WEST COAST VETERINARIAN

MARCH 2022 | Nº 46

DENTISTRY FOR BRACHYCEPHALIC BREEDS

+

CANINE FEAR IN THE VETERINARY CLINIC

URINARY TRACT INFECTIONS: WHAT YOU SHOULD KNOW

FROM A LAWYER: COVID-19 SAFETY PLANS

A RECIPE FOR TRUST

RAISING AWARENESS ABOUT EXTREME BREEDS

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COREY VAN'T HAAFF
EDITOR

Each time I find a few moments to write this editor's message, I cannot help but look at my own animals and interactions with BC veterinarians. But over the past few months, these experiences have been the most intense for me.

Our German Shepherd headed in for an MRI among other tests when we couldn't quite figure out why she was showing such significantly impaired mobility along with head tilting and swinging. We've had a dog with vestibular disease before, but this was different. After seeing a bit of a decline over several days, we knew we could not make quality-of-life decisions without knowing whether something was wrong or really wrong.

This was followed by our cat heading in for an abdominal ultrasound. We needed to be sure something else wasn't at play as we tried treating his new thyroid disease and found the test results swung from too high to too low every two weeks.

At least our wee Chihuahua was doing well—until she wasn't. One sick day was followed by a second, and on the third day we took her to the veterinarian where it was agreed that she was very sick. Some intravenous fluids and antibiotics for her fever and other symptoms saw her rallying. The next day, just to be sure, we headed in for an ultrasound and received the worst news: a confident diagnosis of liver cancer. Then, a week later a likely diagnosis of iris cancer.

So, here we are, at the few moments I have set aside to write my message. In these few weeks, we've had Ella's eye removed with a non-malignant diagnosis (whew). A repeat ultrasound shows some shrinking, however slight, in the liver mass, and we've seen an oncologist and have a satisfactory game plan. I sympathize fully with every animal owner who gets bad news and has to make hard decisions. It is the worst place to be.

But my work day is spent serving veterinarians, and I cannot help but wonder about each veterinarian these past few months who has had to start their consult with me by saying, "I have some very bad news." Explaining things to me I really don't understand. Watching me sob and apologizing that they cannot hug me because of COVID. Seeing me leave the practice holding my beloved dog so tight but leaving without the same hope I had when I first entered the building.

My dogs and cat, at this writing, are all still alive and I think happy. My love for my dogs likely eclipses all other loves in my life, but my continued awe at the strength of these veterinarians who must touch and poke and prod and examine animals in various states of health, then do invasive testing that hurts, and then deliver terrible news continues to grow. I see you through my tears, and I wonder how you carry the heavy load.

I asked one of my trusted veterinarian friends about end-of-life euthanasia. I said it must be so terrible to see people come in with sick animals who've reached the ends of their lifetimes and administer that final injection that will end those animals' lives forever. I said I could not fully understand how heavy that burden is. My friend surprised me by saying they never saw it that way. They always saw it as a blessing to be able to relieve distress and suffering, and felt that it was a privilege to help people and animals through that. Then they said that grief is the cost of love, but it is worth it a million times over.

At least a million, I say. But I add that if grief is the cost of love, veterinarians are the ones who help us love our pets as well and as long as possible. WCV

Email: wcveditor@gmail.com

TO THE EDITOR

Letters from members are welcome. They may be edited for length and clarity. Email us at wcveditor@gmail.com.

ON THE COVER

Malocclusion class 3, gingival overgrowth, and periodontal disease are common dental pathologies that affect brachycephalic breeds. Photo courtesy Adriana Regalado.

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WEST COAST VETERINARIAN

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LETTER TO THE EDITOR

VOLUNTEERISM: EVERYBODY WINS

We rarely publicly celebrate the immense contributions of our volunteers (though not a week goes by without us marvelling at their generosity and feeling deep gratitude). Every one of our volunteers gives what they can to help with committees, boards, or consultations, and trust me, these veterinarian volunteers deliver in amazing ways. It seems impossible to mention just one, and we thank each and every one of you for helping the SBCV be of great service to BC veterinarians.

We received the following letter from a volunteer who, sadly, is leaving the province, but before she left, she shared what volunteering gave back to her. Thank you, Dr. Welsman for your letter expressing what you got from your volunteer work with the SBCV.

DEAR EDITOR

I was sitting here looking at all the articles I've written and thinking about all the cool people I've met and all of the interesting things I've done to write an article. I rode along with a Vancouver police dog handler to highlight their work at the Stanley Cup riots. I spent a day at the Douglas Lake Ranch, and I felt as if I had stepped back in time to a different way of life. I sat in on the predator attack recognition course offered by the Conservation Officer Service while I lived in Clinton, and although I recall feeling like I stuck out like a sore thumb, what a great learning experience. I spent a day with several RCMP dog handlers to understand their dogs better. Then there was the bird article about the sanctuary on Vancouver Island that closed and Dr. Anne McDonald spending her own money and energy saving those birds. That article left me truly in awe of her work and what her legacy will be to avian medicine in Canada.

I wrote about my personal experiences more often than not, which could be the hardest ones to write. When I was involved in the case where the dog killed a person last year, that ripped open the emotions of that day. I realize now that when I wrote about mental health in our profession, I was only dipping my toe into how bad things can get, and I wonder what I would write now. Then there was my ringworm saga and the article I wrote about it— an experience I would rather not repeat! My articles about Langley Animal Protection Society highlighted some of the best work of shelters, and I was lucky to be involved on the board of that shelter. My most recent article about service dogs was also emotional, especially speaking to service dog owner Stéphane about his life and PTSD. Being able to speak to veterinarians who deal with wildlife rehab and caribou health was enlightening. Interviewing specialists and veterinarians with unique interests, as well as lawyers, media people, and human doctors, have all been a part of my journey with West Coast Veterinarian.

I think the article that stands out the most to me is the one about the summer of 2017 wildfires. Once again I was writing from my point of view but interviewing the folks around me as we all relived the summer from hell. Little did I know that the summer of 2017 would be repeated last summer.

Anyway, these are the musings of someone who has written over 20 articles in the past 12 years . . . don't think this is the end of me writing for you, but it's definitely the closing of a chapter.

—Dr. Kathryn Welsman

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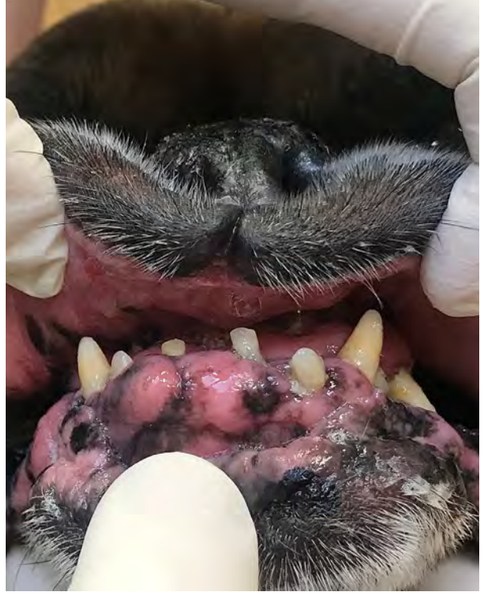

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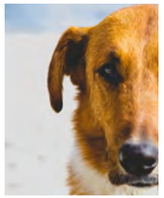

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A RECIPE FOR TRUST

We have started another new year, but it doesn't feel much different. Last year was an astounding year of challenges in so many ways. When I think about 2021, what comes to mind is all described by "F" words.

Fires: The number of wildfires and the atrocious damage was catastrophic. The images of the destruction were truly shocking. The town of Lytton being totally destroyed is disastrous. I think about the people who have lost everything and wonder how I would cope with such an event. I also think about the many firefighters who worked endlessly to control the fires.

Floods: Last year we learned some new weather language. I had not heard of atmospheric rivers or weather bombs before. But did we ever feel these events. The flooding in so many areas was another litany of shocking disaster. The suffering of all those people with flooded property and also the thousands of animals who were caught in the disaster will take years to overcome.

In both of these terrible happenings, it was a measure of human resilience that volunteers came from far and wide to help in any way they could. We worked with the CVBC to collect names of veterinarians willing to help. When it comes down to it, our society is generally one of helping those who need it.

Freezing: Late in the year, we were hit with yet another challenge of unprecedentedly cold weather in BC's coastal areas. Although the snow was beautiful to look at, it also brings with it inconveniences and concerns when we have to travel by foot or vehicle or if the snow brings down trees over power lines, leaving homes and businesses without power.

Frustration: Yet another year has gone by, and we have not been able to get a meeting with the Minister of Advanced Education and Skills Training to discuss our veterinary shortage. The minister claims that she opened up 10 more seats at WCVM, but nobody can find where they are. She also did not know the name of our veterinary college. It continues to frustrate your board, but we will keep the pressure on the government. We have not given up our pursuit of more seats. Unfortunately, the government only had until March 1 to add more seats for the class starting this fall under the inter-provincial agreement.

The last "F" word on my list is "fortunate." My family and I were fortunate that we were minimally affected by the fires, floods, and freezing weather. Our inconveniences from these terrible events were nothing compared to the devastation endured by so many people and animals.

I am also fortunate to be a part of a wonderful profession that cares for animals and the people who look after them. We have been working diligently over the past years with the changes demanded by COVID-19. I wish to thank you all for your devotion to your patients and their guardians. I also thank our wonderful staff at the CVMA-SBCV Chapter, headed by our executive director Corey Van't Haaff, for their hard work supporting BC veterinarians throughout another challenging year.

What am I most looking forward to this year? How about meetings in person rather than on Zoom? How about walking around and greeting people and seeing the smiles that have been buried under cover for two years? Let us hope we can get a handle on things so we can do the things we have missed and see more of our families and friends.

Thank you for joining the SBCV. We have been working hard to provide more services to you and offer excellent CE while keeping costs down. Please let us know if you have any ideas or concerns. Take the time to review *West Coast Veterinarian* magazine; it will keep you up to date on what we are doing and is filled with interesting articles by and about your fellow veterinarians. WCV

Al Longair, BSc, DVM, graduated from the Western College of Veterinary Medicine in 1977. After graduation, he joined a mixed animal practice in Duncan, focusing on small animal practice from 1981 on. He has been involved with the BC SPCA for over 20 years, serving as the president of his local branch for 12 years and on the provincial management committee for 10 years, with four years as president. In the early 1990s, he served as chair of the CVMA Animal Welfare Committee. He lives on a small acreage with his wife, three horses, three dogs, and two cats and coaches youth soccer in his spare time.

As your CVMA president, it is my pleasure to update you on some of the CVMA's initiatives.

NATIONAL TICK AWARENESS MONTH 2022 ENCOURAGES A ONE HEALTH APPROACH

The concept of One Health will be front and centre during National Tick Awareness Month, taking place in March. As part of this year's campaign, the CVMA, in partnership with Merck Animal Health, will highlight the important role veterinarians play in helping protect pets and people. In 2020, the campaign focused on when ticks are active, emphasizing the unique seasonality of ticks and highlighting the fact that tick activity can occur when temperatures reach four degrees Celsius and above. The 2021 campaign went on to address where ticks are in Canada, examining the locations where ticks can be found and the expansion of tick risk areas in our country. The upcoming campaign will share how pet owners can protect their pets and themselves against these parasites, with messaging centred on this year's tagline, "Things that ticks don't want your family to know." Encourage your clients to visit TickTalkCanada.com, an educational website for Canadian pet owners. Access to National Tick Awareness Month resources and information about our annual webinar is available at canadianveterinarians.net/practice-economics/practice-tools-national-tick-awareness-month.

NATIONAL BASELINE SURVEY OF TICK-BORNE DISEASE AWARENESS

The CVMA received funding via a directed solicitation from the Infectious Diseases and Climate Change Fund of the Public Health Agency of Canada to conduct three surveys focusing on the following groups:

- Veterinarians practising in Canada
- Pet owners
- Hunters and anglers

The surveys will access baseline knowledge of tick awareness and tick-borne diseases in Canada. The surveys are expected to launch in early 2022, with results available in March during National Tick Awareness Month.

VETERINARY WORKFORCE SHORTAGE—TIME FOR ACTION

The CVMA committed to investing $200,000 over the next 12 months to address the veterinary workforce shortage in Canada. The CVMA will invite provincial veterinary medical associations, regulatory bodies, veterinary college deans, veterinary technicians and technologists, and representatives from federal and provincial governments to a Veterinary Workforce Congress (planned for May 2022) with the objective of identifying and coordinating plans and actions on addressing the workforce shortage. The CVMA believes the veterinary workforce shortage is one of the primary challenges facing our profession today and believes we need a national, focused, collaborative effort to make a difference across the country. WCV

Louis Kwantes, MSc, DVM, was born in Michigan and raised in Japan. He now lives Sherwood Park, Alberta, and has for the past 28 years. His graduated from Ontario Veterinary College in 1987 and completed an MSc in Tropical Veterinary Medicine at the University of Edinburgh in 1989. Dr. Kwantes's professional background includes mixed animal practice in Ontario and overseas veterinary postings in Haiti, Uzbekistan, and the Middle East. He is presently at National Veterinary Associates at Park Veterinary Centre, a companion and exotic animal veterinary clinic he co-founded in 1997. He is a past board member of the Edmonton Veterinary Emergency Clinic, past president of the Edmonton Area Small Animal Veterinarians group, and served the Alberta Veterinary Medical Association for over 12 years in a variety of capacities, including as president in 2015. Dr. Kwantes was presented a CVMA award for scholarship and leadership in 1987, shared the CVMA Hill's Public Relations Award in 2006, and was awarded a Rotary Integrity Award in 2015. He is grateful to have represented colleagues as executive member of the CVMA's Executive Committee the past few years and is excited to serve as the 2021–2022 CVMA president. Together with his wife, Janet, he is now an empty nester, save for a spoiled cat. Dr. Kwantes still loves working with animals and people and feels honoured to share in the bond between pets and their caretakers.

CLASS OF 2024:
CHALLENGED AND CHANGED BY COVID-19

BY RUTH PATTEN, BSc, MSc *(Ruth is filling in for Madison Audeau on this issue)*

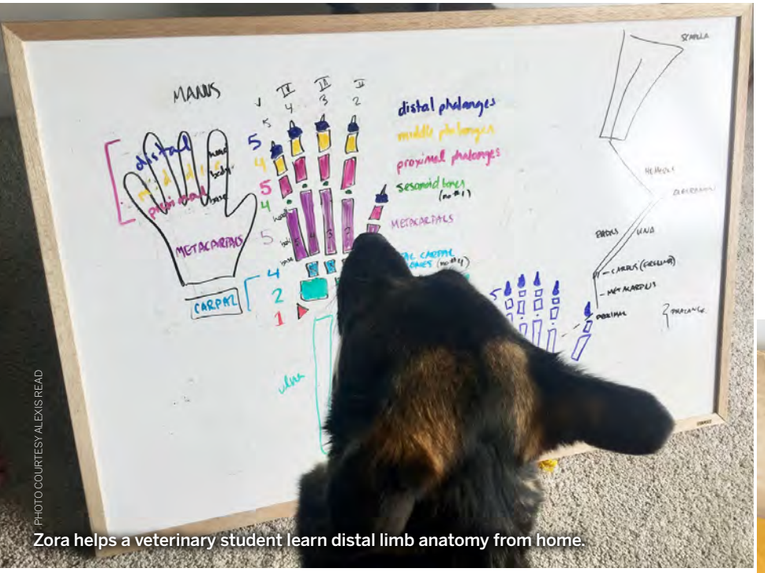


PHOTO COURTESY ALEXIS READ

Zora helps a veterinary student learn distal limb anatomy from home.

"WHEN WE DID COME TOGETHER, WE WERE SO MUCH MORE APPRECIATIVE OF WHAT OTHER STUDENTS COULD OFFER."

PHOTO COURTESY RUTH PATTEN

Luna willingly submits to routine palpation exercises from the comfort of home.

PHOTO COURTESY KATCHEEF MOON-RILEY

Maui keeps a veterinary student company while at home studying.

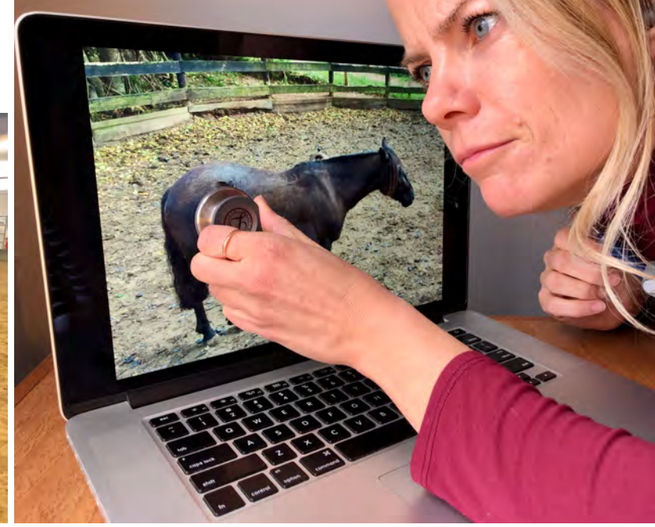
When I first got my acceptance letter for WCVM's fall 2020 semester, COVID-19 was the farthest thing from my mind. In fact, it hadn't yet become anything on the world scale at that time. Veterinary school was fast approaching, and my head was filled with the dream of coming to a school where I would be trained to be a superhero to animals—an animal doctor, a horse helper, a veterinarian. And now that I am halfway through my second year of the four-year program that began remotely, it's already becoming apparent, despite the struggles, how much of a positive impact COVID has had on that training process. Let me explain.

For many of us, COVID has become almost a byword for disappointment, cancelled plans, and unwanted change. And although this holds true even here at veterinary school, I want to speak of how that unwanted change brought about by COVID has caused a remarkably different kind of veterinary student experience and a different type of future veterinarian that will emerge from my class of 2024.

For my class more than any before us, our entire experience at the WCVM has involved some aspect of serious change—radical changes, small changes, changes from yesterday, and changes before tomorrow. We are continually briefed on plans that never come to pass, and we are being prepared for events that—ready or not—are coming our way. When I reflect on how becoming "COVID veterinarians" has affected us, I feel that our ability to change is part of the story we will take with us out of our educational experience.

PHOTOS COURTESY RUTH PATTEN

Learning during the pandemic takes many forms.



For many of us, these changes have come at a high cost, whether that cost be financial with the newly implemented unsupported Canadian seats, emotional changes from delayed or forgone plans with loved ones, or academic changes in embarking upon a whole new educational journey in which we work "remotely together" but relatively alone. But I feel our ability to change and to keep changing is quickly becoming our class's legacy, and this specific perspective is what we are going to bring into our future careers as veterinarians.

The veterinary profession is already a unique gig that calls for an adventurous spirit with an unrelenting need to get to the bottom of things, the willingness to be flexible with changes in your patient's health, and the ability to adapt your skill set to another species or procedure as needed. It is a profession where, regardless of the pandemic, I feel that we are continually confronted with an imperfect reality.

The change that I have already seen in myself and in my classmates encourages me to view our COVID-inspired education as an early preparation for how certain situations truly are outside of our control, and how we can still choose to do our best. And this is why I think we will be even better veterinarians as a result of COVID.

I asked some of my classmates about the strategies they used to rise to the challenge of independent study and remote learning.

Andrea Kinnear said, "I think one of the main things that I learned during COVID was just to take ownership over my education. If labs were going to be shorter, that meant I had to come more prepared to get the most out of the time we did have. If less in person times were available for animal anatomy, then that meant I had to spend more time utilizing online 3D resources. It wasn't ideal, but I do think that there is a mental maturation that happened because of these challenges that will serve to make me a better veterinarian because of it."

Kaitlyn Haubrich said, "Everyone keeps saying how resilient and flexible medical practitioners need to be, and our class has already learned how to adapt in multiple different learning forms and handle different exam anxieties. I think our class will be exceptionally open-minded in practice and will only grow from having such an unusual vet school experience."

Another classmate mentioned how COVID changed her perspective on working with classmates. She felt that the competitive edge was taken away because we were all alone for the first year, and when we did come together, we were so much more appreciative of what other students could offer from their experience and knowledge base. Still another classmate reflected on the challenging learning curve of connecting with others remotely through COVID and how this taught them ways to establish a connection other than in person.

Our class rose to the challenge of meeting COVID limitations in new and creative ways. Kaylyn Kubes sourced animal hearts meant for food so that classmates affected by quarantine measures could use them for dissection procedures at home. Home learning strategies took on many different forms, with students learning by DIY proxies such as the "coffee-cup distal limb" for equine nerve blocks or using household objects as stand-ins for bones. Although these were not conventionally ideal, the experience allowed us to customize our learning experience in ways that will stick with us for life.

So what can I hope to expect for the rest of my time as a veterinary student during an ongoing pandemic? I expect us to be in a state of continual change for a while as we sort out the next steps for our school and also for clinics offering veterinary services moving forward. One thing I do know is that we each have the choice to adapt to this kind of change. And if this pandemic has marked our experience here in veterinary school in any way, it has given us a defiant commitment to learning—a commitment I am proud our class wears and one that I hope we will each carry into our future professional life. WCV

Ruth Patten, BSc, MSc, WCVM class of 2024, is from Kelowna, BC. She completed her BSc with honours in Biology at St. Francis Xavier University and her Master of Equine Behaviour at the Universidade Federal de Pelotas in Brazil before coming to the WCVM. She looks forward to staying in Canada as a mixed animal veterinarian after graduation.

EXTREME CONFORMATION
WHAT'S THE SBCV TO DO?

BY CLARE TOMPKINS, BSc, DVM

We veterinarians take our responsibility to restore and maintain the health status of all of our patients seriously. It is our oath, our ethos, our *raison d'être*, and many times our joy and satisfaction.

Or is it?

Do we prescribe medications to alleviate the symptoms of tracheal collapse in a Yorkie but giggle at the "cute" snuffling snores of a Pug? Do we promote the use of NSAIDs to improve the mobility of an old Labrador but laugh at the corkscrew tail of a Bulldog? Do we eventually stop sighing and give up when owners respond to a painful health issue we just pointed out by stating it is "normal for the breed"?

Who speaks for that Pug struggling to breathe every single day of their life? Or for that Bulldog with repeated episodes of back pain due to a malformed spine? Or that Persian cat or Pug dog with years of ocular pain due to unaddressed entropion or ulcers?

"WHO SPEAKS FOR THAT PUG STRUGGLING TO BREATHE EVERY SINGLE DAY OF THEIR LIFE?"

Would we support the purposeful breeding of a Labrador or Golden Retriever with elbow dysplasia to produce a slow-walking companion dog even though we know the dogs would be in pain for most of their lives? No, of course not. And yet we, the veterinarians, the animal advocates, could do more to educate and prevent the breeding of dogs and cats with extreme conformation who will have physical struggles during their lives.

What exactly can an individual veterinarian or clinic do when faced with the popularity of these breeds?

The first and easiest step is to eliminate breeds with extreme characteristics from all advertisements, social media posts, and clinic educational posters and pamphlets. Portraying these breeds as cute or humorous in marketing campaigns has the unintended effect of increasing the popularity of the breed, which perpetuates an increased demand for the breed. Normalizing the appearance of these animals makes owners less likely to realize the significant health concerns many of these animals have, and makes owners more likely to assume that the animal's poor health is normal.

Take a tour around your clinic and see if you too are normalizing these breeds by inadvertently promoting them on your walls. Have a contest for your staff to see who can find the most examples of extreme breeds and replace them with healthy pet portrayals.

Second, educate yourself and become part of a united veterinary voice. See the sidebar for resources from the British and Australian Veterinary Associations to help veterinarians raise awareness and start discussions with clients on this topic.

RESOURCES TO HELP RAISE AWARENESS ABOUT EXTREME BREEDS

BVA Breed to Breathe campaign:
https://www.bva.co.uk/take-action/breed-to-breathe-campaign

Australian Love Is Blind campaign:
https://www.ava.com.au/love-is-blind

Australian brachycephalic breeding policy:
https://www.ava.com.au/policy-advocacy/policies/companion-animals-commercial-activities/brachycephalic-dog-breeding

Vets Against Brachycephalism:
https://vetsagainstbrachycephalism.com

International Partnership for Dogs site:
https://dogwellnet.com

BVA template letter for responding to advertisements featuring extreme breeds:
https://www.bva.co.uk/media/3096/brachy-letter-template.pdf

BVA advertising guidelines:
https://www.bva.co.uk/resources-support/ethical-guidance/advertising-guidelines-pets-in-advertising-a-social-concern

IMAGE COURTESY CLARE TOMPKINS

FIGURE 1: A checklist for actions that a veterinary clinic can take to educate pet owners about healthy breeds.

Approach companies who use breeds of extreme conformation in their advertisements and ask them to replace their images with healthy pets. Advertising has the power to promote messages that encourage responsible pet ownership and positive animal health and welfare outcomes, even while promoting unrelated products or issues, such as good dental health.

More challenging is the third step, that of speaking to clients who may not be aware of the struggles their own pet has with daily life. Obviously, one has to be tactful when discussing health concerns with the owner of a breed at risk. The sites referenced in this article have many suggestions including starting the conversation at puppy vaccine appointments to make the owner aware of methods to help their dog be more comfortable, such as keeping an appropriate body condition score. Review danger signs to be aware of so that they can seek urgent veterinary care when it is needed. Recommend harnesses versus collars and give warm weather advice for brachycephalic dogs. Instituting annual exercise tolerance tests or functionality tests for all breeds would be non-discriminatory but highlight the appropriate functionality of a properly proportioned working breed such as the Border Collie compared to many extreme breeds. Document each and every abnormality in the medical record at every exam instead of mentally discounting them with the phrase "normal for breed." We cannot plan to change those things that have not even been initially measured and recorded.

What is to be gained by these changes? Better sleep for future dogs with less extreme conformation as well as better sleep for veterinarians who speak up and advocate for those we truly represent and who cannot express themselves. WCV

"NORMALIZING THE APPEARANCE OF THESE ANIMALS MAKES OWNERS LESS LIKELY TO REALIZE THE SIGNIFICANT HEALTH CONCERNS MANY OF THESE ANIMALS HAVE."

Editor's note: The SBCV has begun an awareness campaign to educate those using images of extreme conformation in their advertising materials. Should SBCV members come across such ads either in print, social media, TV, video, or elsewhere, kindly send us a link to the ad/promotional material or a screen shot, and we will review it and send a personalized letter providing education and awareness about this topic.

ADULT DOGS: CANINE FEAR IN THE VETERINARY CLINIC

"A Year in the Life" is a four-part column written by one veterinary specialist about one topic that has four distinct life phases. Through the course of the year, each instalment highlights how this topic affects animals at a certain life stage and what veterinarians should know about how to treat it. This year's focus is dog behaviour.

BY KAREN VAN HAAFTEN, DVM, DACVB

A common and frustrating problem for clients and veterinarians is fear of the veterinary clinic. This problem usually presents in early adulthood, although it can occur at any age. Often clients will report that their dog was excited about the car ride but began to show fearful behaviour when they saw the veterinary clinic, or when they realized where they were going. Other times, a particular aspect of the appointment room may trigger fearful responses, such as coming into contact with a metal examination table, or starting a nail trim.

Addressing fear-related behaviours at the veterinary clinic will allow patients and clients to feel more comfortable seeking veterinary care. Fearful animals are more likely to use aggressive behaviour to repel perceived threats, putting veterinarians, staff, and sometimes owners in danger. Significant fear can interfere with some clinical assessments, such as diagnosing pain, due to the analgesic effects of norepinephrine, or with examinations that require patient compliance (orthopedic or ophthalmic exams).

RECOGNIZING FEAR BEHAVIOURS

Recognizing fearful behaviours and body language is a skill that can be developed. The vast majority of dogs will show signs of discomfort before they escalate to defensive behaviours, but these signs can be subtle, and are often not recognized by owners and veterinary staff.

Common signs of fear in dogs include shaking, whale eye, pulled-back ears, tucked tail, crouched or hunched posture, pupil dilation, urination, escape behaviour, and/or aggressive behaviour. The resources listed at the end of the article can help train veterinarians and veterinary staff to recognize early signs of fear in dogs.

CAUSE

It's not hard to understand why many dogs become fearful at the veterinary clinic. Veterinary exams and treatments can be invasive or uncomfortable for dogs. Dogs are likely to encounter novel and potentially aversive experiences at the veterinary clinic, from cold, slippery exam tables to abdominal palpations or nail trims.

Lack of predictability and control are common triggers for anxiety, and at the veterinary clinic, dogs aren't always given choices about who they interact with, or where and how they are handled. In the pursuit of completing an exam or procedure, veterinary staff are at high risk of pushing nervous dogs past their limits.

PHOTO BY DAN GOLD/UNSPLASH.COM

PREVENTION: THE BEST MEDICINE

Puppy appointments during the critical socialization period are the perfect opportunity to build a positive emotional response to visiting the veterinary clinic. Share resources with the client on preparing their puppy for common medical procedures, such as gentle restraint, examining mouth and ears, and taking oral medications. Encourage owners to bring their puppies to the clinic between scheduled visits for short, positive visits.

Training clinic staff on handling methods that minimize fear and anxiety is also important. Pairing high-value treats with potentially aversive experiences such as injections can help prevent dogs from developing fearful associations. Overly constrictive restraint methods such as scruffing or full-body restraint should be avoided in favour of more minimal, gentle restraint methods. Chemical restraint or sedation should be recommended for any patient who is likely to experience significant emotional distress during restraint.

CONSIDERATE APPROACH

Wherever possible, dogs should be given the ability to make choices such as where they want to be examined (e.g., the parking lot). When a particular position is needed, such as sternal recumbency, offer well-trained animals the choice to get into position themselves (down stay). If a certain procedure is likely to be needed repeatedly (e.g., placing an intravenous catheter for chemotherapy treatments), desensitization and counter-conditioning (see below) can be used to prepare dogs to tolerate specific procedures without fear.

Some procedures can be modified to reduce discomfort or stress. For example, standing cystocentesis (ideally using ultrasound) may be preferable for dogs who are uncomfortable with dorsal recumbency. Medications that cause discomfort when given subcutaneously can be given from a distance intravenously for patients with intravenous catheters. Subcutaneous fluids can be warmed up to body temperature to reduce discomfort.

PREVENTING INJURY

Any fearful animal poses a bite risk, and taking early steps to prevent bites is strongly recommended. Not only will this protect everyone's safety, but it will prevent the animal from learning how effective biting can be at making scary experiences stop. Basket muzzles are strongly preferred because they allow room for panting, vomiting, and accepting treats. For brachycephalic patients, Elizabethan collars or bulldog basket muzzles can be used.

Clients can be coached to muzzle train their dogs so that the muzzle is not a scary or novel experience. Muzzle training can be very quick and effective if the dog does not have any pre-existing fearful associations with the muzzle.

Evaluate needs versus wants during the exam. Perhaps the owner would prefer the veterinary team to trim a dog's nails if they struggle to do it at home. But if the dog learns to associate scary nail trims with the veterinary hospital or being restrained, this practice may cause more problems than it solves. Sharing resources with the owner on how to make nail trims a positive experience for their dog, or referring them to a humane, reward-based trainer is a better long-term solution.

"DOGS WILL SHOW SIGNS OF DISCOMFORT BEFORE THEY ESCALATE TO DEFENSIVE BEHAVIOURS..."

DESENSITIZATION AND COUNTER-CONDITIONING

The goal of desensitization and counter-conditioning training is to change the emotional response of the animal to a certain trigger from a negative one (fearful) to a positive one (happily expecting reward). It is achieved by repeatedly exposing the dog to the fear-inducing stimulus, starting at a level the dog can tolerate without significant fear, and pairing it with high-value treats.

Desensitization and counter-conditioning is a powerful tool for helping dogs overcome triggers they may have developed with specific procedures or environments in the veterinary hospital. Although it can sound complicated, the practical application is easy to pick up and takes less time than many veterinarians assume. Mild triggers can be re-trained in a matter of minutes. More highly practiced or severe triggers can take longer (days or weeks).

For example, here is a desensitization and counter-conditioning plan for a dog who is afraid of being auscultated with a stethoscope:

1. Place the stethoscope on the floor and sprinkle treats around it. Let the dog approach and investigate the stethoscope and find the rewards at their own pace.
2. Hold the stethoscope in one hand, and some treats in the other hand, and place both hands behind your back. Offer both the stethoscope and treats to the dog at the same time, hands side by side.
3. Now include a second person or the client in the training. Wear the stethoscope normally and hold the chest piece out toward the dog's chest, but not touching them. Have the assistant offer treats in the position you want them to stand (where you want the dog's head to be). Remove the stethoscope and the treats at the same time.
4. Repeat step 3, gradually moving closer and closer to the dog's chest.
5. When you can touch the stethoscope to the chest and the dog's body language is comfortable, gradually increase the duration of contact, and vary the position of the chest piece, taking short breaks where both the treats and the stethoscope are removed. Continue until a complete auscultation can be performed.

Tips for effective desensitization and counter-conditioning sessions:

- Do not move on to the next step until the dog's body language tells you they are comfortable with the current step.
- It is common to focus on the "on time" when the trigger is present, and the treats are available. However, dogs learn just as much when the trigger and the reward are removed at the same time. Don't forget to include short (5 to 20 second) "off time" breaks where the dog is not being rewarded, and the trigger is not present.
- Timing is important: the trigger and treats must be presented and removed together, or learning will take longer.

"PREVENT THE ANIMAL FROM LEARNING HOW EFFECTIVE BITING CAN BE AT MAKING SCARY EXPERIENCES STOP."

PHARMACOLOGIC INTERVENTION

Pre-visit oral medications

For mild to moderate fear, pre-visit oral medications can be effective at lowering anxiety enough for examinations or small procedures. Finding a fast-acting medication or combination of medications that works well for an individual dog often takes some trial and error. Popular medication choices include trazodone, gabapentin, clonidine, and benzodiazepines. Potential side effects (sedation, paradoxical excitation) must be discussed with clients, along with setting appropriate expectations for effectiveness. Test doses should be done at home when the client is able to monitor the dog's response.

Chemical restraint

Injectable medications are most useful for chemical restraint. In healthy patients, it is usually not problematic to give injectable anxiolytics or sedatives in addition to pre-visit oral medications, but it is best to look up individual drug interactions as needed. Many sedatives, such as alpha-2 agonists, benzodiazepines, and opioids, have potent anxiolytic effects. Generally, a combination of medications provides the strongest effect with the least risk. For very extreme cases, inducing anesthesia for a procedure that normally wouldn't require anesthesia (nail trim, wound care) may be necessary.

Most injectable medications can also be absorbed through the oral trans-mucosal route, including dexmedetomidine, opioids, midazolam, and ketamine. This is most useful for animals who are difficult or dangerous to handle in the veterinary clinic, but can be safely handled by their owners in the parking lot. The medication must be given slowly in the buccal pouch with a syringe, which can take several minutes. Effects are less predictable than medications given by injectable route, and effects are usually seen in 20 to 40 minutes.

PROGNOSIS

Factors that affect the prognosis for a dog to overcome their fear of the veterinary clinic are pet temperament, duration and intensity of fearful responses, early socialization experience, and owner willingness to engage in treatment. Most cases do respond favourably to treatment.

RESOURCES

Fear Free: https://fearfreepets.com

Low Stress Handling University: https://lowstresshandling.com

Muzzle Up: https://muzzleupproject.com WCV

A RECIPE FOR **TRUST**

BY ELAINE KLEMMENSEN, DVM, CEC

Low Trust + High Fear = Toxic Culture

I recently came across this recipe for a toxic team culture. Like many of you, I too have experienced working in a toxic practice environment. In the first instance I internalized the blame, shame, and negativity and almost left the veterinary profession. In the second, despite being a seasoned leader, I found myself struggling to maintain my balance and objectivity, and to show up aligned with my values. In both cases, leaders attempted to control the team using a variety of fear-based tactics from blame, shame, and judgment to emotional manipulation, favouritism, and exclusion. Feelings of trust and safety on the team were low; people became suspicious and guarded, and both patient and client care suffered. Looking back, the effects of low trust and high fear on team dynamics should not come as a surprise. Still, I am shocked at how quickly I became disconnected and disengaged despite my experience and passion for this profession. Trust and psychological safety are the foundation upon which we need to build our culture if we truly want to create healthier hospitals in veterinary medicine.

"I INTERNALIZED THE BLAME, SHAME, AND NEGATIVITY AND ALMOST LEFT THE VETERINARY PROFESSION."

In *The Speed of Trust*, author Stephen Covey stated, "Trust means *confidence*. The opposite of trust—distrust—is *suspicion*. When you trust people, you have confidence in them—in their integrity and in their abilities. When you distrust people, you are suspicious of them—of their integrity, their agenda, their capabilities, or their track record." We hold back information when we are suspicious of someone, and we avoid connecting with those we don't trust. From a business perspective, low levels of trust and high levels of fear result in poor communication, decreased accountability, and low employee engagement. This translates into decreased customer service, negative patient outcomes, bad reviews, and reduced profit. From a people perspective, it translates into high tension between teams, problem employees, increased burnout, and high turnover.

Trust is the foundation upon which psychological safety is built and the cornerstone of a healthy culture. It is perhaps the most important form of capital for today's leader. The culture of your hospital has the potential to set you apart in today's competitive market. An amazing culture will not only help you attract the brightest minds in veterinary medicine, but also protect those bright minds from early burnout and ensure a strong future for our profession.

Building trust requires a new recipe: high trust + low fear = amazing culture. It also demands that we approach leadership from a new perspective. Leadership isn't about you, your charisma, your strategy, or your talents. It is about your ability to inspire and empower others to develop to their full potential and embrace a shared vision that you work together to achieve. I've included a few key ingredients for your consideration. The specific ingredients you add will make your recipe unique.

WALK THE TALK

In order to engender trust, leaders must model the values and behaviours they want their team to adopt. If you want your team to be vulnerable and engage in difficult conversations, you must be willing to model this style of communication. Listen actively to what others say, respond with interest, and build on their ideas with respectful feedback. Actions speak louder than words. Curious and inclusive leaders teach their teams that they do not need to agree on everything. Rather, they need to respect different opinions and see the value this brings to a team. Creating space for divergent views results in a more comprehensive analysis of any situation and leads to creative problem solving. Here are a few phrases leaders can use to model the way:

- I'm curious about that; tell me more
- What are your thoughts on this?
- What's the biggest challenge in this, for you?
- What do you need from me?

THIN RULE BOOK = THICK CULTURE

Your employees are qualified, capable, creative people, not naughty children. Don't demean them with a 50-page policy manual of rules and consequences. Instead, co-create your shared values and the behaviours that support those values. Set expectations and then hold them accountable. Believe in your people as well as their desire and ability to do the right thing.

SAY NO TO BLAME

Give people the grace to make mistakes and the opportunity to learn from them. Finger pointing is unproductive, lowers morale, and quickly undermines trust. You can teach your team to approach mistakes in a productive way by reframing them as a team problem not an individual one. Explore the following questions together:

- What happened?
- What can we do as a team to fix this?
- How can we prevent this from happening in the future?
- What did we learn today?

CONNECT ON A PERSONAL LEVEL

A wise mentor once told me "People don't care how much you know until they know how much you care." Leaders need to be on the floor building relationships through shared experience. If leadership is a process of social influence to achieve a common goal, you cannot exert influence from behind an office door. Trust is built when someone sees that you recognize their contribution and truly value them as a person, not just an employee. We need to create genuine connections that make our practices human centered rather than profit centered. Your people are your biggest asset, so be sure they know how much you appreciate them.

LEARN THE ART OF BEING VULNERABLE

Vulnerability is not oversharing but rather, being human. Leaders who are willing to admit they are fallible, get messy, make mistakes, own them, and make amends give their team members permission to do the same. Here are a few powerful phrases that leaders can use that can help make the workplace feel a little safer for your team:

- I don't know
- I need help
- I made a mistake
- I'm sorry

HOLD PEOPLE ACCOUNTABLE

Organizations with high levels of trust believe it is okay to make mistakes as long as you are willing to learn from the consequences. This does not mean that behaviours or shortcuts that put patients, coworkers, or the practice at risk should be tolerated. Leaders need to communicate clear expectations, define boundaries, and be willing to respond to blatant disregard for rules in a way that is fair and consistent. This reinforces the values the practice holds dear. Your team will not only recognize the difference between a mistake and violation of rules, but they will also appreciate that you are serious about your values and creating a safe, healthy, and inclusive culture.

"CO-CREATE YOUR SHARED VALUES AND THE BEHAVIOURS THAT SUPPORT THOSE VALUES."

REVISIT YOUR PURPOSE

Your team needs to be reminded of what draws us all to this work and why it matters. This is perhaps more important now than ever. When people are tired and frustrated, it is easy for them to lose sight of the big picture. Finding meaning and connection to something bigger than ourselves has a protective benefit from the dangers of burnout and compassion fatigue. Amy Edmondson, the guru of psychological safety, says in her book *The Fearless Organization: Creating Psychological Safety in the Workplace*, "Leaders who remind people of why what they do matters—for customers, for the world—help create the energy that carries them through challenging moments." This profession makes a difference in the lives of our clients, our patients, and our communities. Don't let your team lose sight of this.

Building trust is an ongoing and ever-evolving journey. It is a constant process of small, intentional moments that accumulate over time. Each of us has the opportunity to influence our employees, colleagues, and coworkers by the way we carry ourselves, the way we communicate, and the way we lead—making a difference in not only our world but also in the world of those around us. It's time to ensure our recipe for an amazing hospital culture includes the key ingredients that maximize trust.

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BRACHYCEPHALIC DENTISTRY, A CHALLENGE FOR EVERYONE

BY ADRIANA REGALADO, MVZ, AVDC

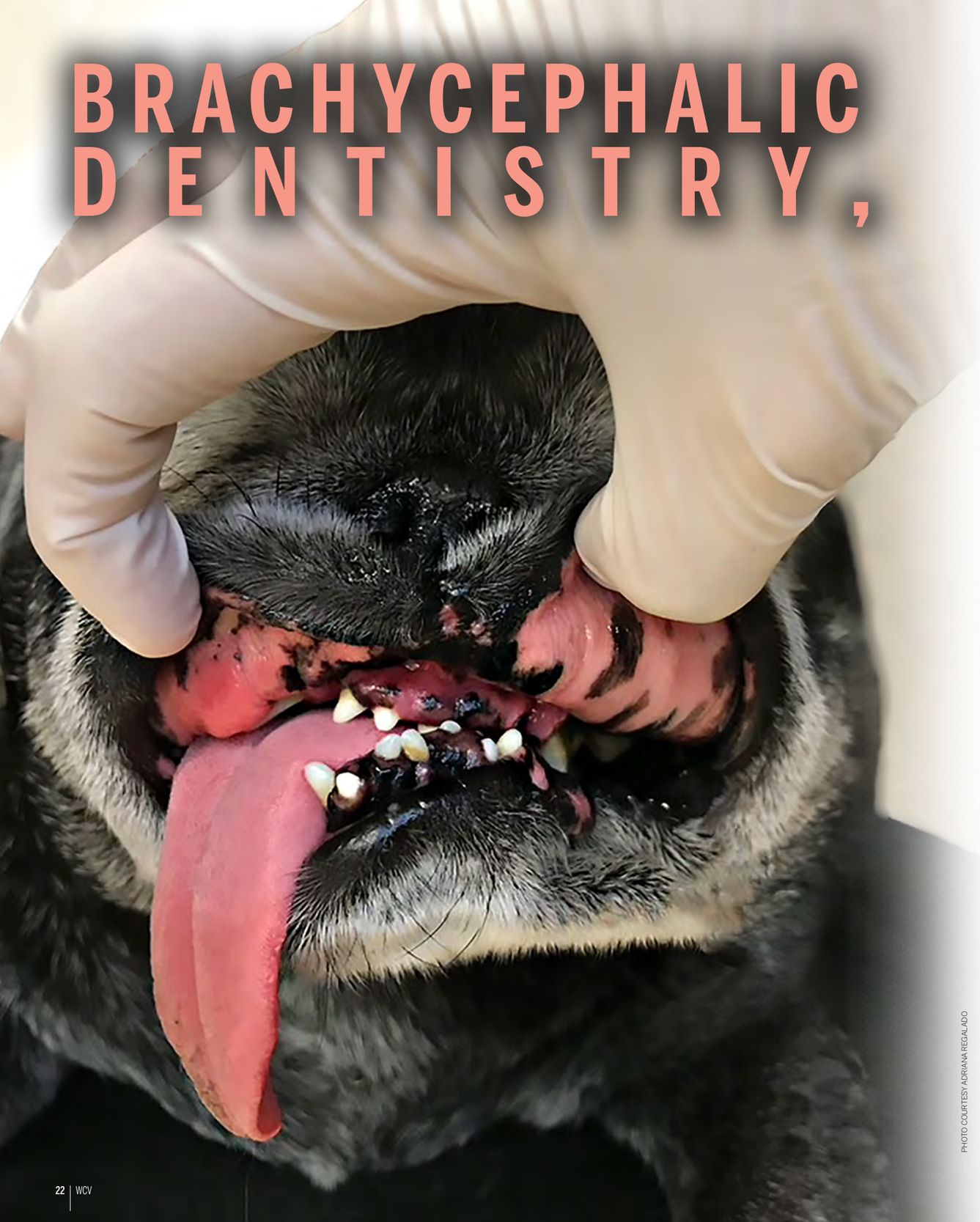


PHOTO COURTESY ADRIANA REGALADO

Brachycephalic breeds represent a challenge for their owners and the veterinarians who take care of them. During the course of their lives, flat-faced breeds get to meet most of the specialists in town: the internal medicine specialist to treat their gastro-esophageal reflux; the ophthalmologist to correct their cherry eye, KCS, or pigmented keratitis; and the dermatologist to treat a life of chronic otitis, skin fold intertrigo by a methicillin-resistant bacterium, and aromatic yeast infections. Most owners of brachycephalic dogs accept that sooner or later they will spend sunny summer days at the emergency department after their pet has developed heatstroke. They get to meet their radiologists for abdominal ultrasounds to rule out a hiatal hernia or indirectly when we send the chest studies of their old, overweight bulldogs with hemivertebrae and pectus excavatum. On a final note is dentistry.

It is understandable that when you see "Routine COHAT" on your schedule with a small note—"Overweight brachy, terrible teeth, snores a lot, sensitive tummy, may bite"—you immediately give instructions to the supporting staff to book light if possible and reschedule your last appointment of the day. Brachycephalic dentistry has its challenges; however, know that you are not alone. Like all things in the veterinary profession, the more familiar you become with the brachycephalic dental pathologies and their treatment choices, the easier it will be to make decisions that will allow you to maximize your schedule by separating cases that you can treat at your facility from the ones that should be referred.

We reviewed in an earlier article that the genes *SOMC2* and *BMP3* are associated with the characteristic brachycephalic facial length variations and skull shapes. However, dentition and soft tissue are regulated by different genes, so disharmony between the teeth, bone, and soft tissue is unavoidable.

In this article, I will review the six main challenges that I have identified in performing dental care on brachycephalic breeds.

1. SCARCITY OF TIME

The first challenge that veterinarians encounter is not having enough time during the 15-to-20-minute annual examination for brachycephalic breeds. It is not uncommon to have multi-systemic pathologies in short-faced breeds, but by the time that the appointment is done, we still miss half of the dog's issues. One possibility is to educate the clients that a second appointment may be needed to complete the dental exam. Another tool that we can use is a customized brachycephalic facial examination sheet that can allow the supporting staff and the general practitioner to identify or rule out the most common pathologies.

Facial examination

Some of the common abnormalities found in brachycephalic breeds are:

- Facial and musculoskeletal features: shifting, deviation, or swelling
- Masticatory muscles: abnormal muscle mass, pain, atrophy, or inflammation
- Eye: keratoconjunctivitis sicca, distichiasis, prolapse of the nictitans membrane gland, pagoda eye/diamond eye, corneal ulcers, keratomalacia, or pigmented keratitis
- Skin: skin folds, pyoderma, and dermatophytosis
- Ears: abnormal and edematous pinna, inflammation and erythema of the ear canal
- Nose: discharge, hyperkeratosis, stenosis, secretion, decreased airflow
- Composure and lips: trauma, closure capabilities, and mucocutaneous junctions
- Occlusion: trauma resolution from class 3 or 4 malocclusions; the patient can not open, close, or move their jaws
- Salivary gland palpation: swelling—sialadenitis, siolocele, and sialidosis
- Oral pain: drooling, chattering teeth, licking, flicking the tongue, preference for soft food, avoidance of playing and chewing on toys
- Lymph node (mandibular): enlarged, fixed, unilateral, or bilateral

2. POOR VISIBILITY

The second challenge is difficulty viewing (tongue and cheek in your field of view) and accessing the caudal, lingual, and palatal surfaces where most of the lesions can be found. We recommended using a digital aid to capture the intraoral structures while the dog is distracted with a delicious peanut-butter treat; you can also keep the mouth open if you allow the pet to hold a rubber toy.

If you are unable to perform your dental evaluation on that nervous, insecure, one-and-a-half-year-old intact Frenchie (unsocialized due to COVID), do not worry, no one will judge you for trying to save your finger and hand from an imminent attack.

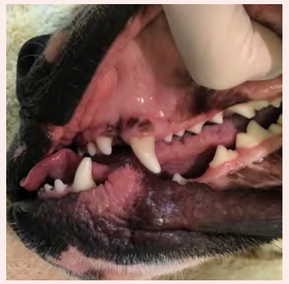
Ask the owner to take pictures at home. They can try while "Buddy" is sleeping on the couch and they have their cellphone handy while swiping through their Instagram feed. Make sure everybody in the clinic is aware that oral documentation is needed, so if "Bruno" is scheduled to be neutered or is going to the ophthalmologist for his cherry eye surgery, ask the staff, your colleague, or the referral clinic personnel to obtain pictures.

3. NEED FOR PROPER EVALUATION OF THE OCCLUSION AND THE POINT OF CONTACT BETWEEN THE MAXILLARY AND MANDIBULAR TEETH

Malocclusion class 3 (see Table 1) is one of the hallmarks of brachycephalic breeds. This type of malocclusion frequently results in traumatic malocclusion

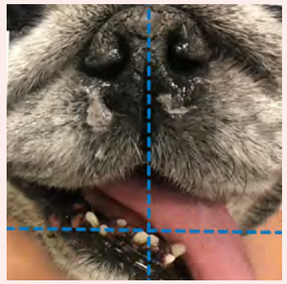
"YOU IMMEDIATELY GIVE INSTRUCTIONS TO THE SUPPORTING STAFF TO BOOK LIGHT IF POSSIBLE AND RESCHEDULE YOUR LAST APPOINTMENT OF THE DAY."

TABLE 1: Dental malocclusions common in brachycephalic breeds.



Skeletal malocclusion—class 3

Mandibular mesioclusion: an abnormal rostral-caudal relationship between the dental arches in which the mandibular arch occludes rostral to its normal position relative to the maxillary arch.

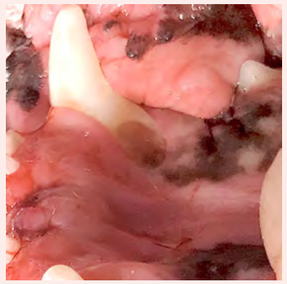


Skeletal malocclusion—class 4

In brachycephalic dogs, this condition is suspected to be secondary to macroglossia and an abnormal symphysis (wide and loose). The weight of the tongue produces a permanent deviation of one of the mandibular rami in ventral and buccal directions and the flaccid fibrocartilaginous plate. Pets affected by this condition keep the tongue to one specific side of the mouth at the level of the mandibular premolars. Other causes of class 4 malocclusions are trauma, fractures, and malformations.

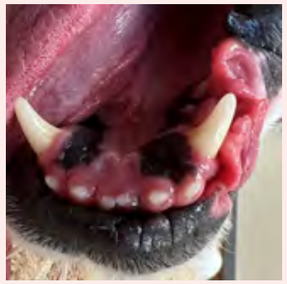
PHOTOS COURTESY ADRIANA REGALADO

TABLE 2: Types of traumatic occlusion.



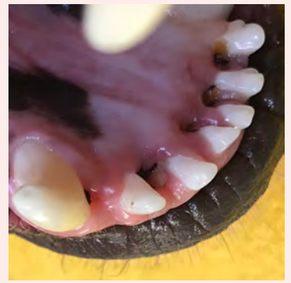
Tooth-to-tooth contact (see Table 1, malocclusion class 3)

The degree of damage to the enamel, dentine, or pulp varies depending on the speed at which the lesions occur, the amount of surface and angle that are touching, and the damaged surfaces. This picture shows severe attrition of the linguodistal aspect of the right mandibular canine tooth 404.



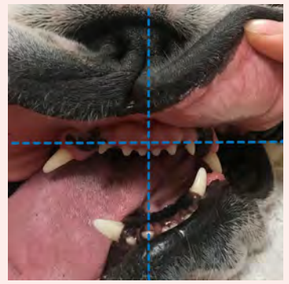
Tooth-to-soft-tissue contact (see Table 1, malocclusion class 3)

The degree of direct damage to the gingiva or oral mucosa depends on how deep and chronic the lesions are. Mucosal lesions resulting from self-induced bite trauma on the cheek will be seen. Also, contact with the occlusal and sharp surface of teeth or constant pressure against teeth will create ulcers and granulomas. Constant pressure into the tooth will induce indirect damage and inflammation of the periodontal ligament, making its structure more susceptible to damage by bacteria and vulnerable to periodontal disease.



Tooth-to-hard-tissue contact

Horizontal bone loss and vertical bone loss. In this photo, the cusps of the maxillary incisors are traumatizing the interdental spaces. The result is the destruction of the alveolar bone.



Soft-to-hard-tissue contact

Remodelling of the body of the mandible (see Table 1, malocclusion class 4). Notice the loss of the incisors' midline and the ventral deviation of the left rostral mandible.

PHOTOS COURTESY ADRIANA REGALADO

that can be classified as tooth-to-tooth contact, tooth-to-soft-tissue contact, tooth-to-hard-tissue contact, and soft-to-hard-tissue contact. Becoming familiar with these common lesions will allow you to look in the right locations and recognize the lesion in only a few minutes.

There are two stages of the intraoral examination: before placing the endotracheal tube and after. A proper evaluation of the occlusion must be done after induction and before intubation. This procedure requires a pre-oxygenated patient, and the veterinarian must be familiar with the traumatic oral lesions in brachycephalic breeds. Once more, the integration of technology into our daily practice will allow us to quickly collect documentation that can be evaluated in more detail once the patient is intubated.

Intraoral examination should examine the following elements. Steps 1 through 3 must be completed before placing the endotracheal tube, and steps 4 and 5 can be completed after.

1. Evaluate stability of the joints and flaccidity
   a. Normal temporomandibular joint range of motion and adequate to discrete symphyseal laxity
   b. Abnormal or decreased mouth opening (difficulty opening the mouth by the animal or decreased range of mouth opening upon oral examination)
2. Evaluation of traumatic occlusion: interaction between soft and hard tissues
   a. Normal: no traumatic occlusion
   b. Abnormal: tooth-to-tooth, tooth-to-soft-tissue, tooth-to-hard-tissue, soft-to-hard-tissue, and soft-to-soft-tissue (see Table 2)
3. Palpate and evaluate the integrity and stability of bony structures
   a. Normal
   b. Abnormal
4. Evaluate the soft tissue: gingiva, oral mucosa, tongue, palate, tonsils, and vestibule
   a. Normal
   b. Abnormal: inflammation, ulceration, perforation, recession
5. Evaluate dentition
   a. Type: deciduous, mixed, permanent, and persistent deciduous tooth
   b. Number: full dentition, missing teeth, or supernumerary
   c. Dentoalveolar discrepancy/dental versions
   d. Supra-gingival structures: crown integrity—fractures
   e. Infra-gingival: periodontium and endodontium

4. LACK OF STANDARDIZATION OF THE TREATMENT OF BRACHYCEPHALIC PATHOLOGIES

Another challenge is the lack of standardized treatments for pathologies such as dentoalveolar disharmony, i.e., crowded, rotated, and partially erupted teeth. The proactive approach is to perform selective extractions; the conservative approach is to extract only the teeth affected with periodontitis. Dental-maxillary and dental-mandibular disharmony is a disproportion between the size or mesiodistal diameter of teeth and the perimeter of the corresponding alveolar arches. As a result of this disharmony, the teeth will present different versions. Brachycephalic dogs have short alveolar arches that prevent the 42 permanent adult teeth from functional alignment and the necessary spacing. As a result, the teeth are forced to erupt in the DV, PV, or BV position, or the oral mucosa.

Three factors can make crowded and rotated teeth targets for periodontal and endodontic pathology.

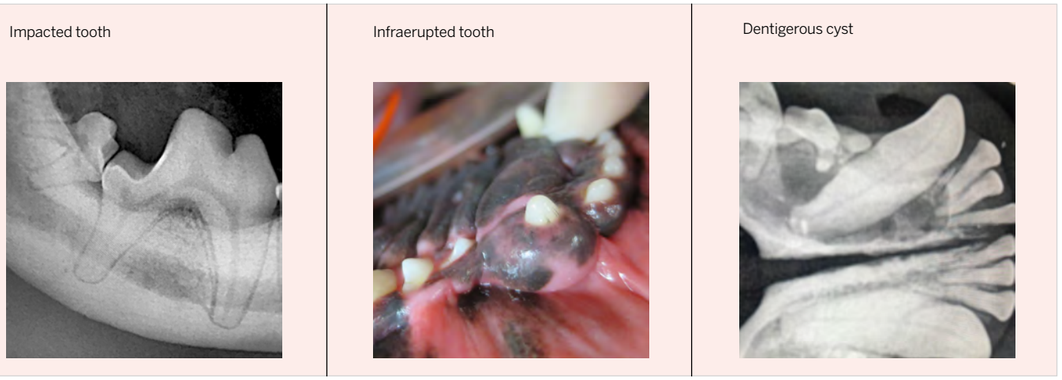
- Receiving constant occlusal forces
- Retaining food debris and bacterial plaque
- Having periodontal abnormalities (thin and narrow attached gingiva, absence of interdental papilla, and shared, thin, partial, or absent cementum and alveolar bone)

5. OBTAINING DENTAL RADIOGRAPHS

Dental radiographs are essential for the diagnosis of many dental pathologies. Mastering the technique of obtaining full-mouth studies takes time. However, when you work with a brachycephalic breed, anything you learned about angles, positioning, and sometimes anatomical landmarks will NOT work. Brachycephalic dogs with a Bulldog-type skull have disproportionately short facial bones, overshot lower jaw, dorsal rotation of the palate, and dorsal rotation of the pre-maxilla. The other type of brachycephalic breed has an allometric scaling. So if you are going to obtain X-rays in Pugs, French Bulldogs, and Boston Terriers, you have to remember that they have a large brain case and a short snout. Also, not only is obtaining the X-rays difficult, but interpretation is complex due to the superimposition of anatomic structures, crowding of teeth, and rotation of teeth. Previous studies showed that dental X-rays in brachycephalic dogs compared with other advanced imaging methods are optimal only to identify the palatine fissures, the nasal turbinates, and the right and left maxillary canines.

For example, if you need an image of the apex of the maxillary canines, you need to direct the X-rays in the dorsal to ventral direction and slightly rostral to the medial canthus. Another challenge is the small and concave anatomy of the caudal mandible, which does not allow placing a sensor in parallel to the mandibular body. The X-ray sensor has to be in place down into the throat, and the angle should be adjusted caudal to rostral.

X-rays in brachycephalic breeds are reliable when we need to evaluate loss of tooth integrity or dental disorders such as abnormally shaped roots, periapical disease, missing teeth, or abnormal eruption. We know that CBCT methods are better suited than dental radiography for identifying anatomic landmarks



PHOTOS COURTESY ADRIANA REGALADO

FIGURE 1: Dental pathologies related to unerupted teeth.

in brachycephalic dogs. CBCT provides more detailed information than dental radiography and is therefore better suited for use in diagnosing dental disorders in brachycephalic dogs.

Dental X-rays are only part of the diagnosis for many dental pathologies, yet they are essential for knowing the real status of a missing tooth. When a tooth is not visible during the oral examination, there are three possible scenarios:

1. The tooth was never developed (truly missing)
2. The tooth did not erupt because it was prevented by contact with a physical barrier (impacted tooth, see Figure 1) or its eruption was compromised by lack of eruptive force (embedded tooth)
3. The tooth is infraerupted, meaning that it has failed to erupt to be in line with adjacent teeth in the vertical plane of occlusion (see Figure 1)

In brachycephalic breeds, the most common unerupted teeth are the first premolars, followed by the canine and third molar teeth. Unerupted teeth have the potential to develop the following problems:

a) Dentigerous cysts, which are odontogenic cysts initially formed around the crown of a partially erupted or unerupted tooth; also called follicular cyst or tooth-containing cyst (see Figure 1)
b) Malignant lesions such as ameloblastomas or osteosarcomas

While malignant lesions are extremely rare, dentigerous cysts are not: 30 to 40 per cent of unerupted teeth will develop a cyst. Available data confirmed that brachycephalic breeds, especially Boxers, Pugs, Shih Tzus, and Boston Terriers, are more prone to these lesions.

6. THE PECULIAR CHARACTERISTICS OF THE SKULL, TEETH, GINGIVA, TOOTH ALIGNMENT, AND ABNORMAL INTERDENTAL SPACES MAKE TOOTH EXTRACTION DIFFICULT

Why is dentistry in brachycephalic breeds is so hard? Luxation is difficult due to the nonexistent interdental spaces, the gingiva is more fibrous than in other breeds, ankylosis and external replacement resorption are common, and closing the extraction sites is not easy when teeth are rotated. This is the perfect storm for an enjoyable Friday afternoon "routine COHAT."

My advice is first and foremost, take a deep breath and remember that you do not have to deal with this. You can refer the case to your dental specialist with a proclivity toward brachycephalic breeds. If that is a choice you cannot make, start by obtaining X-rays and cleaning the teeth; later you can re-evaluate. If a referral is still not an option, you can split the procedure into two stages.

Some of the tips that I can share with you are:

- NEVER perform dentistry without dental X-rays.
- Block the palatine nerve, as many rotated maxillary teeth are in the palate.
- Be very careful when you extract maxillary premolars 107, 108, 207, and 208. Remember that the infraorbital nerve and artery is two to three millimetres dorsally from the roots of the premolar, just under the oral mucosa when you may need to release the flap.
- Make sure you replace your scalpel blade a couple of times during the surgery, as the attached gingiva in brachycephalic breeds is tougher than in other breeds.
- Use a small root tip luxator or a small luxator to wedge the space between the rotated and crowded teeth. Then, once you have space for your instrument to luxate the teeth, always start with the root toward the palate or the lingual aspect.
- Avoid overconfidence when you are extracting an incisor. If you break the root, it will take a lot of time to extract it.
- Some brachycephalic breeds have S-shaped mandibular canines, so make sure you remove the necessary amount of dorsal alveolar bone. During the extraction, you may need to perform a manoeuvre where you pull in a distolingual-dorsal direction.
- When you close the extraction sites of unerupted teeth 305 and 405, make sure you release a nice flap and the closure is without tension. This area has the tendency to dehisce due to the forces and tension applied to the frenulum.
- When extracting unerupted teeth, make sure you obtain lateral, ventrodorsal, and bisecting X-rays so you have a clear idea where the root of the canine tooth is, avoiding trauma to the root.

CONCLUSION

Dentistry in brachycephalic breeds represents a significant challenge, but it can be managed with the right tools, such as education of the veterinary community, visual guides for clients, awareness of the possible lesions, and knowledge of the possible treatments. Many of the dental pathologies in brachycephalic breeds are the result of traumatic malocclusion and dentoalveolar disharmony. Fortunately, early intervention can prevent chronic painful conditions such as periodontitis, oronasal fistulas, ulcers, pulpitis, and severe attrition. WCV

URINARY TRACT INFECTIONS

AND WHAT VETERINARIANS SHOULD KNOW NOW

BY KIMBERLY HOOI, BVSc (HONS), DVSc, DACVIM

Bacterial urinary tract infection is one of the leading causes of antimicrobial use in veterinary medicine. Although older data from the 1980s suggests that approximately 14 per cent of dogs will have a urinary tract infection at some point in their lifetime, no recent data is available, and the incidence today may be higher. In both human and veterinary medicine, there is an increasing prevalence of multi-drug-resistant infections, necessitating rational and judicious use of antimicrobials. Consequently, guidelines have been released (and recently updated) by the International Society for Companion Animal Infectious Diseases to try to guide diagnosis, adjunctive diagnostics, treatment, and follow-up of urinary tract infections. Another useful tool is the CVMA's Firstline, available as a phone app, which provides information on pathogens and recommendations for antimicrobial use categorized according to animal species and area of infection.

Early identification of cats and dogs with comorbidities that may result in recurrent or resistant infections and correct identification of non-infectious lower urinary disease not only results in more rational antimicrobial use but also may help to reduce morbidity, owner understanding, and owner satisfaction.

PATHOPHYSIOLOGY OF URINARY TRACT INFECTION

Development of urinary tract infection involves compromise of host defence mechanisms (anatomic, environmental, or immunologic) and adherence, multiplication, and persistence of a virulent bacterial organism within the lower urinary tract. Host defence mechanisms that guard against urinary tract infections include normal micturition behaviour, anatomic structures that prevent ascending bacterial infection, mucosal defence barriers, antimicrobial properties of urine, and presence of systemic immunocompetence. Most bacterial urinary tract infections occur because of ascending infection of bacteria from the rectum, perineum, and genitals. The proximity of the rectum to the vulva in female dogs and cats therefore increases their risk of ascending bacterial infection. It is no surprise that several retrospective studies have found that bacteria from the Enterobacteriaceae family (specifically *E. coli*) are the most common bacteria isolated, followed by *Staphylococcus* and *Enterococcus* species. Multi-drug-resistant isolates have been found to be more common in dogs with concurrent comorbidities, and an increased number of resistant isolates is documented in dogs who have received amoxicillin, doxycycline, or enrofloxacin in the 30 days before urine culture.

> "DOGS HAVE A HIGHER INCIDENCE OF URINARY TRACT INFECTION AND PREVALENCE OF POSITIVE URINE CULTURE THAN CATS."

Dogs have a higher incidence of urinary tract infection and prevalence of positive urine culture than cats (less than 1 to 2 per cent over the course of their life). In a recent study looking at prevalence of urinary tract infection in dog and cat samples submitted for culture in Spain, positive urine culture was associated with older age in both dogs and cats. This most likely reflects an increasing presence of comorbidities with age, which increases the risk of urinary tract infection.

COMORBIDITIES AND RISK FACTORS FOR URINARY TRACT INFECTION

Identifying concurrent comorbidities will help identify patients predisposed to recurrent urinary tract infection and can help us understand factors we can use to try to prevent recurrent urinary tract infections. Risk factors can be broken down into systemic factors and local factors.

TABLE 1: Risk factors for urinary tract infection.

Systemic factors	Local factors

• Female
• Chronic kidney disease
• Endocrinopathy
  • Diabetes mellitus
  • Hyperadrenocorticism
  • Hyperthyroidism
  • Hypothyroidism
• Obesity
• Administration of immunosuppressive medication
• FIV/FeLV infection (cats)
	• Anatomic abnormality
	  • Abnormal vulvar conformation (hooded vulva)
	  • Ectopic ureter
	  • Mesonephric duct abnormality
	  • Rectal fistula
	• Abnormality of micturition
	  • Urinary incontinence
	  • Neurogenic lower urinary tract dysfunction caused by spinal cord injury
	  • Urine retention
	• Lower urinary tract neoplasia
	• Urolithiasis
	• Prostatic disease
	• Polypoid cystitis
	• Urinary tract implants
	  • Ureteral stents
	  • Urethral stents
	  • Subcutaneous ureteral bypass devices
	  • Urinary catheters
	• Urogenital surgery that alters the normal anatomy
	  • Perineal urethrostomy
	  • Scrotal urethrostomy

DIAGNOSIS OF URINARY TRACT INFECTION

Presence of clinical signs with concurrent clinicopathologic evidence supporting bacterial urinary tract infection underpins a diagnosis of urinary tract infection.

Clinical signs are dependent on the location of the urinary tract affected. Clinical signs of lower urinary tract infection may include hematuria, pollakiuria, stranguria, dysuria, inappropriate urination, new or worsened urinary incontinence, or signs of pain on urination or irritation of the vulva or perineal region. Clinical signs of upper urinary tract infection may include fever, poor appetite, vomiting, and abdominal, retroperitoneal, or back pain with concurrent lower urinary tract signs. Some dogs and cats may have a history of lower urinary tract signs that precede their upper urinary tract signs.

Clinicopathologic confirmation of urinary tract infection is based on presence of cytologic evidence of bacteriuria with pyuria or hematuria. Diagnosis should involve at minimum, urinalysis (including urine specific gravity and urine chemistry) and wet mount unstained urine sediment examination. Although pH, glucose, ketone, heme, and bilirubin pads on urine dipsticks can be considered reliable in dogs and cats, leukocyte and nitrite test pads are variably unreliable; therefore, diagnosis of pyuria and bacteriuria should only be based on microscopic evaluation of urine.

The presence of pyuria (greater than 3–5 WBC/HPF) and bacteriuria on sediment examination provides a cytologic diagnosis of urinary tract infection. Depending on the technique used, sensitivity and specificity can be variable. Compared to evaluation of unstained samples, Wright-Giemsa (Diff-Quik) staining or Gram staining can increase the sensitivity and specificity of urine cytology. Automated sediment analysis (IDEXX SediVue Dx) is now commonly available in many veterinary practices. The sensitivity and specificity of the SediVue Dx has been evaluated in canine and feline urine for white blood cells, red blood cells, struvite, calcium oxalate crystals, squamous and non-squamous epithelial cells, and casts. Although relatively high sensitivity and specificity was found for white blood cells, red blood cells, struvite, and calcium oxalate crystals, lower sensitivity has been found for casts and bacteria. Higher urine white blood cell counts can be used as a surrogate for identification of bacteriuria, but sterile inflammatory urinary tract diseases (e.g., feline idiopathic cystitis, inflammation secondary to urolithiasis, or lower urinary tract neoplasia) will have pyuria without bacteriuria. Presence of significant pyuria in a urine sample based on automated sediment analysis should prompt manual urine sediment examination. Confirmation of concurrent bacteriuria and determination of bacterial morphology may guide decisions to start antibiotic therapy and specific antibiotic choice.

Several point-of-care or rapid culture testing methods (Accutest Uriscreen, RapidBac Vet, and Antech Firstract) have been investigated or are currently being investigated as methods for quicker detection of bacterial urinary tract infection. The attraction of point-of-care testing is the ability for a clinician to make a reliable on-the-spot diagnosis, or exclusion of urinary tract infection without the need for expertise or specialized equipment. These tests would minimize unnecessary antibiotic use and potentially provide cost savings to clients if urine culture is then deemed to not be needed. The Accutest Uriscreen, which detects catalases typically found in uropathogenic bacteria, was found to have a sensitivity of 89 per cent and specificity of 71 per cent in dog and cat urine. This was inevitably outperformed by urine sediment examination. The RapidBac Vet has been found to have 89

PHOTO BY LITTER ROBOT/UNSPLASH.COM

to 97 per cent sensitivity and 98 per cent specificity in dog urine. This test also has some capability to determine gram status of the bacteria. Finally, the Antech Firstract uses a proprietary bacterial broth solution with mass spectrometry to detect rapid increases in turbidity that occur with viable bacterial replication. Samples do need to be sent to the lab for this testing, and currently this testing is being performed in conjunction with routine culture. Results are reportedly available in 24 to 36 hours. This testing has been demonstrated to be 97 per cent sensitive and 94 per cent specific compared to urine culture.

While point-of-care or rapid culture tests can provide further confirmation of cytologic findings, the current gold standard for determination of bacterial infection is positive aerobic urine culture, ideally obtained via cystocentesis. Unlike urine cytology, point-of-care testing, and even rapid culture testing, urine culture provides bacterial identification, determination of bacterial concentration in the urine sample, and determination of antimicrobial susceptibility. When cystocentesis is not possible, interpretation of culture results should be made based on bacterial density (colony-forming units) isolated in urine per millilitre (cfu/mL), whether there is single or mixed growth and type of bacteria isolated. The type of infection suspected (e.g., cystitis, prostatitis, or pyelonephritis) should be specified when urine is submitted for culture, as different antimicrobial sensitivity interpretations will be provided depending on the location of infection.

The decision to start antimicrobial therapy while waiting for culture results should be determined by the classification of urinary tract infection suspected to be present. This often can be ascertained by considering patient signalment, clinical signs beyond lower urinary tract signs, and known comorbidities.

CLASSIFICATION OF URINARY TRACT INFECTION

Previous guidelines from the International Society for Companion Animal Infectious Diseases classified urinary tract infections as uncomplicated or complicated. Recently updated guidelines classified urinary tract infections into the five following categories.

Sporadic bacterial cystitis

- Less than three episodes of bacterial infection with lower urinary tract signs in the last year
- Absence of comorbidities
- Healthy, non-pregnant female dogs or neutered male dogs

Recurrent bacterial cystitis

- More than three episodes of bacterial infection with lower urinary tract signs in the last year
- Recurrent bacterial cystitis can be further classified as follows:
  - Relapsing infection: infection with the same organism after successful treatment of urinary tract infection
  - Reinfection: infection with a different microorganism after the initial organism responded to therapy
  - Persistent infection: persistently positive urine culture results with the same microorganism during treatment
- Comorbidities are present and should be investigated

Pyelonephritis

- Infection of the renal parenchyma from ascending infection or bacteremia
- Pyelonephritis can be further classified as follows:
  - Complicated: presence of underlying comorbidity
  - Uncomplicated: no evidence of underlying comorbidity

Bacterial prostatitis

- Bacterial infection of the prostate from ascending infection
- Intact male dogs or associated with prostatic neoplasia

Subclinical bacteriuria

- Presence of bacteria in the urine (from urine culture) without clinical evidence of lower urinary tract disease

TABLE 2: Treatment and follow-up recommendations based on urinary tract infection classification.

Sporadic bacterial cystitis	• Where diagnosis is based on urinalysis, empiric treatment with amoxicillin/amoxicillin-clavulanic acid or trimethoprim sulfonamide should be used • Where urinalysis does not provide a strong suggestion of urinary tract infection (e.g., hematuria without pyuria or bacteriuria) and urine culture is pending, consider NSAIDs (if safe for that patient) until urine culture results are received • 3–5 days of antibiotic therapy is sufficient • Follow-up culture or urinalysis are not required if there is resolution of clinical signs

Recurrent bacterial cystitis	• 3–5 days of therapy may be sufficient where there is recurrent infection, but longer duration of therapy (7–14 days) may be required for persistent or relapsing infections
	• Antibiotic therapy should be guided by urine culture results:
	  • NSAIDs (if safe for that patient) can be used until culture results are obtained
	  • If empiric therapy is used until culture results are obtained, alteration in antibiotic therapy should be guided by patient response and culture results
	• Culture during and after completion of therapy can help to distinguish between recurrent, relapsing, or persistent infection

Pyelonephritis	• Treatment should be guided by urine culture taken before initiation of antibiotics, and serum breakpoint data should be used to determine antimicrobial susceptibility
	  • While urine culture is pending, empiric treatment should be initiated with either a veterinary fluoroquinolone (enrofloxacin, marbofloxacin, pradofloxacin) or a third-generation cephalosporin (cefpodoxime, cefotaxime, ceftazidime)
	  • Once culture results are received, antibiotic therapy should be amended based on susceptibility pattern (discontinue any drugs to which there is resistance) and patient response
	• 10–14 days of therapy is sufficient
	• Repeat urine culture, patient evaluation, and bloodwork to check renal parameters should be performed 1–2 weeks after completion of antibiotic therapy

Bacterial prostatitis	• Urine culture (cystocentesis) may need to be performed in conjunction with culture of fluid from prostatic massage, prostatic fine needle aspiration, fluid collected by urethral catheterization, or third fraction of ejaculate to identify causative bacteria
	• Lipid-soluble, weakly alkaline, high-pKa drugs need to be used to cross the blood–prostate barrier
	  • Veterinary fluoroquinolone (enrofloxacin, marbofloxacin, pradofloxacin)
	  • Trimethoprim sulfonamide
	  • Clindamycin
	  • Macrolides
	• While awaiting culture results, empiric therapy with a veterinary fluoroquinolone should be selected to target Enterobacteriaceae
	• Once culture results are received and appropriate antibiotic therapy is initiated, prostatic abscesses should be drained surgically (ideal), as medical management will not penetrate these
	• Castration (surgical or chemical) must be considered to prevent recurrence
	• 4–6 weeks of treatment are typically required
	• Prostate size should be monitored during therapy, with reduction in size indicating successful treatment

Subclinical bacteriuria	• Avoid culturing urine unless there are lower urinary tract signs present
	• Certain patients with comorbidities will either not be able to demonstrate lower urinary tract signs or evidence of pyuria in their urine; clinical judgment and evidence of a significant, individual clinical change that can be attributed to urinary tract infection is required in these patients
	  • Patients with spinal cord injury
	  • Patients receiving immunosuppressives
	• Treatment of subclinical bacteriuria (based on urine cytology or urine culture) is rarely indicated and should be discouraged
	  • This potentially increases selection for multi-drug-resistant bacteria
	  • Exceptions include patients with urease-producing bacteria or bacteria that form plaques (*Corynebacterium urealyticum*)

ADJUNCTIVE DIAGNOSTICS

For patients with recurrent bacterial cystitis, pyelonephritis, bacterial prostatitis, and subclinical bacteriuria, there should be consideration of possible comorbidities.

The history of the patient should be considered, including adjunctive clinical signs beyond lower urinary tract signs. As well, a thorough physical examination including rectal examination to palpate the urethra and external genital examination should be performed.

Additional testing beyond urinalysis and urine culture should entail baseline bloodwork (complete blood count and biochemistry profile), testing for endocrinopathies if indicated based on history and baseline bloodwork, abdominal imaging (plain +/– contrast radiographs and/or abdominal ultrasound) and cystoscopy. Cystoscopy is useful where either primarily urethral disease (stricture, urethral stone, urethral tumour) or congenital anomalies such as ectopic ureters, rectourethral or urethrovaginal fistula, mesonephric duct, or vestibulovaginal abnormalities are suspected. This modality can provide the clinician with an opportunity to diagnose and potentially treat certain abnormalities (e.g., ectopic ureters, vestibulovaginal abnormalities, urethral stricture, or urethral stones) in the same procedure.

PREVENTION

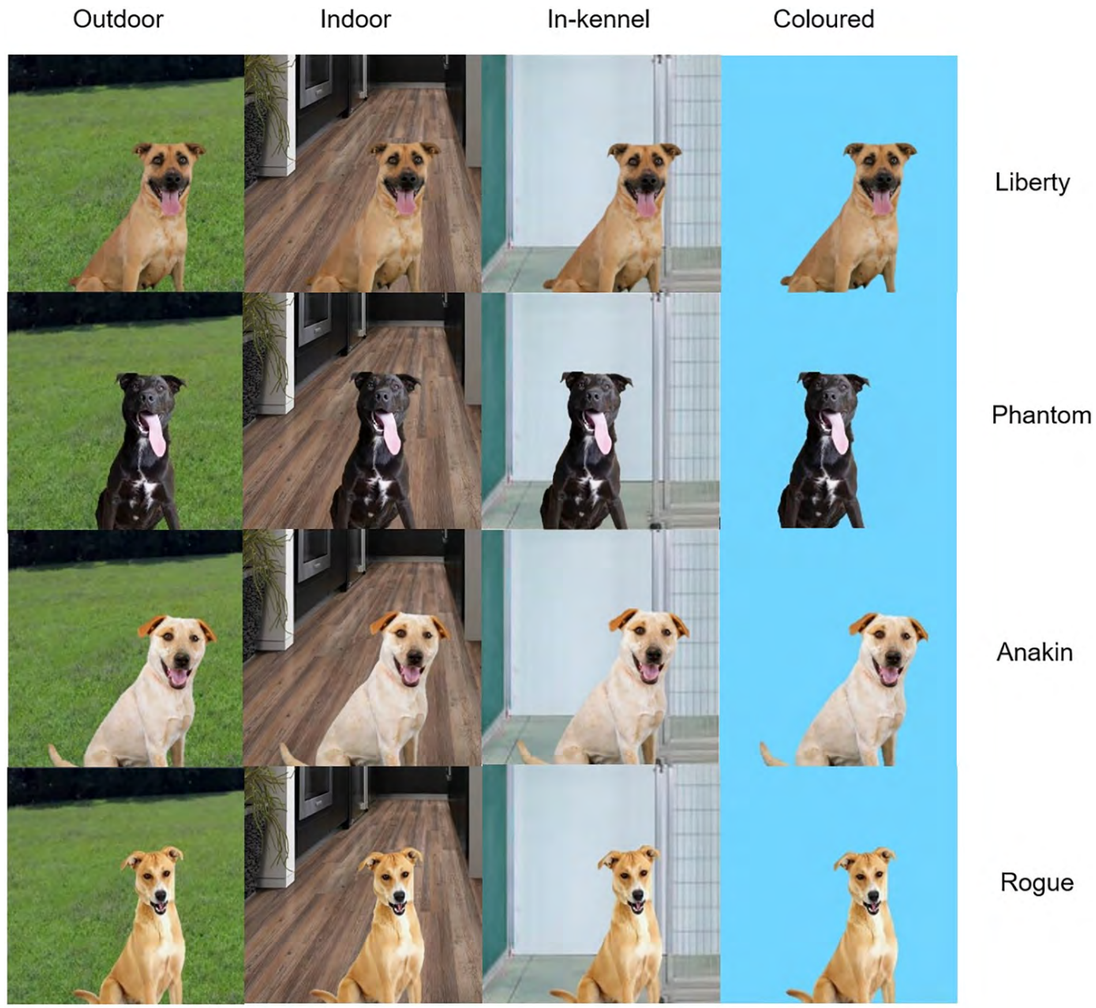
Beyond identification and elimination of concurrent comorbidities predisposing urinary tract infection, adjunctive preventive therapies that have been investigated include cranberry supplementation and bacterial interference therapy with biotherapeutics.

Cranberry supplementation in vitro has been demonstrated to inhibit *E. coli* attachment to canine urothelial cells. In dogs with thoracolumbar disc disease, there was no difference in incidence of urinary tract infection found compared to placebo. The cranberry supplementation dosage may not have been high enough to promote urine anti-adhesion activity, and further investigation is required.

Bacterial interference therapy entails infusion of low-virulence non-pathogenic bacterial strains that compete with and block colonization by pathogenic strains. In dogs with recurrent urinary tract infections, a proportion of dogs (four out of nine) were able to achieve clinical cure with single infusion of biotherapeutic *E. coli*. Repeated infusions may be more effective, as has been demonstrated in humans, and requires further investigation in dogs and cats with recurrent urinary tract infections. WCV

WITHIN A DIGITIZED WORLD
ONLINE PHOTO BACKGROUNDS OF SHELTER DOGS AND ADOPTION INTEREST

BY FIONA LAMB, BSc, ALLISON ANDRUKONIS, PhD, AND ALEXANDRA PROTOPOPOVA, PhD, CAAB



Dogs and backgrounds displayed online.

IMAGE COURTESY FIONA LAMB, ALLISON ANDRUKONIS, AND ALEXANDRA PROTOPOPOVA

To save space, the references for this article are made available on the Chapter's website at www.canadianveterinarians.net/documents/west-coast-veterinarian-spring2022-list-of-references.pdf.

Increasingly, technology is being integrated in our daily lives, and animal sheltering is no exception. Online platforms featuring adoptable dogs now allow shelters to expand their reach to potential pet adopters. Given that pet owners consider these online platforms such as Petfinder to be valuable resources, determining how online marketing materials of shelter dogs impact viewer interest can improve the likelihood of adoption. Various studies have focused on the effect of immutable photo traits such as the appearance of shelter dogs (e.g., ear shape, coat colour) on adoption likelihood. That being said, focusing more on mutable photo traits such as the photo backgrounds of shelter dogs is of interest, as these photo traits can be easily modified by photographers working within shelters.

Although previous research has assessed the role of different online photo backgrounds on the speed of adoption, the preferred background type remains unclear. Some studies reported that photographing shelter dogs outside kennels and in outdoor environments increased adoption rates. Others reported the opposite, finding that dogs photographed in natural environments stayed at the shelter longer than dogs photographed in a kennel or indoor environment. It is also unclear how plain-coloured backgrounds of online photos of shelter dogs affect the speed of adoption. Despite this gap in knowledge, coloured backgrounds are currently being used on pet adoption sites when displaying online photos of shelter dogs. In fact, third-party companies have also emerged claiming that coloured backgrounds improve adoption rates and increase online engagement.

WHAT DID WE DO?

Our goal was to determine whether background types of online photos of shelter dogs altered adoption interest. To answer this question, we conducted a virtual within-subject experiment where four photographs of mixed-breed dogs were selected from the Haven Animal Care Shelter in Lubbock, Texas. The original background for each dog was digitally altered and replaced with four experimental background conditions: 1) outdoor, 2) home indoor, 3) in-kennel, and 4) plain-coloured. Participants—initially unaware of the artificial backgrounds—viewed each dog once in a randomly selected background type and their adoption interest was measured using two proxies:

1. Online dog profile clicking behaviour: participants were provided with a link titled "Click here to view the adoption page" below each dog photo. Participants were initially unaware that the software in our study was programmed to record when participants accessed the link leading to the adoption page of the featured dog.
2. Perceived human-directed sociability scores: participants ranked each dog on a scale of 0 to 10.

At the end of the experiment, participants were asked if they realized that artificial backgrounds in photographs were used in the study. This was measured on a scale of 1 (definitely not aware) to 5 (definitely aware).

"UNDERSTANDING WHICH ASPECTS OF ONLINE MARKETING MATERIAL AFFECT VIEWER INTEREST PROVIDES GUIDANCE FOR BOTH ANIMAL SHELTER PERSONNEL AND FOSTER FAMILIES TO IMPROVE THE SPEED OF ADOPTION OF ANIMALS IN THEIR CARE."

SO DOES ONLINE PHOTO BACKGROUND TYPE MATTER?

Surprisingly, we found that background type did not affect the initial online engagement with pet profiles nor the initial assessment of sociability of shelter dogs by online users—a result that is likely due to various differences in our study compared to past studies relating to our measures of adoption interest, the type of analysis, as well as the type of photo backgrounds used. Instead, link clicking and sociability scores were largely driven by the dog. Unsurprisingly, viewer interest in online photos of shelter dogs is more influenced by the appearance of the dogs rather than the background type.

Another unexpected result indicated that the perceived sociability of dogs in online photos did not predict link clicking on dog profiles. Previously, sociability has been described as a desirable trait in dogs that increases the likelihood of shelter dogs being selected. The disconnection between perceived sociability of photographed dogs and link clicking on dog profiles may be explained by data from a previous study where passive sociable behaviours (e.g., gazing) did not increase adoption rates, whereas active sociable behaviours (e.g., lying close to adopter; initiating play) increased adoption rates. In other words, the perceived sociability of dogs online may not be a valid proxy for adoption interest specifically for photographs within an online environment. Instead, online photos of shelter dogs are well-suited for displaying physical characteristics but constrained from displaying active behaviour more closely linked to sociability.

ARTIFICIAL BACKGROUNDS AND FOSTER FAMILY LOCATION ANONYMITY

With the use of artificial backgrounds in this study, we also wondered if the artificial nature of digitally altered photo backgrounds decreased adoption likelihood (e.g., link clicking and sociability scores). Our data answered no. Participants did not click fewer times on dog profiles even if they were confident that the background was artificial and altered (i.e., were aware of our study hypothesis). This means that digitally altered backgrounds of online dog photographs may be acceptable in the context of sheltering—a potential tool for facilitating photo-taking of shelter dogs within foster homes. Foster families can provide online marketing materials of foster dogs without displaying their home environments. Providing the option for foster families to preserve their at-home privacy by taking advantage of background modifying photo apps, may be a step forward in streamlining adoption—an already digitized process—with further technology. Ultimately, understanding which aspects of online marketing material affect viewer interest provides guidance for both animal shelter personnel and foster families to improve the speed of adoption of animals in their care.

This research was originally reported in F. Lamb, A. Andrukonis, and A. Protopopova, "The Role of Artificial Photo Backgrounds of Shelter Dogs on Pet Profile Clicking and the Perception of Sociability," PloS One 16, *no. 12 (2021), e0255551.* WCV

IF YOU WISH TO SAVE IT, CUT OUT THIS PAGE

THE MORE THINGS CHANGE . . .

COVID-19 SAFETY PLANS AND WHY YOU NEED ONE

BY SCOTT NICOLL, BA, MA, LLB, AND GURINDER CHEEMA, BA, LLB

At the outset of this column, I will apologize for discussing something that you are very likely tired of hearing about: COVID-19. In our last column, we dealt with an employer's human rights obligations, particularly in the context of COVID-19 vaccine status policies. I had—perhaps naively—hoped that column would be the last time I wrote about COVID-19. The unfortunate reality, of course, is that the pandemic persists, and the situation continues to evolve.

Like much of the rest of the world, British Columbia is grappling with its fifth wave of this pandemic. The Omicron variant is causing case counts to soar. Public health officials are not unreasonably responding by imposing additional restrictions and requirements for workplaces and employers, among others.

The evolving restrictions may elicit a variety of responses as this pandemic continues. Employers and employees alike should be wary of vigilance fatigue, however. We must all be careful to make sure we understand our respective obligations sufficiently. A failure to do so may jeopardize more than your patience with public health guidelines.

In particular, you must resist succumbing to an attitude of nonchalance when it comes to the requirement for and observance of safety plans. You will recall that in June 2021, the Government of British Columbia advised employers to shift away from COVID-19 safety plans and instead develop communicable disease plans. Public health officials recently did an about-face of sorts. They have now advised employers to reinstate (or in some cases, instate) COVID-19 safety plans. In the timeless (translated) words of Jean-Baptiste Karr, "The more things change, the more they stay the same."

However, even as the yo-yo of COVID-19 rules presents an ever-moving target, it is important to remember that the moving targets of restrictions and requirements imposed by public health officials are law in this province. Accordingly, you must understand and comply with the current restrictions, lest you fall afoul of the requirements.

It is equally important for employees and employers both to understand your rights concerning COVID-19 liability. To that end, this column will focus on two critical aspects of your obligations and rights: the requirement to implement COVID-19 safety plans and the role of those plans in protecting you from civil legal liability potentially stemming from claims related to COVID-19.

PUBLIC HEALTH ORDER

On January 4, 2022, the provincial health officer, the inimitable Dr. Bonnie Henry, stated that British Columbia businesses should anticipate up to one-third of their employees being ill at any given time. That is not a typo or misstatement. Employers and employees both should be preparing for that eventuality because of the heightened transmissibility of the Omicron variant.[1] That means employers need to have contingency plans to keep operations going when a significant portion of the staff are away ill.

Three days later, on January 7, 2022, Dr. Henry announced the order requiring employers to have COVID-19 safety plans in place.[2] The stated goal of COVID-19 safety plans is to minimize transmission in the workplace. That, in turn, is intended to minimize the potential of that one-third of employees all being ill at a given time. A laudable goal.

WORKSAFEBC GUIDANCE

WorkSafeBC has published a planning tool[3] to guide employers through a six-step process to develop a COVID-19 safety plan. We strongly recommend you review it in detail. The six steps involved in developing COVID-19 safety plans are:

1. Assess the risks at your workplace
2. Implement protocols to reduce these risks
3. Develop policies to manage your workplace
4. Develop communication plans and training
5. Monitor your workplace and update plans as necessary
6. Assess and address risks from resuming operations (if your workplace has been out of operation for a long time)

ASSESSING THE RISKS AT YOUR WORKPLACE

The first step you should take when developing a COVID-19 safety plan for your workplace is to assess the risks.[4] It is recommended that employers take a collaborative approach when assessing risk at your workplace by involving your employees in the assessment. The primary purpose of this step is to identify areas of the workplace that pose the most significant risk of transmission. For example, such areas may be where several people are close to one another or high-touch surfaces like doorknobs and light switches. We have for some time employed an increased level of cleaning of those surfaces and areas in our own offices.

“IT DOES NOT PROTECT YOU IF YOU DO NOT FOLLOW THE PUBLIC HEALTH GUIDANCE PROVIDED, GUIDANCE SUCH AS THE REQUIREMENT FOR . . . YES, YOU GUESSED IT . . . COVID-19 SAFETY PLANS.”

IMPLEMENTING PROTOCOLS TO REDUCE THE RISKS

Employers should implement protocols to reduce the risk of transmission in the workplace. Ideally, you will develop a multi-layered protocol approach with different levels of protection, including elimination, engineering controls, administrative controls, and personal protective equipment, as needed.[5] Elimination refers to limiting the number of people in the workplace when possible. You can eliminate the number of people in your workplace by implementing work-from-home arrangements for employees or by establishing occupancy limits, the latter being a more likely option for most veterinarian clinics. More expensive engineering controls are recommended when physical distancing cannot be achieved (e.g., installing plexiglass barriers). Administrative controls should include rules and guidelines for how employees should conduct themselves to minimize the risk of spreading any contagion (e.g., one-way walkways, requiring disinfection of shared surfaces after use by an employee). Finally, employers can also mandate personal protective equipment in the workplace to reduce the risk of transmission. Again, in our own offices we have adopted a combination of all of the above: staff work from home whenever possible, we limit the physical movements of anyone in the office, we require personal protective equipment whenever anyone leaves their desk, and we limit the occupancy of rooms.

DEVELOPING POLICIES

You should develop policies concerning who can be at your workplace and how to address an illness that may affect employees.[6] You may (and should) screen all people who visit your workplace and retain a daily log of all present in the workplace each day. Visitors or employees who have COVID-19 symptoms or who have come into contact with a COVID-19–positive individual may be restricted from entering the workplace. Anyone feeling ill should be required to stay at home or go home. Employees may (and should) be required to stay away from the workplace for the isolation period if they display symptoms. Again, these are the policies we follow at our offices.

DEVELOPING COMMUNICATION PLANS AND TRAINING

You should make sure that all visitors and employees understand your COVID-19 safety plan policies and procedures.[7] This means, at a minimum, that employees should be trained about those policies and procedures. Signage and prior notice (e.g., via email) to all visitors should clearly communicate your policies to visitors in addition to orally communicating the same to them upon their arrival. It is incumbent on the employer to ensure compliance with these initiatives.

MONITORING YOUR WORKPLACE AND UPDATING PLANS AS NECESSARY

You should continue to monitor your plan to identify new areas of risk or concern after its implementation.[8] You should obviously update your policies and procedures to address new risks or concerns.

ASSESSING AND ADDRESSING RISKS FROM RESUMING OPERATIONS

It is unlikely that your clinic has been out of operation for a large portion of time. If it has, however, you may need to manage additional risks arising from the effective restart of your business.[9] This may involve developing a training plan for new staff and for changes to your workplace, such as the use of new equipment or products.

COVID-19 LIABILITY

We turn now from the creation and implementation of the safety plans to what may happen if you fail to adopt or sufficiently adhere to those plans.

The development of a COVID-19 safety plan is a critical step for minimizing the risk of transmission in your workplace. While a safety plan will limit some transmission, the reality is that given the nature of COVID-19 and the Omicron variant, it is unlikely to prevent all transmission. An optimistic assessment is that transmission may still occur in your workplace. An arguably more realistic view is that it almost assuredly will. It has in our workplace. Either way, employers and employees both must understand their rights concerning COVID-19 liability.

THE COVID-19 RELATED MEASURES ACT[10]

On July 10, 2020, the Government of British Columbia enacted the COVID-19 Related Measures Act to address legal and practical issues concerning the province’s restart plan. The following month, the province also enacted the COVID-19 (Limits on Actions and Proceedings) Regulation[11] (under the COVID-19 Related Measures Act. While we do not necessarily suggest you put these particular pieces of legislation on your “to read” list, they are relevant to our discussion here. The regulation protects employers from civil liability for damages resulting, directly or indirectly, from a person being or probably being infected or exposed to COVID-19. The entirely admirable purpose of the regulation is to prevent undue fears of civil liability arising from claims for exposure to or transmission of SARS-CoV-2. The intent is to prevent the fear of such potential liability from discouraging people from operating businesses and other services that British Columbians rely on during the pandemic.[12] Again, an entirely sound and desirable policy goal.

The following acts are protected from civil liability:

- The operation or provision of an essential service
- An activity that has the purpose of benefiting the community or any aspect of the community, including in relation to the promotion of health or the provision of services to a vulnerable or disadvantaged person or group, among others
- An activity, including a business, that is carried on for direct or indirect gain or profit

The COVID-19 (Limits on Actions and Proceedings) Regulation protects the owners of a business from civil liability. Notably, it also protects those acting on their behalf, including employees.

Perhaps even more significantly, however, is that the regulation does not protect against conduct that constitutes gross negligence. And here is the key part: it does not protect individuals who do not follow, or do not reasonably believe they are following, all applicable public health guidance. This bears repeating: it does not protect you if you do not follow the public health guidance provided, guidance such as the requirement for . . . yes, you guessed it . . . COVID-19 safety plans.

So if you follow all applicable public health guidance, you should be protected from civil liability for exposure to or transmission of SARS-CoV-2. If you do not, however, you may not be protected from such civil liability, at least not by operation of this statute and regulation. Thus, dear reader, I assume you will agree that the importance of a safety plan takes on a different complexion when viewed in this context. Getting sued rarely makes your day. Losing the lawsuit usually ruins it. If you disentitle yourself to the protections afforded by the statute and regulation mentioned above, you have only made it more likely that you will lose any lawsuit for such damages brought against you. That is not a legal strategy most lawyers would recommend.

At the risk of repeating myself, let me summarize this important point. The requirement for a safety plan is a public health guidance. Should you elect to ignore it, you are likely to be found to have waived the protection against liability afforded by the COVID-19 Related Measures Act and regulation in this case. We strongly recommend you do not do that.

FINAL THOUGHTS

This column presents a general overview of those things you should keep in mind when developing your COVID-19 safety plans—and what may happen should you elect not to do so. The circumstances of your workplace may be unique and accordingly, may require unique policies specifically designed for your workplace that are not contemplated herein.

You are not required to submit your safety plan to WorkSafeBC or any other public body for approval, but it is nonetheless critical that you understand that you are required to have it in place. If you do, it is likely that you will be protected from civil liability for damages resulting, directly or indirectly, from a person being or likely being infected or exposed to COVID-19 at your workplace. If you do not, however, you may be effectively waiving that protection. We strongly advise against doing so. WCV

[1] CBC News, “With Omicron Dominating, Businesses Need Plans for Staying Open as Staff Get Sick, Top Doctor Says,” January 4, 2022, online at: www.cbc.ca/news/canada/british-columbia/covid-19-update-bc-jan-4-2022-1.6303907.
[2] WorkSafeBC, “PHO Order Requires Employers to Re-Activate COVID-19 Safety Plans,” January 2022, online at: www.worksafebc.com/en/covid-19/covid-19-prevention.
[3] WorkSafeBC, “COVID-19 Safety Plan,” January 2022, online at: www.worksafebc.com/en/resources/health-safety/checklist/covid-19-safety-plan-0821?lang=en.
[4] WorkSafeBC, “COVID-19 Safety Plan,” January 2022, online at: www.worksafebc.com/en/resources/health-safety/checklist/covid-19-safety-plan-0821?lang=en, page 1.
[5] WorkSafeBC, “COVID-19 Safety Plan,” January 2022, online at: www.worksafebc.com/en/resources/health-safety/checklist/covid-19-safety-plan-0821?lang=en, page 2.
[6] WorkSafeBC, “COVID-19 Safety Plan,” January 2022, online at: www.worksafebc.com/en/resources/health-safety/checklist/covid-19-safety-plan-0821?lang=en, page 8.
[7] WorkSafeBC, “COVID-19 Safety Plan,” January 2022, online at: www.worksafebc.com/en/resources/health-safety/checklist/covid-19-safety-plan-0821?lang=en, page 8.
[8] WorkSafeBC, “COVID-19 Safety Plan,” January 2022, online at: www.worksafebc.com/en/resources/health-safety/checklist/covid-19-safety-plan-0821?lang=en, page 9.
[9] WorkSafeBC, “COVID-19 Safety Plan,” January 2022, online at: www.worksafebc.com/en/resources/health-safety/checklist/covid-19-safety-plan-0821?lang=en, page 9.
[10] SBC 2020, c 8. The act is scheduled to be repealed on December 31, 2022, as of now.
[11] BC Reg 204/2020.
[12] BC Ministry of Attorney General, “Information Bulletin: COVID-19 (Limits on Actions and Proceedings) Regulation,” August 6, 2020, online at www.lawsociety.bc.ca/Website/media/Shared/docs/about/covid/CivilLiability.pdf.

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IF YOU WISH TO SAVE IT. CUT OUT THIS PAGE IF YOU WISH TO SAVE IT. CUT OUT THIS PAGE

HOW A TRAUMA-INFORMED APPROACH CAN IMPROVE ANIMAL WELFARE AND RELIEVE WORKPLACE STRESS

BY AMY MORRIS, BA, MPP, AND CHANTELLE ARCHAMBAULT, BA

Veterinary medicine has always been a high-pressure field, and there is no doubt that this past year has created an even faster-paced environment. Between the wave of companion animal adoptions during COVID-19, the influx of new patients needing care, changing rules around animal monitoring, and an ever-growing labour shortage in the sector, there is a constant need for quick decision making. Slowing down may seem counterintuitive, but new research by the Vancouver Humane Society and a professor from Dalhousie University indicates that devoting a little more time to each case can actually save time and reduce stress in the long term.

When acting quickly, our human nature leads us to make assumptions as a shortcut to understanding a situation. Imagine that a client displaying anxious behaviours and wearing worn casual clothing brings in a long-haired cat with matted fur. For many people, the first assumption would be that the cat is neglected. However, that first reaction, the assumption, can be rooted in socially ingrained attitudes of prejudice and oppression. When we challenge our assumptions, we can gain a better understanding of the context that will lead to better long-term outcomes. Speaking with the client may reveal a host of circumstances beyond their control. Perhaps they are living on a low income with disability assistance; they took on this cat from a relative who could no longer care for her; they love the cat and are doing their best, but their chronic pain makes pet care difficult; they do not have the resources to take the cat to a groomer and are feeling overwhelmed and guilty.

Taking the time to understand the client's situation can turn their feelings of shame and guilt into a productive conversation, and the long-term impacts of that client's positive experience can be transformative. Clients who feel heard and respected are more likely to bring their companion animal in for care sooner, allowing a veterinarian to intervene when the animal is expressing subtle signs of being in need rather than when the situation has reached a crisis point. Seeing an animal when an issue first occurs or for preventive care can reduce the need for more aggressive, stressful, and costly treatments. It may also decrease the likelihood of a financially related euthanasia.

Some guardians face barriers to accessing veterinary care. Systemic barriers such as oppression and discrimination can place people at an increased risk of financial hardship. Hardship can also arise unexpectedly, so that people who could previously afford gold standard care for their pet experience difficulties after for instance, the loss of a job, an injury or illness, the loss of a family member, or a natural disaster.

A 2021 research article titled "Barriers to Care in Veterinary Services: Lessons Learned from Low-Income Pet Guardians' Experiences at Private Clinics and Hospitals during COVID-19" found that limited access to financial support created a major barrier to accessing veterinary care. One participant said she could not access urgent care for her animal in distress because she could not pay an $800 deposit. The perception of a lack of financial support can contribute to an animal guardian's stress in what may already be a high-pressure emergency situation. As one participant summed up, "I still have the fear if you can't pay for the bill, they may ask you to surrender the animal, and I didn't want to surrender the animal. I can feed her. She's loved." Many participants shared the fear that they would be encouraged to surrender their animal if they could not afford treatment—and indeed, this fear is backed up by statistics. Financial difficulties are one of the top five reasons cats and dogs are surrendered to shelters. When asked what factors would have helped them access veterinary care for their companion animals, those interviewed offered several possible accommodations. Cost-related suggestions included payment plans and compassionate pricing.

The guardians also pointed out that a change in perspective could improve the interactions between veterinary staff and low-income pet guardians. A conversational approach that recognizes the strengths of resilience, resourcefulness, and compassion in low-income people can make a difference in the outcome. One interviewee shared, "People who live in poverty or are low income are more willing to rescue animals . . . People who are poor will take on animals that have health problems or . . . have special needs, [and] help take care of them because of [their] level of compassion." Recognizing these acts of compassion is a trauma-informed practice that can help the client feel valued and provide a strong foundation on which to build a productive interaction.

The trauma-informed approach is already used in social services and health care to improve client and patient outcomes. In essence, the approach aims to provide more relevant care in the present by considering each person's context and past, specifically, their trauma. Traumas can make certain words and events triggering. People who have been placed at risk by structural and systemic barriers and discriminations related to poverty, (dis)ability, race, sexual orientation, gender identity, or a myriad of other factors are more likely to have various traumas in their lives, including a history of negative experiences accessing services from organizations or businesses.

Traumatic experiences can affect a person's sense of safety, confidence in decision making, and ability to regulate emotions and navigate relationships. It is also common for those who have trauma to feel fear, shame, helplessness, and powerlessness. According to the Klinic Community Health Care Centre, a trauma-informed approach considers the person and their needs holistically and "recognize[s] that the core of any service is genuine, authentic and compassionate relationships." Other authors define trauma-informed care as an approach

"CLIENTS WHO FEEL HEARD AND RESPECTED ARE MORE LIKELY TO BRING THEIR COMPANION ANIMAL IN FOR CARE SOONER."

based in safety, choice, collaboration, trustworthiness, and empowerment. In practice, these principles can present as creating welcoming spaces, providing clear messages, involving the client in decision making, and maintaining respectful boundaries—many procedures you may already incorporate into your model of care.

Past traumas in accessing services and financial barriers have resulted in many low-income pet guardians avoiding accessing veterinary care for long periods of time. This can particularly affect access to preventive care. A study titled "Access to Veterinary Care: Barriers, Current Practices, and Public Policy" found that more than one in four respondents, who were disproportionately low income, experienced barriers to veterinary care for at least one of their pets in the recent past. These guardians may need a bit of extra time devoted to listening to their concerns and setting their minds at ease about benign conditions. Responding to their specific needs and involving them in the decision-making process, including decisions around preventive care, can encourage them to value and prioritize veterinary care in the future.

By stepping back to challenge assumptions and collaborate with a client through a trauma-informed approach, veterinarians can empower their clients to make informed decisions about their animals' health. In turn, the improved access to care for low-income pet guardians can make sure that animals' needs are met, avoid preventable health emergencies and euthanasia, and improve the experiences of animal guardians and veterinary staff.

SIX STEPS YOU CAN TAKE TODAY FOR A TRAUMA-INFORMED PRACTICE

1. **Build from your client's strengths by pointing to what they're doing right.** Take time to listen without judgment to the issues the client is concerned about and show appreciation for the thought and care the client has put into caring for their pet.
2. **Make your client an active part of the decision-making process** by explaining the pros and cons of each treatment option along the spectrum of care. This includes quality low-cost options as well as higher-cost options.
3. **Explain procedures and next steps in simple, accessible language.** If your client will need to monitor or provide follow-up care at home, ask them if they would like written instructions.
4. **Make information about fees easily accessible,** either through signage or verbally during the appointment.
5. **Get familiar with options for financial assistance for veterinary care in your area.** Create a "resource centre" in your waiting room with materials from local organizations that offer free and low-cost services for both animals and humans.
6. **Engage in trauma-informed training opportunities.** The Vancouver Humane Society offers a free course on implementing a culturally safe and trauma-informed approach in the animal services sector. Register at vancouverhumane.ca/training.

VETERINARY AND OUTREACH ASSISTANCE SERVICES IN BC

Spay/Neuter Programs
Low-cost spay/neuter resources around the province: spca.bc.ca/programs-services/community-work/low-income-spayneuter-programs
Balfour's Friends Foundation
Veterinary assistance in Victoria and Vancouver Island. Veterinary clinic must apply: balfoursfriends.com/contact-us/veterinary-clinic-request; balfoursfriendsfoundation@gmail.com
BC SPCA
Charlie's Pet Food bank in Vancouver provides assistance with food and pet care supplies to people who are living in SRO, homeless, or registered with Charlie's: spca.bc.ca/programs-services/community-work/charlies
Veterinary assistance and low-cost vaccinations in Kamloops and area: www.kamloopsclinic.ca/services; 250.376.6055
Veterinary assistance and low-cost vaccinations in Prince George and area: www.pgclinic.ca; 250.562.5556
Food-related assistance around the province, inquire at the call centre: 855.622.7722
Emergency boarding resources around the province, inquire at the call centre: 855.622.7722
Elderdog
Assisting senior dog guardians with varied needs province-wide: www.elderdog.ca/Contact.aspx
Hugabull
Veterinary assistance province-wide; veterinary costs and dog spaying and neutering; food-related assistance: www.hugabull.com/reach-program; hugabullreach@gmail.com
In Memory of Maggie May
Veterinary assistance province-wide: inmemoryofmaggiemay.ca/criteria; maggiemay99@telus.net
Langley Animal Protection Society
Veterinary assistance in Langley and the Fraser Valley: www.lapsbc.ca/about-us/special-programs/majors-legacy-fund
Nana Foundation
Veterinary assistance on Vancouver Island: 250.477.2062
New Westminster Animal Services
Veterinary assistance in New Westminster: www.newwestcity.ca/animal-services; 604.519.2008
Paws for Hope
Veterinary assistance in Vancouver, Surrey, Abbotsford, Chilliwack, Maple Ridge: www.pawsforhope.org/what-we-do/better-together; 778.991.7729
Emergency boarding in Metro Vancouver, the Fraser Valley, and North and West Vancouver: www.pawsforhope.org/what-we-do/no-pet-left-behind; 604.506.9297
Veterinary assistance for women in shelters with pets in Metro Vancouver, the Fraser Valley, and North and West Vancouver: www.pawsforhope.org/what-we-do/no-pet-left-behind; 604.506.9297
Pets Matter Foster Care Society
Emergency boarding in the Lower Mainland: www.petsmatter.org/whatwedo.html; 604.945.9048
Prince George Humane Society
Cat behaviour resources: www.pghumanesociety.ca/programs; kelsey@pghumanesociety.ca
Royal City Humane Society
Veterinary assistance in New Westminster: www.rchs.bc.ca; 604.524.6447
Surrey Cat Coalition
Food-related assistance for cats in Surrey: www.surreycats.ca/programs
Vancouver Humane Society
Veterinary assistance for emergency, illness, or injuries, province-wide: vancouverhumanesociety.bc.ca/vet-assist; 604.336.1390
Veterinary assistance for women seeking secure housing, including spaying and neutering, vaccination, and deworming: vancouverhumanesociety.bc.ca/helping-women-and-pets-in-crisis-application-form; 604.336.1390
VOCAL: Voice of Concern for Animal Life
Veterinary assistance on Vancouver Island: vocalvictoria.com; 250.479.8418 or 250.598.1758 WCV

To save space, the references are made available on the Chapter's website at www.canadianveterinarians.net/documents/west-coast-veterinarian-spring2022-list-of-references.pdf.

A REVIEW OF SBCV'S PRIOR CE SESSION

FEATURING PHIL ARKOW ON THE VIOLENCE LINK

BY LOUISE LATHEY, BLES

In previous articles we have addressed the link between animal and human abuse and how members of the veterinary community can help both their animal patients and human owners. As an educator, author, and researcher, Phil Arkow is no stranger to this link. On November 6, 2021, Mr. Arkow presented at the SBCV Chapter Fall Conference and Trade Show on the "Violence Link and the Veterinarian's Role."

Phil Arkow has been involved in animal welfare since the early 1970s and is now the coordinator of the National Link Coalition, which was born in 2008. He began his presentation at the conference by taking us back to the early 1990s, when the anti-violence and enforcement sectors were only just recognizing that interpersonal violence may have an effect on children, and animals were not factored in at all. Using a common mantra that we unfortunately still hear today, many agencies, when faced with animal abuse during the course of their own human-related work, would say that it was "not their job" or "not in my mandate" and would pass the case over to an animal welfare or animal control agency, thereby allowing information to fall through the cracks and failing to record the link between the two types of violence.

Arkow, along with other experts in the field, has spent a large portion of his career working to make the violence link known and used as a means for agencies to work together. Arkow notes that the link "brings it all together from a holistic world view."

Until recently, it was very common for sectors to live in their own silos (as is still the case to some extent, but not nearly as much) and therefore, each agency would have no idea of any potential cross-reporting that could be done. But as Arkow and others expanded and strengthened their research and teaching on the violence link, the information became more widely known.

Arkow notes that domestic violence and the link to animal cruelty can have tremendous effects on the survivors and on the children of the survivors. It has been documented that children who witness animal abuse are at increased risk of growing up to be abusers themselves. Other areas of the link were touched on in this presentation, including animal hoarding, animal fighting, and animal sexual abuse—different types of animal crimes all potentially linking to human violence or harm.

The view of veterinarians as "the other family doctor" has been noted in other articles and Arkow promoted this phrase in his presentation. He spoke of veterinarians having a crucial role in spotting animal abuse and potentially human abuse. Veterinarians can be the first line of defense and only need to report a "reasonable suspicion." In BC, as in 21 states in the United States, there is a mandate to report. This mandate is important as it takes the weight of the decision off the veterinarian—they simply have to do it.

Arkow notes that last year there were approximately 2,500 calls to the National Domestic Violence Hotline in the US. Out of those calls, 97 per cent of people had pets and included them in their decision making of whether to leave their abuser or not. As animals are seen as a "soft target" or easy to harm, the survivors know that their abuser will likely harm the animal as a means of coercive control. This is why, as has been mentioned in previous articles, women delay leaving their abusers if they do not have a safe place for their animals.

In the training, Arkow spoke about the power and control wheel, which has been pictured in previous articles, and where animal abuse fits into this pattern. The power and control wheel is an important diagram to keep coming back to, as it allows people in multiple sectors to get a visual understanding of how far domestic violence can reach beyond physical harm to a partner.

Moving to a different type of animal abuse, Arkow discussed the four types of animal hoarding, which are mental illness, overwhelmed individual or agency, the rescuer, and the exploiter. Arkow stated that hoarding as a mental illness is likely due to an attachment disorder that makes parting with the animal seem like parting with a piece of oneself. Overwhelmed individuals or agencies start with good intentions but become overburdened with the volume of animals. Rescuers who hoard animals quite often start with good intentions as well; however, when they become overwhelmed, they cannot recognize it and enter a state of denial. Exploiters feign being rescuers but are often hoarding animals for the purpose of sale or exploitation, and their underlying reason for taking in animals is malicious and self-serving in nature.

The "DV [domestic violence] and the DVM" section of the presentation addressed the introduction of veterinary social work. The role of a veterinary social worker would be to connect the human side of the veterinary world and the animal side of the social work world to increasing the welfare of animals and humans and strengthen the bonds between them. Arkow suggested that veterinary offices should (and many do) have a list of social service agencies available in their area and a list of subsidies or funding for survivors of domestic violence.

He brought this section back to the mandated reporting for veterinarians and how a veterinary social worker could assist in this responsibility. He noted that the primary considerations in cases of suspected animal abuse should be "safety first, treat the animal, and animal cruelty is a legal not medical determination." Essentially, it is not up to the veterinarian to confirm whether or not animal abuse occurred, but that they feel it might have.

Finally, Arkow finished his presentation with a mention of the US's National Incident-Based Reporting System, an FBI reporting tool. Since 2016, this database has tracked animal abuse statistics, and there has been a steady increase in reports by law enforcement agencies over the past few years. The database now tracks different types of animal cruelty: simple neglect (failure to provide), serious neglect (hoarding), physical abuse (non-accidental injury), organized abuse (animal fighting), and sexual abuse. Although it is up to each law enforcement agency to provide these statistics to the database, more and more agencies are recognizing the importance of this data and why it needs to be included.

For more information on the violence link and Phil Arkow, sign up for the National Link Coalition newsletter and keep informed of upcoming training, new laws and cases, and research on the link. WCV

To save space, the references and list of resources are made available on the Chapter's website at www.canadianveterinarians.net/documents/west-coast-veterinarian-spring2022-list-of-references.pdf.

PHOTO BY JOONAS SILD/UNSPLASH.COM

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KIMBERLY HOOI, BVSC (HONS), DVSC, DACVIM, graduated from the University of Sydney with a Bachelor of Veterinary Science in 2011. She worked in general practice in Sydney, Australia, for one year before pursuing an internal medicine internship at the Animal Referral Hospital in Sydney followed by a rotating internship at the Ontario Veterinary College. She then went on to complete a residency in small animal internal medicine and a Doctor of Veterinary Science degree at the Ontario Veterinary College in 2018. Since becoming a Diplomate of the American College of Internal Medicine in Small Animal Internal Medicine, she has worked in private referral practice in Australia, at the University of Montreal, and the University of Illinois and now works at Boundary Bay Veterinary Specialty Hospital in Langley. Her interests are in minimally invasive urinary tract procedures and interventional radiology procedures. Outside of work, Dr. Hooi enjoys scuba diving, sailing, skiing, and kayaking.

ELAINE KLEMMENSEN, DVM, CEC, is always up for an adventure, especially if it involves people, pets, and creating connections in veterinary medicine. A self-described nerd about leadership, workplace culture, and organizational development, Dr. Klemmensen is a Certified Executive Coach holding the ACC-level certification with the International Coaching Federation as well as a certificate in Values-Based Leadership. Dedicated to helping veterinarians and their teams move from surviving to thriving, she founded Evolve Leadership Coaching and Consulting and is currently studying visual facilitation and strategic thinking. She lives in the beautiful West Kootenays and when not learning something new is most likely exploring the world by bicycle with her husband, Rob.

FIONA LAMB, BSc, completed her Bachelor of Science at the University of British Columbia and her thesis with the Animal Welfare Program. Her research focuses on human-animal relationships of companion animals. Currently, she is completing her Doctor of Veterinary Medicine at the Western College of Veterinary Medicine as part of the class of 2025.

LOUISE LATHEY, BLES, completed her Bachelor of Law Enforcement Studies at the Justice Institute of British Columbia and uses her knowledge of the law in her work at the BC SPCA. Her passion for animals has led to cross-sector collaboration on helping vulnerable people and pets. Her master's research in criminal justice at the University of the Fraser Valley explores the rationale behind animal cruelty with a focus on how it relates to other types of crime.

AMY MORRIS, BA, MPP, is the executive director of the Vancouver Humane Society and also volunteers as the president of the board of directors for the Animal Welfare Foundation of Canada. She worked with the Canadian Veterinary Medical Association to develop the 2018 Code of Practice for Canadian Kennel Operations and the yet-to-be-released updated Code of Practice for Canadian Cattery Operations. She holds a Master of Public Policy from Simon Fraser University with a thesis focused on regulating dog breeding to improve their well-being. As a member of the Canadian Animal Assistance Team, Ms. Morris has a deep appreciation for the work of veterinary professionals who commit themselves to providing outreach support for communities in need.

ALEXANDRA PROTOPOPOVA, PhD, CAAB, has a doctorate in behaviour analysis from the University of Florida. She is an assistant professor in the University of British Columbia's Animal Welfare Program. Her research focuses on the physiology, behaviour, and welfare problems experienced by companion animals housed in shelters and pet homes.

ADRIANA REGALADO, MVZ, AVDC, graduated from the University of Guadalajara, Mexico, in 2000. During her internship at the Small Animal University Hospital at the University of Guadalajara, she published a manual of gastroenterology of dogs and cats. She moved to Vancouver in 2005, where she worked as a veterinary technician while preparing for her NAVLE and CPE exams. Dr. Regalado joined the West Coast Veterinary Dental Services team, where she completed a residency program and became a Diplomate of the American Veterinary Dental College. Dr. Regalado has a particular interest in BOAS and brachycephalic dental pathologies.

CLARE TOMPKINS, BSc, DVM, practised as a large animal veterinarian for seven years in Ontario before seeing the light and moving to BC in 2001 to join a mixed practice. She was a practice owner for 15 years but now works as a locum, which allows more time for being a 4-H leader, volunteering on veterinary committees, riding her horse through the mountains, and working on a Master of Equine Science. She lives on Vancouver Island with three horses, three cats, and two sighthounds.

KAREN VAN HAAFTEN, DVM, DACVB, graduated from Ontario Veterinary College in 2009. After several years in small animal private practice, she developed a passion for clinical behaviour and completed a residency at the University of California, Davis. Now a board-certified veterinary behaviourist, she is the senior manager of behaviour and welfare at the BC SPCA. In this role, she supports 36 networked sheltering branches with their behaviour caseload and also consults on cruelty investigation cases and provincial animal welfare policy work. Her research interests include psychopharmacology, behaviour modification for undersocialized cats, and humane training methods. She lives in Vancouver with two fluffy cats.

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[1]Logan EI, Finney O, Hefferren JJ. Effects of a dental food on plaque accumulation and gingival health in dogs. *J Vet Dent*. 2002;19(1):15-18.