is “To protect Canadians from the health risks related to antimicrobial resistance by providing guidance to provincial and territorial regulatory (licensing) bodies as they develop their own by-laws, policies, and guidelines in accordance with provincial legislation that regulates veterinarians when treating animals.” This includes diagnosing, prescribing, using antimicrobials, dispensing, maintaining medical records, and other stewardship requirements.

During the recent CVMA Convention in Niagara Falls, ON, a Summit on “Antimicrobials in Animal Health – the New Reality” was held to discuss the new AMR Framework, involving representatives from various food animal sectors.

Dr. Troy Bourque, President-Elect of the CVMA, and Past-President of the Alberta Veterinary Medical Association, chaired the Summit, and led with, “The time for being alarmed has passed. Reform will no doubt pose a cultural challenge for practitioners, and stakeholders have legitimate concerns. But we will meet the challenge of educating CVMA members and producer groups about the Framework, and work with stakeholders, so that we do our part as stewards to protect animals and the public from antimicrobial overuse and resistance.”

Dr. Duane Landals, a member of the CVMA Veterinary Pharmaceutical Stewardship Advisory Group, appointed by the CVMA Council to develop a policy framework for review by the Council, echoed this sentiment, saying “Antimicrobial resistance is now the driver of conversation in human and veterinary health. We need to view this as an opportunity to work together as leaders, and to set an example in human and animal health here in Canada and elsewhere.”

Representatives from various stakeholder groups presented their feedback, outlined here, which will align the finalization of the document to be completed before the federal regulations are in effect at the end of 2017.

Dr. Landals discussed the Framework and the importance of stewardship, asking the question: “Who provides oversight to veterinarians?” Since all veterinarians are licensed provincially, there are gaps nationally that will need to be addressed. He spoke about the necessity of eliminating unnecessary antimicrobial use, improving standards of use when these drugs are necessary, improving animal health to reduce the need for antimicrobials, and increasing public confidence, all while maintaining access to essential animal health medications.

He stressed that the veterinary practitioner’s role is to use professional judgment when deciding whether a drug is necessary, and to provide directions for its use, its dose, duration, how it is administered, stored, and used after distribution. All of this should be documented in accessible medical records.

Dr. John Prescott, Co-Chair of the Ad-hoc Committee for Antimicrobial Stewardship in Canadian Agriculture and Veterinary Medicine, said the primary focus in agriculture will be to reduce the use of antimicrobials, and to demonstrate that they are being used responsibly and wisely, where the benefits are clear and substantial. An electronic benchmarking system will be needed to document their use and to track trends, and help educate colleagues by demonstrating that reducing the use of antimicrobials can be both medically and fiscally viable.

Dr. Teresa Tam, Deputy Chief Health Officer/Assistant Deputy Minister, Infectious Disease Prevention and Control, Public Health Agency of Canada, said that in Canada, 20,000 hospital patients contract AMR infections each year, and 10 million lives are lost each year globally. Since no one wants to return to the pre-antibiotic era, surveillance, stewardship, and innovation require a global “One Health” approach.

Currently, Canada is in the “middle of the pack” internationally when it comes to antimicrobial use (the Scandinavian countries have a much lower rate of use), but Canada is one of the leading countries in reducing AMR, and is becoming more engaged in international efforts. She said, “The Framework is just that, and now we have to do the work to collaborate across all sectors because if we don’t, by 2050 one person will die of an AMR illness every three seconds.” She stressed that veterinary practitioners are in an ideal position to take leadership by virtue of their education, experience, and accountability to the public. They are qualified to serve the public interest by providing for the health care needs of animals, while considering the potential impacts on human lives as well.

Dr. Manisha Mehrotra, Director, Human Safety Division, Veterinary Drugs Directorate, Health Canada, covered five policy and regulatory initiatives outlined in the Framework, and stressed the need for continued engagement by all stakeholders:

1. Removing growth promotion claims from medically important antimicrobials, which implicate approximately 64 products. She said there is a lack of current data to show these products are effective at appropriate dosages.
2. Increasing veterinary oversight over all antimicrobials. This may involve moving all over-the-counter products to existing prescription drug distribution channels. This includes approximately 300 products that will need a prescription. In order to create a seamless transition, the appropriate people will need to be engaged to create uniform rules regarding who can dispense what drug.
3. Increasing oversight for imported veterinary drugs will require prohibiting unapproved drugs from being imported for use in animals consumed as food, with the exception of specific drug products. Veterinarians would need a license when importing a product on the banned list.
4. Facilitating access to low-risk veterinary health products as additional tools for maintaining animal and health welfare. Regulatory amendments would have to be developed to create a risk-based regulatory pathway for importing and using alternative medicines (e.g., homeopathy).
5. Annual mandatory reporting of drug dosages that contain an antimicrobial, to support antimicrobial use surveillance.

As well, practitioners need to engage with clients on health and management strategies (e.g., vaccination, pre-weaning, housing) to reduce the use of antimicrobials, and to consider the importance of the product in human health before deciding on a specific course of treatment.

Dr. Phil Buote, who is with the Canadian Council of Veterinary Registrants, discussed the need to expand the provincial and territorial regulatory boards via a compliance approach so that the interests of the public are protected. He stressed the desirability of national, rather than provincial, uniformity of professional standards. He questioned whether new legislation will be needed, and how client confidentiality will be handled. With regard to noncompliance, he suggests providing avenues for advice and education rather than disciplinary action.

Dr. Germain Nappert, a member of the Canadian Association of Bovine Veterinarians, said currently Quebec bovine farmers use the same billing software to record drug use. Their provincial regulatory body holds the software, but other provinces may use other systems, making national surveillance a challenge. There is need for an application to privately assess and share information to track outbreaks (e.g., location of origin, how to treat, and how to alert the public), and he supports collaborating with the Canadian Animal Health Surveillance Network.

Dr. Maurice Smith, representing the Canadian Association of Poultry Veterinarians, and Dr. Gregory Wideman of the Canadian Association of Swine Veterinarians, said their groups recommend respecting the autonomy of the respective licensing boards, but stressed the importance of being part of the licensing, training, and verification process. They also want to ensure that the veterinary client patient relationship (VCPR) is current and consistent across all boards.

They want to see the CVMA and CCVR work together to develop a regularly updated cascade decision model for antimicrobial use, which can be more easily applied at the farm system level than the premise/batch level. National surveillance is one area they say they is deficient in comparison with some other competitor trading countries. Monitoring sales from the veterinarian or feed company is a more rational and accurate way to monitor antimicrobial use than from the farmer. They are concerned about the
increased burden of record keeping, which may make it difficult for them to compete internationally.

They would like antimicrobial use and surveillance incorporated as continuing education in veterinary schools, as well as the development of topic or species experts, which is currently lacking in the poultry and swine industries.

Finally, they would like the CVMA to endorse and facilitate the use of electronic prescriptions, due to the difficulty of updating medical records in a timely manner while travelling farm to farm.

Mr. Rob McNabb, Chair of the National Farm Animal Health and Welfare Council, reiterated that food animal veterinarians are on the frontline of reducing the need and overuse of antimicrobials, and adoption of the Framework items will require leadership and support. He said that the Council’s work is very much aligned with the federal action plan and the CVMA’s Framework document.

Dr. Egan Brockhoff, of the Chicken Farmers of Canada and Canadian Pork Council, said that the pork industry is worth $24 billion in Canada, making it the fourth largest agricultural commodity in Canada. Since most producers have pigs in various provinces, legislation should include allowance for mobility provincially. There is need for professional standards and consistency in the veterinarian-client relationship, and with medical and dispensing records, as pigs move from province to province.

Access to swine veterinarians is also a concern because there are currently very few in Canada, and very little education and focus in this area is provided in veterinary schools. He questioned whether there will be more reliance on foreign-trained veterinarians, and challenged the audience to consider who will write the prescriptions with so few experts available.

He also wonders what the cost to the swine industry will be to incorporate the changes, saying that it is a very competitive industry, and they must stay in sync with the U.S., their main competitor.

Other concerns raised by participants included ensuring that the Framework works in conjunction with feed mills, which are already highly regulated; creating national biosecurity education for the various producers; and creating solutions collectively to engage and include niche industries, like beekeeping, aquaculture, and backyard breeding, so that they can make educated decisions and ensure compliance. CV

Next steps

- Widely distribute the Framework to stakeholders
- Validate suggested standards of practice to veterinarians
- Re-draft as needed
- Encourage provincial boards to implement the proposals
- Look at issues not yet addressed (e.g., distribution, federal and provincial legislation, and surveillance of antimicrobial use, inclusion of niche industries)

Improve public confidence, acceptance, and adoption of principles by industry

Dermatologic treatment continued from page 1

they mask the full effects of therapy and patients require higher doses of glucocorticoids and anti-inflammatories to control pruritus and inflammation. Demodecosis or other ectoparasites must also be ruled out via skin scrapings, as they can lead to a worsening of clinical signs in a previously stable patient. An animal that becomes immunocompromised or is receiving high doses of glucocorticoids can develop demodecosis.

The incidence of methicillin-resistant *Staphylococcus pseudintermedius* (MRSP) has increased dramatically over the past several years. Any animal with a bacterial pyoderma not responding to an appropriate dose and selection of antibiotic should have an aerobic bacterial culture performed. An aerobic bacterial culture should also be performed if a patient has been on an appropriate antibiotic for 3-4 weeks and continues to have lesions consistent with a bacterial pyoderma and bacteria noted on skin cytology.

Medication doses and length of treatment should also be reviewed when dealing with treatment failure. For example, an animal receiving glucocorticoids for atopic dermatitis may present for non-pruritic hair loss presumed to be due to its allergic skin disease, when in fact the hair loss may be due to the long-term use of glucocorticoids and not the atopic disease.

**Approach to treatment failure**

Treatment failure is most often reported when there is a lack of response to glucocorticoids or cyclosporine in a presumed atopic dog. In these cases, there could be an underlying food allergy, and therefore an adequate novel protein (or hydrolyzed diet) restricted diet trial should be performed. The owner must be informed that no treats, table scraps, pilling vehicles, or flavoured medications can be used during the diet trial. The diet trial should involve a diet with a novel protein that the animal has not been exposed to previously and should last for 8-12 weeks to determine whether an improvement is noted.

Cutaneous adverse drug eruptions can lead to a worsening of clinical signs. For example, a dog with a secondary bacterial pyoderma due to allergic skin disease receives a cephalosporin antibiotic and then develops further dermatologic lesions consisting of erythema, alopecia etc. This animal...