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SEPTEMBER 2020 | Nº 40

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OTITIS IN THE JUVENILE TO ADOLESCENT PATIENT

ORAL EXAMINATION OF THE PEDIATRIC AND JUVENILE PATIENT, PART 2

STRATEGIES TO IMPROVE ANTIMICROBIAL STEWARDSHIP IN VETERINARY PRACTICE

WHICH LIFESTYLE IS BEST FOR CATS?

INTRODUCING OUR NEW COLUMN: FROM A LAWYER

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COREY VAN'T HAAFF EDITOR

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
Photo by Denise Hitt.

OVID-19 presented the Chapter with many challenges. First and foremost was keeping all our members and other veterinarians well informed, which was difficult as we knew little and our understanding was evolving as fast as we could inform you. We were fortunate that our board member and Chapter liaison to the CVMA, Dr. Chris Armstrong, was on the CVMA National Issues Committee and was a member of the COVID-19 working group. We were fully in the loop due to her dedication and uncountable extra volunteer hours as well as the CVMA's commitment to accuracy and the CVBC's interest in sharing information with us via

Zoom was new to us at the Chapter, and we found we needed to become experts in order to deliver our Chapter's Spring Sunday CE Sessions, from testing the tech-

nology to training the presenters; from working with sponsors to ensuring each of you who attended had a worthwhile experience. We were happy with the results.

One of the unexpected benefits of meeting online was seeing many of you in your homes and getting a peek at your dogs and cats—and in one very fun instance, your children. Annabelle and her brother Oliver joined their mom from Kamloops for our June 7 CE session and emailed us some sketches of the speakers. I was, in turn, able to share some of my backyard baby bear videos to keep the kids entertained.

The Chapter continues to work on delivering a new program to our members who have expressed an interest in helping those who are fleeing domestic violence but whose animals are preventing them from leaving. We have worked with a lawyer on developing waivers to protect the Chapter and any veterinarian who wishes to participate. If you haven't already, you should hear more about this shortly.

As part of our commitment to animal welfare, our Animal Welfare Committee has asked the Editorial Committee to keep the issue of domestic violence, which presents very real risks to animals and pets, front and centre by publishing articles to help inform our readers. It is an endeavour near and dear to my heart. I conduct my life to try to protect as many animals as possible, mostly dogs, from distress or harm, and I've been active in women's equal access to opportunities and in supporting women to reach their potential since I was a teen.

As I considered the impact Chapter activities may have in helping those fleeing domestic violence, and in helping to keep their animals safe, I happened to see a new work by an artist whose work is on display in our home. Her portrayal of victims of domestic violence, *Trophy Wives*, was a very visible reminder to me of who we are helping and why. I purchased the piece and hung it in my office overlooking my work so that every day I can remember that there are many people and many animals who need our help, and that I, too, can play a small role in making their lives better.

Once again, the Chapter was fortunate to receive funding for three part-time summer students to assist with developing some promotional whiteboard videos and updating our list of veterinarians. We thank everyone who participated in updating their information. We are very proud of these three students. Zikora (Ziko) Dozie worked with us two years ago and is attending UBC Okanagan studying engineering. His thoroughness, attention to detail, and wonderful professionalism have benefited the Chapter. Gurleen Malhi returned again from last summer, and after high school, she is keen to pursue her interest in psychology. Her unending positivity and her genuine interest in the people she speaks to make her a delightful part of our team. And Mahnoor (Noor) Faisal contacted us when she saw an ad about our grant and impressed us with her enthusiasm and interest in business and marketing. She starts at UBC Sauder School of Business in September.

Duttaeff
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OPHTHALMOLOGY

Jacqueline Pearce DVM, DACVO



NEUROLOGY

Danielle Zwueste DVM, DACVIM



SURGERY

Sherisse Sakals DVM, DACVS



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SURGICAL SERVICE UPDATE

Sherisse Sakals DVM, DACVS

We're excited to announce that Dr. Sakals has joined our Surgery department and is now accepting referrals. To refer to Dr. Sakals, please use our online referral form.



INTERNAL MEDICINE UPDATE

Casey Gaunt DVM, MVetSc, DACVIM

Starting September 2020, Dr. Casey Gaunt will be joining Dr. Ford to grow our Internal Medicine department and expand the services available to you and your patients.



WCV CONTRIBUTORS



JANGI BAJWA, BVSc & AH, Dipl. ACVD, is a board-certified veterinary dermatologist with the American College of Veterinary Dermatology. He works at the Veterinary Dermatology and Ear Referral Medical Clinic in Surrey, BC. He is also a consultant with the Veterinary Information Network and is a dermatology feature editor for the Canadian Veterinary Journal. His dermatology interests include otitis and its treatment, microbial resistance. canine and feline allergic disease, and continuing education of veterinary professionals and pet



ANGELICA BEBEL, DVM, Dipl. AVDC, began her veterinary career as a Registered Animal Health Technician. In 2014, she graduated from the Western College of Veterinary Medicine program. Following graduation, she practised general medicine in Vancouver before starting a residency in veterinary dentistry at West Coast Veterinary Dental Services in Vancouver. She received her Diplomate status in the American Veterinary Dental College in 2018 and has continued working locally at West Coast Veterinary Dental Services.



MARINA VON KEYSERLINGK, BSc, MSc, PhD, grew up on a cattle ranch in British Columbia. She joined UBC's Animal Welfare Program in 2002 and was appointed as an NSERC Industrial Research Chair in 2008. She is recognized internationally for her research on the care and housing of dairy cows and calves.



the Chapter

ELAINE KLEMMENSEN, DVM, is always up for an adventure, especially if it involves people, pets, and creating connections within the veterinary profession. Her adventures in veterinary medicine have included being an associate veterinarian partner, practice owner, locum and international volunteer. Passionate about leadership development and workplace culture, she recently embarked on her latest adventure, founding Evolve Leadership Coaching and Consulting, where she is determined to help veterinary leaders discover the "secret sauce" that will move their team from surviving to thriving.



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 BCSPCA. 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.



KATELYN MILLS, BSc, began to explore the field of animal welfare science during her undergraduate degree in Applied Animal Biology at the University of British Columbia. She is currently completing a PhD in UBC's Animal Welfare Program, working with veterinarians and farmers to study management challenges in the dairy industry. Her previous work includes a study of medically unnecessary surgeries, such as tail docking and ear cropping.



NIKI MONTGOMERY is the Hospital Manager at Night Owl Bird Hospital.



MARGIE SCHERK, DVM, Dipl. ABVP (FELINE), graduated from Ontario Veterinary College in 1982. In 1986 she opened Cats Only Veterinary Clinic in Vancouver, practising there until 2008. Dr. Scherk became board certified in feline practice by the American Board of Veterinary Practitioners in 1995, recertifying in 2004 and 2014. She founded the feline medicine folder on VIN in 1994. An active international speaker and past-president of the AAFP, Dr. Scherk has authored numerous book chapters and scientific papers and is the co-editor of the Journal of Feline Medicine and Surgery.



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prior written permission of the CVMA-SBCV Chapter. All efforts have been made to ensure the accuracy of information

in this publication; however, the CVMA-SBCV Chapter accepts no responsibility for errors or omissions. The views presented in West Coast Veterinarian are those of the respective contributors and do not necessarily represent

KATHRYN WELSMAN, DVM, has written for West Coast Veterinarian for nearly 10 years and enjoys telling a story. During that time, she's worked as an emergency veterinarian, general practitioner, and CVBC inspector. She's volunteered as a board member for the Langley Animal Protection Society and as a veterinarian for the BC Wildlife Park. Recently, she has taken on an advisory role with Ned's Wish, a non-profit society that assists with medical bills for retired police dogs. Her biggest passion is working dogs.

WEST COAST VETERINARIAN ISSUE 40

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EDITORIAL COMMITTEE

Sarah Armstrong, DVM, Chair Christiane Armstrong, DVM Rick Stanley, DVM Kathryn Welsman, DVM

FDITOR

Corey Van't Haaff Email: wcveditor@gmail.com

ART DIRECTOR

Karim Sharobim, BDes

COPY EDITOR Eva van Emden

PUBLISHER CVMA-SBCV CHAPTER

Email: cvma-sbcv@cvma-acmv.org Telephone: 604.406.3713 PO Box 21088 Maple Ridge Square RPO Maple Ridge BC V2X 1P7 www.canadianveterinarians.net / SBC\

PUBLISHER'S ASSISTANT

Adriana Silva

AD SALES

Inga Liimatta Email: ingal@telus.net Phone: 604.420.0663

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VETERINARIAN



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A YEAR IN THE LIFE OTITIS IN THE JUVENILE TO ADOLESCENT PATIENT

ON A WING AND A PRAYER





SPECIALIST COLUMN

ORAL EXAMINATION OF THE

PEDIATRIC AND JUVENILE

PATIENT, PART 2

THE INDOOR-**OUTDOOR CONTROVERSY** WHICH LIFESTYLE IS BEST FOR CATS?





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FROM THE CVMA-SBCV CHAPTER PRESIDENT
FROM THE CVMA PRESIDENT

C is rightfully proud of having two CVMA award winners in 2020. I've had the opportunity to work for a short time with Dr. Bettina Bobsien, winner of the CVMA Humane Award, and can confirm she is most deserving of this award. Her eagerness to include every member of our own Animal Welfare Committee in an enlightening dialogue around animal welfare is nothing short of remarkable. Her work as the Chapter's ex officio representative on the CVMA Animal Welfare Committee made such an impact that the CVMA asked her to chair the committee. In addition to Dr. Bobsien, in my career I have had the privilege and honour to meet and get to know incredible people who have impacted me in more ways than just the professional. As I sit at my keyboard in the midst of our "new world order," I want to mention two of these people who have influenced me over the many, many years we have known each other and worked closely together.

Dr. Suann Hosie has finally been honoured with the CVMA Small Animal Practitioner Award. This has been long overdue for an incredible pioneer in veterinary emergency medicine. After graduating from the University of Guelph in 1966, she was instrumental in starting one of the first emergency clinics in North America in the Bay Area of California in 1971. By 1978, she moved back home to Canada, settling in the lower mainland of BC. Not one to slow down, Suann built and opened the Vancouver Animal Emergency Clinic in 1978. While building her business and growing her reputation for inclusiveness with the veterinarians who sent her patients, she somehow found the time to become heavily involved in volunteering with the BC Veterinary Medical Association working on various committees and serving on the council, including a year as president in 1992. After many years of devoted work, Suann is in the retirement stage of her career but is still devoted to helping her fellow veterinarians and volunteering for the SBCV.

Our paths have crossed over the years, and I have always enjoyed talking with Suann. She is so amazingly forward-thinking and is always looking at the bigger picture. She has regaled me with stories of her travels, including a foreign horseback riding trip she did one year. Suann has made a huge impact on many of us over the years for her dedication to animals, their owners, and her fellow practitioners. I hope that I have been able to pick up even a fraction of the multiple good traits she has!

Thank you, Suann, for your impact on our profession locally, provincially, nationally, and internationally. You are an inspiration to many people. I look forward to being able to work with you on future endeavours for our profession as well as hearing more stories of your travels. Congratulations on your highly deserved award.

Dr. Doug Freeman has been at the helm of WCVM for 10 years but unfortunately has had to step away from another term as dean for personal reasons. While serving on the SBCV board, I have been blessed with the opportunity to get to know Doug over the years and have come to admire his skills as a true leader and excellent administrator. He has always been an open communicator who cared about all of the different facets of WCVM. He was involved with the expansions at the facility as well as being an innovative forward thinker. During his two terms as dean, Doug has also been able to attract excellent staff to work at the college to continue to improve on the education of the undergraduates. He was proud of the clinical simulation lab—the BJ Hughes Centre for Clinical Learning—and the recently completed Livestock and Forage Centre of Excellence. When I visited the campus, his pleasure at showing us the changes and improvements in the facilities was obvious.

When Doug would talk about the college, he always showed concern for the students and was proud of their accomplishments. He was equally proud of the research projects that continued to grow within the college or in collaboration with other centres on campus or in other provinces. He had a right to be pleased with how WCVM grew during his tenure. I will also remember him as one of the first people to talk about the One Health initiative of trying to bring together the health professions for all species on the planet, which we are now seeing happen through this COVID-19 situation.

The last few years have been hard for the college administration due to Alberta dropping out of the interprovincial agreement that funds WCVM. For three years now, we have known about the potential opening of the 20 seats that Alberta would not be funding starting this fall, and we have looked at this as an opportunity to increase the number of BC students. Doug was very supportive, and he and Associate Dean Dr. Chris Clark provided us with the information we needed to help us raise this issue with our government. Doug and Chris delayed assigning the extra seats as long as possible to help the three remaining provinces take advantage of the openings. Unfortunately no one stepped forward to help with their budgeting, and they offered 20 to 25 seats at international tuition rates.

I admire Doug for his cheerful attitude through difficult times and his willingness to help. His leadership and communication skills are exemplary. The changes he oversaw at our provincial veterinary school have been instrumental in making WCVM a renowned facility for teaching and research. We will miss him and wish him all the best in his future endeavours. Thanks, Doug, for all that you have done for the veterinary profession in our province and the rest of our country. You should be proud of what you accomplished during your years in Saskatoon.



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 BCSPCA 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, four horses, and four dogs and coaches youth soccer in his spare time.

s your CVMA president, it's my pleasure to provide you with updates on some of the CVMA's initiatives. We want you to know that the CVMA stands in solidarity with all CVMA members, veterinary professionals, human healthcare workers, and all Canadians during this difficult time.

ANIMAL HEALTH WEEK 2020

The CVMA is proud to have celebrated Animal Health Week across the country for 35 years! From October 4 to 10, 2020, the CVMA will raise awareness through the theme Understanding Zoonotic Diseases: Community Health—Animals and You, showcasing how Canada's veterinary professionals occupy unique positions within the national One Health community to support the fight against these diseases and how protecting animal health protects everyone's health. The key messages of the 2020 Animal Health Week are:

- Zoonotic diseases may be transmitted from animals to people, but they can be easily prevented
- Regular veterinary wellness checks can help protect you, your family, and your pet from zoonotic diseases
- Always wash your hands after being around animals, even if you did not touch them
- Talk to your veterinary team for information on zoonotic diseases

Visit the CVMA website (canadianveterinarians.net/practice-economics/animal-health-week-current) for prewritten social media posts, additional promotional tools, and more information to help clinics across Canada highlight the importance of understanding zoonotic diseases.

CVMA SUPPORTS DIVERSITY AND INCLUSION

The CVMA commits to diversity and inclusion and rejects discrimination or harassment based on grounds such as race, colour, ancestry, ethnic origin, place of origin, age, creed, religion, sex, gender identity, family status, marital status, or disability. We affirm that each human being is valuable and deserves to be treated with dignity and respect. Read the full statement on the CVMA website's Vision, Mission, and Priorities section.

MENTAL HEALTH AWARENESS WEEK

An average of 10 people die by suicide each day in Canada, making suicide the ninth leading cause of death. For every one suicide death, there are five self-inflicted injury hospitalizations, 25 to 30 suicide attempts, and 7 to 10 people's lives are forever changed by suicide loss. The CVMA and Merck Animal Health kick off It's Time to Talk about Mental Health in Veterinary Medicine Awareness Week in September. The 2020 campaign ran from September 6 to 12 and featured a one-hour webinar held on World Suicide

Prevention Day, Thursday, September 10 at 12 PM. Find more information at canadianveterinarians.net/mental-health-awareness-week.

JOINT STATEMENT ON THE ROLES OF VETERINARIANS IN PROMOTING ANIMAL WELFARE

The AVMA, the FVE, and the CVMA recognize that sentient animals are capable of experiencing positive physical and emotional states (or feelings), including but not limited to comfort and pleasure, as well as negative states, such as pain, fear, and frustration. Accordingly, animals deserve appropriate care, consideration, and respect; that is, animals should experience both a good life and a humane death. The AVMA, FVE, and CVMA recognize that veterinarians—as knowledgeable and accountable professionals—have a duty to take advantage of multiple opportunities to advocate for animal welfare at the individual and community levels, as well as through membership in their professional associations.

THE CVMA UPDATED ITS FREE-ROAMING OWNED, ABANDONED, AND FERAL CATS POSITION STATEMENT

The new position statement on free-roaming owned, abandoned, and feral cats states that the CVMA supports evidence-based, effective, humane initiatives to reduce the population size and the impacts of free-roaming owned, abandoned, and feral cats to promote animal health and welfare, public health, and ecological and environmental health. Read the rest of this position statement and access all CVMA position statements in the Policy and Advocacy section of our website.



Enid Stiles, BSc, MSc, DVM, completed a BSc in biology at the University of Ottawa before graduating with her DVM from the Ontario Veterinary College in 2000. Upon graduation and while working as a clinician, she went on to complete a Master of Clinical Sciences (Behaviour Medicine) at the University of Montreal. Dr. Stiles has been fortunate to work with people and animals around the world as a founding member of Veterinarians without Borders Canada. She works closely with Montreal-based cat and

dog rescue groups and has been a regular presence in print, television, radio, and social media in recent years, advocating for current national and international animal health issues. Her interest in veterinary behaviour medicine and animal welfare includes ending feline partial digital amputation (declawing) and teaching low-stress handling techniques in clinics. Dr. Stiles runs her own small animal practice, Sherwood Park Animal Hospital, with her husband Yannick Massicotte as co-owner and hospital manager. Dr. Stiles lives in Montreal with three children, a dog, two cats, and her husband. When she's not working, Dr. Stiles likes to go to the gym, ski, travel, and watch her children on the field or rink.

 $oldsymbol{10}$ | WCV | $oldsymbol{11}$

INTRODUCING THE NEW CHIEF **VETERINARY OFFICER**

BY RAYNA GUNVALDSEN, BSA, MSc, DVM

am thrilled to be joining the British Columbia Ministry of Agriculture as Chief Veterinarian. In this role I am responsible for food animal disease control policy and programs in BC. After gaining early experience in both swine and companion animal practice, my career has been largely public service focused, most recently with the government of Alberta and previously with the CFIA in Saskatchewan and on Vancouver Island. I received my DVM from WCVM and went on to earn a master's in Large Animal Clinical Sciences at the University of Saskatchewan. I'm looking forward to working with the CVMA-SBCV and its members.

I'm also pleased to continue Dr. Pritchard's regular articles for West Coast Veterinarian magazine. This quarter, I'd like to remind practitioners of the risk of Rabbit Hemorrhagic Disease Virus in BC and the continued availability of the RHDV2 vaccine from the Ministry of Agriculture.

Rabbit hemorrhagic disease, caused by the calicivirus RHDV2, was first diagnosed in BC in 2018 in feral rabbits near Nanaimo. A reportedly different strain of an RHDV2 has been spreading in the United States. Nevada, Texas, New York, California, New Mexico, Utah, and other states found their first cases in 2020 in both feral domestic and wild lagomorphs. This highly infectious disease can cause a range of symptoms including high fever, anorexia, cyanosis, neurological signs, and dyspnea, with a mortality rate of up to 100 per cent. Sudden death can be the only sign; some dead animals are found in good condition, occasionally with blood around the nose and mouth due to massive internal hemorrhage. Lesions are usually most severe in the liver, lungs, and trachea, and can include necrosis and disseminated intravascular coagulation. There are also chronic and subclinical forms of the disease, and carriers can shed virus for months. RHDV2 affects primarily European rabbits, from which most of our domestic and feral rabbits descend; however, the RHDV2 variant currently circulating in the US has also been shown to affect cottontails and some hares. The virus is hardy and resistant to disinfection. It survives at a wide range of temperatures and can spread via direct contact between live or dead rabbits, or by biting insects and on fomites, making biosecurity an important tool in preventing

the disease in domestic rabbits.

The Animal Health Centre continues to perform surveillance and testing for rabbit hemorrhagic disease at no charge. As of this writing (July 2020), there have been no detections in BC this year, but we continue our interest in tracking this disease. Dead wild or feral rabbits in good condition can be submitted through the Wildlife Health Program Lab. Please call 250.751.7246 to arrange for submissions. To submit owned rabbits for testing, please call the Animal Health Centre at 604.556.3003, or toll free at 1.800.661.9903.

To order vaccine, please contact me by email at rayna.gunvaldsen@gov.bc.ca, or by phone at 604.556.3013. Please also submit vaccine certificates to my email address or by fax to 604.556.3015. WCV



Rayna Gunvaldsen, BSA, MSc, DVM, has a love for agriculture forged by her upbringing in rural Saskatchewan. Her career began in the swine industry and spanned the primary chain from farm to fork—stockperson, herd veterinarian, and meat inspector—which sparked her interest in regulatory

medicine. After earning her master's in swine medicine in 2015, Rayna worked for the CFIA and the Government of Alberta in various roles including District Veterinarian for Vancouver Island, Foreign Animal Disease Veterinarian, and Surveillance Veterinarian, before being appointed Chief Veterinarian for BC in 2020. Her areas of interest include transboundary animal disease, disease control, and emergency management.



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THREE LITTLE BIRDS



Pre-COVID-19 tea time at WCVM with classmates and friends for life. From left to right: Reina F., Robin O., Caleigh G., Erin C., and Chris R.



our flight to Gatwick, London, leaves in 24 hours." I stared at the notification from my laptop's calendar for a while. It was Monday morning, June 8, 2020, and I was eating breakfast and checking emails before driving to work. I had been working at an equine veterinary practice in the Fraser Valley for over a month, a position I'd found at the last minute at the end of the school year, shortly after the COVID-19 pandemic turned the world upside down. Many, many people, including all of us university students, were suddenly, unceremoniously, unexpectedly sent home—all lectures moved online and future plans cancelled for the foreseen future. My classmates of the class of 2021 and I, together with all my other WCVM colleagues, ended up in our respective self-isolation locations with our heads spinning, collectively wondering, "What the heck is happening?"

The next month found us all at our desks for as many hours a day as we could muster, listening to the voices of profs we knew well, working desperately to pay attention when we couldn't see their faces or respond to their questions in real time. No 10-minute breaks between classes when we could visit with our friends, walk laps around the building, play foosball or fill our tea thermoses, and, perhaps most importantly for our degree, no labs to put our learning into clinical perspective. Now that tea mug that we could top up any time was almost an enemy. Every time it was empty we were tempted to leave our bedroom/home office for a "study break" in which we'd also text or Snapchat a friend, or find a family member that we weren't sick of yet (usually the dog) to visit with . . . We needed interaction and connection and were lacking it despite being connected by cyberspace to the rest of the world. Because when you see your friends, you give them a hug; when you meet someone new, you shake their hand; when you see a dog, a cat, a horse, a goat (well, depends what kind of veterinary

student/human you are) you want to pet them, touch them. But suddenly we were all at least two metres apart, or in our case hundreds to thousands of kilometres apart from our classmates and professors, and people just aren't meant to be that way.

With that WestJet notification, an event that was impossible now but that I'd forgotten to cancel on my calendar, all this went rushing through my mind. I had been working on my summer plans following my third year of the veterinary medical program for over a year. I was set up to start fourth year directly following my May exams, starting with six weeks of clinical large animal rotations at the WCVM Veterinary Medical Centre. Then I was to fly to the United Kingdom for a month of travelling and two weeks of an equine externship at a large veterinary hospital in Wales. From there I was going to New Zealand for the rest of the summer to complete another equine externship at a veterinary practice I wanted to intern with after graduation, as well as visit some friends from the last time I was there and explore a bit more. All of that sounds like a bit much for one summer, but it was going to happen. I'd worked hard at scheduling everything, saving money, booking flights, preparing visas, and getting university approval for it all . . . and in the space of a week, all of those plans were gone. Now, that's nothing compared to the struggles of people who've gotten sick with SARS-CoV-2, or had family members get sick or even die, or who have lost jobs and ended up in severe financial hardship. But every person carries their own burdens and fights their personal battles, and giving up those plans and dreams was very difficult for me.

I reached out to some BC veterinary student colleagues



Bob Marley on the beach making some music as the sun rises.

"OUR PROFESSION IS
RESILIENT, AND EVEN
DURING A GLOBAL
CRISIS, VETERINARIANS
HAVE BEEN INCREDIBLE
LEADERS."

"Don't worry about a thing, 'cause every little thing is gonna be all right" —Bob Marley

to see what they had to say about the pandemic-imposed changes on their life. Vanessa Fussell, of the lower mainland, a soon to be fourth-year student who is interested in small animal emergency medicine, said the most challenging thing for her was the uncertainty. "Not knowing how it was going to affect my school and summer employment made me very anxious. The unknown was definitely the most difficult part for me when COVID-19 became reality," she said. But she also emphasized that seeing veterinarians' collective response to the pandemic, as well as their adaptability, was inspiring to her and made her proud to be entering the field of veterinary medicine. "Our profession is resilient, and even during a global crisis, veterinarians [have been] incredible leaders."

Robin Owsiacki, of Victoria, BC, also an up-and-coming fourth-year, said the hardest thing for her was accepting both the bitter and sweet of the pandemic's influence on our student lives. She said, "Coming to terms with the good things that have come out of this experience without downplaying the ongoing tragedies occurring outside of my own 'bubble' was confusing." But she found that time was making it easier to be at peace with those things in her mind. She said that despite everything, the extra month back at home on Vancouver Island with her partner and family was an amazing gift, and throughout that time, she'd renewed her appreciation for her community. She said, "There is more inherent 'goodness' of strangers and neighbours than I expected," a realization that certainly keeps hope alive for someone entering an empathy-focused career. Robin wants to focus on exotic and wildlife medicine and is working at a wildlife rehabilitation centre for the summer.

A lover of birds, Robin's response to my questions reminded me of a song that came on when I was driving to work the other day that seemed fitting to bring up in the context of the pandemic: "Rise up this mornin', smiled with the risin' sun / Three little birds perch by my doorstep / Singing sweet songs, of melodies pure and true / Sayin' this is my message to you / Singing don't worry 'bout a thing, 'cause every little thing is gonna be all right." I won't ever be able to say or sing things as well as Bob Marley, but as the world slowly recovers from this pandemic, I hope more people notice the birds. Singing every morning, regardless of viruses, politics, and social turmoil. There are so many little things we can appreciate throughout the day with the right perspective. Who knows where things will go from here, because there is still a lot of uncertainty, but there is more resilience in us yet, and with that as well as a love for and connection to our fellow people (and their animals) we can see hope in each new day amid life's challenges.

This was my last article for West Coast Veterinarian. Thank you so much to the Society of BC Veterinarians, as well as all the folks that put WCV together for this opportunity. And thank you to all my profs, classmates, friends, and the animals that gave me some wonderful stories to tell—I look forward to sharing the veterinary profession with you all following my graduation in 2021. Cheers!



Reina Gabriel Fennell, WCVM class of 2021, grew up on an acreage on Haida Gwaii surrounded by marine and forested wilderness, which started her on her journey of getting as many experiences with different species as she could on the islands, in other parts of Canada, and abroad. She completed two years of a BSc in bioveterinary science at Dalhousie University's Faculty of Agriculture before being accepted into WCVM in 2017. After graduation, she would like to be a large animal veterinarian with a focus in equine medicine and surgery.

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West Coast Veterinarian's "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 dermatology.

OTITIS IN THE AUVENILETO ADOLESCENTI PATIENT

BY JANGI BAJWA, BVSc & AH, Dipl. ACVD "KNOWLEDGE

he first column of this series discussed detailed otic examination, normal otic findings, and identification of early onset otitis. I now discus juvenile to adolescent life stages, when various primary conditions can clinically impact the health of many otic structures, including the pinna, ear canal, middle ear, or a combination. Patients may be presented for a single otic sign or a range of symptoms associated with ear disease. The presenting symptom itself can signify a specific ear condition. Equally, one or more clinical signs ma be the result of a large range of potential primary differential diseases.

Young dogs are most prone to otitis, with a large range of potential ear conditions occurring within the first two to three years of life. Most of these conditions can cause secondary pruritus and ear infection. It is important to remember that all ear infection involves otitis but not all otitis indicates ear infection. Thus, the veterinarian's ability to assess ears otoscopically and cytologically remains vital during patient assessment through this life stage, as with all other life stages.

Ear disease may be curable if the primary disease is identified. Various primary conditions that cause ear problems are incurable and need lifelong management This may cause frustration for both the veterinarian and pet owner, especially when the primary condition is not identifiable, or when information regarding curability of the ear condition is not available. Determination of the primary cause will empowe the veterinarian in finding a cure or at least in providing a good management plan to help maintain adequate otic health long-term. Such an outcome can help prevent ongoing or recurrent patient discomfort that, if left uncorrected, could become

Ear conditions that commonly present in juvenile to adolescent animals can broadly, if simplistically, be divided into those that largely affect the ear pinna, and those that largely affect the ear canal, with or without pinna involvement.

The ear pinna may be affected by alopecia, scaling, crusting, erythema, pruritus, ear margin changes such as notching, and hyperkeratosis. Almost any underlying primary condition may cause one or more of these changes, especially in the presence of pruritus-related self-trauma directed at the pinna. When the external ear canal is largely affected, erythema, ceruminous hyperplasia, pain, secondary infection, and pruritus demonstrated by scratching, face rubbing, or head shaking account for clinical signs (with or without presence of the aforementioned clinical signs involving the pinna). Involvement of the tympanic bulla may be present without added symptoms, although increased otic pain and discomfort, head tilt, neurological signs, and hearing loss are considered more likely to be part of the clinical picture.

Information relating to patient pruritus can be quite helpful. Knowledge about the level of pruritus, as well as timing of its appearance in a patient's clinical picture, can help exclude or include important differential diagnoses. Early-onset pruritus, or lack thereof, is generally a helpful historical point. Late-onset pruritus may also be helpful to know about, or it may be a complicating factor as it can simply be a result of secondary infection development or progressive discomfort relating to a persistent primary condition.

ABNORMALITIES THAT PRIMARILY AFFECT THE PINNA

The following conditions can be considered likely in young patients being presented with abnormalities of the pinna, with or without ear canal changes:

- 1. Keratinization disorders, including canine primary seborrhea, sebaceous adenitis, and facial dermatitis of Persians can all cause bilateral ceruminous otitis. Presence of cutaneous symptoms consistent with the primary keratinization disorder, even if mild, are indicative of the primary condition.
- 2. Cutaneous vasculitis is associated with a range of causes including underlying infection, food allergy, drug reaction, rabies vaccination, or cold agglutinin disease, or it may be idiopathic. Pinna-related clinical signs include alopecia, hyperkeratosis, scaling, and necrosis along ear margin and tips. Other multifocal cutaneous lesions may be present elsewhere, including a focal area of alopecia at the vaccination site in rabies vaccine-induced alopecia.
- 3. Feline proliferative and necrotizing otitis externa most commonly affects the concave pinna and external ear canal orifice. Dramatic lesions, including tightly adherent hyperkeratotic crusts and erythematous plaques, are usually seen. Previously thought to be a disease of kittens, this condition can affect all age groups and generally occurs in young adult cats.
- 4. Juvenile onset canine demodicosis is a deep, parasitic folliculitis due to Demodex mites, affecting the haired skin of the pinna in juvenile dogs. Multifocal hair loss is noted in the generalized form, including face and ears. Secondary skin infection and pruritus may be present.
- 5. Canine scabies is an intensely pruritic condition, most commonly seen in young dogs, although dogs may be affected at any age. The face and pinna are involved in over 70 per cent of the cases. Alopecia, erythema, and crusting of the pinna may be present although some dogs remain lesion free. A positive pinnal-pedal itch reflex can be indicative of the condition although it is not diagnostic for the disease.
- 6. Dermatophytosis-related skin lesions can include single or multifocal circular patches with variable scaling, crusting, alopecia, and erythema at facial, pinnal, and pedal skin. Pruritus is usually minimal or absent. Diagnostic testing is vital as dermatophytosis has the potential to be greatly overdiagnosed, if diagnosis is based on clinical signs alone.
- 7. Pemphigus foliaceus causes development of scaling, alopecia, and thick, adherent crusts over the nasal bridge and ear pinna, in addition to other body sites of dogs and cats. Pruritus and secondary infection are uncommon. Presenting signs can often be quite similar to dermatophytosis.

ABNORMALITIES THAT PRIMARILY AFFECT THE EXTERNAL EAR CANAL

In patients presented for ear disease within the first few years of life, wherein the external ear canal is largely affected (with or without pinna changes) the following primary conditions can be considered:



tion, and inflammatory changes in a young Cho





- 1. Canine atopic dermatitis (environmental allergy) usually begins to severe pain of to affect patients within the first three years of life, with otitis externa seen in 50–80 per cent of these dogs. In approximately 4 per cent of atopic dogs, otitis externa may be the only symptom demonstrated. Pruritus is often a significant pruritus, excessis symptom due to primary as well as secondary factors.
- 2. Feline atopy also first affects patients at a young age. Head and neck scratching as well as ceruminous otitis are two of the commonly noted presenting signs in atopic cats.
- 3. Feline ceruminous otitis may also be noted secondary to non-allergic conditions such as feline demodicosis and facial dermatitis of Persian cats.
- 4. Food allergy in dogs and cats usually affects either younger patients or geriatric patients, occurring less commonly through the middle years, although a patient can be affected at any age. Otitis is noted in up to 80 per cent of dogs with food hypersensitivity. In more than 20 per cent of these dogs, otitis externa is the only symptom.

Idiopathic inflammatory hyperplastic otitis is seen primarily in Cocker Spaniels, initially at a relatively young age. Within a year (or sometimes several years), these dogs develop marked proliferative otitis externa, without other signs of skin disease, which may rapidly progress to calcified ear canals.

The middle ear can be secondarily affected by most of the conditions that cause otitis, and is rarely the primary site of otitis. One primary inflammatory condition that directly affects the middle ear in young dogs is primary secretory otitis media (PSOM) of Cavalier King Charles Spaniels. The condition has been reported in other dog breeds. Principal symptoms are moderate

to severe pain of head or neck, head tilt, and guarding of the neck. Otic pruritus, excessive yawning, acute painful episodes, vestibular disease, hearing loss, and neurological signs may be noted.

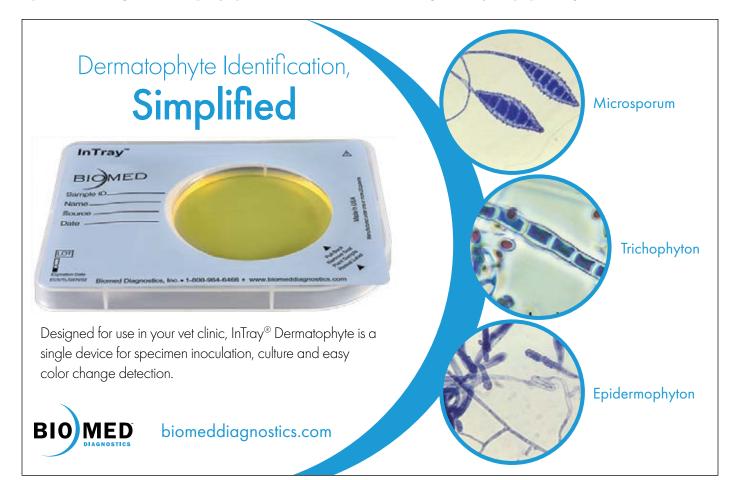
Presenting signs



may be very similar to those of syringomyelia and/or progressive hereditary deafness. In some cases, secondary otitis externa and related symptoms occur.

As demonstrated above, a large range of differential diagnoses may potentially affect young patients presented for ear disease. Based on pruritus as well as otic, cutaneous, and non-cutaneous signs affecting the patient, an individualized diagnostic plan is tailored. For example, skin biopsy testing can confirm feline proliferative and necrotizing otitis externa; deep skin scrapings help diagnose demodicosis; a thorough allergy workup helps confirm and treat atopic dermatitis; and imaging studies (CT or MRI) alongside video-otoscopic assessment aid in the workup of primary secretory otitis media of Cavalier King Charles Spaniels.

Most primary conditions discussed above have the potential to cause unilateral or bilateral otitis. A cure or long-term control of otitis is predicated on determining and correcting the primary cause, along with resolving secondary and perpetuating factors.



VETERINARY ADVISING IN THE DAIRY INDUSTRY

BY KATELYN MILLS, BSc, AND MARINA VON KEYSERLINGK, BSc, MSc, PhD

"...WE FOUND FIVE MAIN FACTORS THAT AFFECT FARMER ADHERENCE TO ADVICE."

iven their in-depth knowledge of animal health, veterinarians are important advisors to dairy farmers. Evidence from our research group indicates that veterinarians are trusted advisors to farmers and are frequently consulted on various aspects of dairy farm management outside of their animal health training. For example, when asked about their relationships with their veterinarians, farmers in the Fraser Valley region of British Columbia reported that they involved their veterinarians in many aspects of managing their business, including policy development, new barn design, and preventative health management.

However, while some relationships between farmers and veterinarians are quite strong, farmer advising is complex, and our research has also highlighted some aspects of veterinarian-farmer communication that potentially work against the goal of improved animal health outcomes. To understand how advising functioned in the development of standard operating procedures on dairy farms, we studied farmers and veterinarians in the Fraser Valley region of British Columbia. We worked in collaboration with farmers and their herd veterinarians to create standard operating procedures for newborn calf care and colostrum management. From the results of this study, we found five main factors that affect farmer adherence to advice.

1 FEASIBILITY: IS THE ADVICE FEASIBLE FOR THE FARMER?

A farmer may agree with advice offered by an advisor but find that it is not feasible for their individual farm management or barn design. For example, if advice requires that the farmer move to milking three times a day, but they are struggling to find dependable employees to fill their current milking schedule, following the advice may not be feasible.

2 RESOURCES: DOES THE FARMER HAVE THE RESOURCES TO ACT ON THE ADVICE?

Some advice will require additional time, finances, equipment, or other important resources. For example, farmers are advised to test colostrum quality, but they do not have a refractometer, or they are advised to use online veterinary portals, but they are not comfortable using a computer. It may seem simple, but making sure that farmers have the resources that they require can help with advice adherence.

3 PRIORITY OF THE ADVICE: WHAT IS THE PRIORITY OF THIS ADVICE TO THIS FARMER?

From the perspective of the veterinarian, the advice offered may be top priority, but the timing may not line up with the farmer's priority list. If these priorities do not align, veterinarians are encouraged to work in collaboration with the farmer to implement practices that fit the farmer's goals.

4 OTHER ACTORS INVOLVED: WHO ELSE NEEDS TO BE INVOLVED FOR THIS ADVICE TO BE SUCCESSFUL?

Some changes on a farm will require the support of not only the farmer but also their employees, other advisors such as nutritionists, or the herd veterinarian. If the farmer agrees and wants to make changes in their management, there is evidence that it is also important that the entire team embraces the proposed management changes. One suggestion for accomplishing this is to sit down with the whole farm team or other farm advisors so that everyone can work collaboratively to achieve the common goal.

5 IMPORTANCE OF DATA: HOW CAN VETERINARIANS USE FARM-SPECIFIC DATA TO OFFER ADVICE TO A FARMER?

Try not to underestimate the importance of data when advising a farmer. When farmers are able to see the impact of their management choices (for example benchmarking reports, average daily gain), our research and that of others has shown that this can lead to improved outcomes.

CONCLUSION

Advising in the context of the dairy farm is complex. But farmers are not irrational. They will ultimately make decisions that help their business, improve the welfare of their animals, and fit their individual farm management. The goal of advising dairy farmers should be to find advice that achieves each of these outcomes and to work together to achieve common goals. By creating opportunities for open dialogue and providing individualized advice to farmers, you can work together to improve crucial areas of dairy cow health and welfare.

REFERENCES

Mills, Katelyn E., Katherine E. Koralesky, Daniel M. Weary, and Marina A. G. von Keyserlingk. "Dairy Farmer Advising in Relation to the Development of Standard Operating Procedures." *Journal of Dairy Science* in press (2020).

Mills, Katelyn E., Daniel M. Weary, and Marina A. G. von Keyserlingk. "Identifying Barriers to Successful Dairy Cow Transition Management." *Journal of Dairy Science* 103, no. 2 (2020): 1740, 1759.

Sumner, C. L., Marina A. G. von Keyserlingk, and Daniel M. Weary. "How Benchmarking Promotes Farmer and Veterinarian Cooperation to Improve Calf Welfare." *Journal of Dairy Science* 103, no. 2 (2020): 702–713.

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ONAMING ANDAPRAYER

BY NIKI MONTGOMERY

ou often hear children say they want to be veterinarians when they grow up; likely because children are naturally sensitive, empathetic, and lovers of animals. But as time passes, this career choice is often eclipsed by other careers or considerations. Finally, those who are determined and stick to their childhood dreams now have new considerations: length of study, debt load, admission requirements, perceived opportunities, and more. In the final analysis, a small group remains who have completed this unbelievably difficult and competitive journey and have become new veterinarians. What will their special interest be? Will they choose companion medicine, large breed, exotic, avian? In my experience, and to my dismay, I've seen avian medicine at or near the bottom of the list.

I am not a veterinarian; I am merely a hospital manager of a strictly avian practice and, more importantly, a bird owner, so I may be biased. But maybe not. For cat and dog owners, it's not difficult to have your pet cared for. For a bird owner, this is quite the opposite. It's difficult and complicated to find a veterinarian who can help you with routine examinations let alone with critical or even emergency care. And I've seen that avian medicine is often dismissed as being "too complex and delicate," so veterinarians choose to focus on companion animal practices instead, often specifically excluding avian patients.

My question is not so much why does this happen, but how we can change it? Finding an avian practitioner is hard, but maybe becoming an avian veterinarian or including birds in the scope of practice doesn't need to be that hard.

In 2016 I stood alongside some of the greatest hearts as we rescued and took over the care of nearly 600 parrots of the World Parrot Refuge in Canada's largest rescue. To see the emotion, the resilience, and the overall presence in these birds that were in this dire need was absolutely incredible and humbling. The birds were suffering from self-mutilation, depression, open wounds, broken bones, respiratory issues, liver and heart issues, and on and on, and my thoughts then were, how can we get enough veterinary care for all of them? Which birds will need to be admitted into hospital, and which ones will even receive

baseline bloodwork to see how far their illnesses go?

In the intervening years, my question is still as valid: when it comes to birds, how can we get veterinary care for them when so many veterinarians do not practice avian medicine? If the animals in this rescue had been cats and dogs, they would have been received quite differently by the veterinary world. Instead, for the hundreds of

AT NUMEROUS AVIAN
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VETERINARIANS IN BC."

Accouver, we had the care of only three veterinarians

THAT LEAVES THESE BIRD

AND THE OTHERS IN CARE

birds about to join us in Vancouver, we had the care of only three veterinarians to see them through this catastrophe they were placed in. I had personally reached out to multiple hospitals, urging staff who had an interest to please come and offer a helping hand. I contacted 64 clinics, to be exact, and only two stepped up and helped.

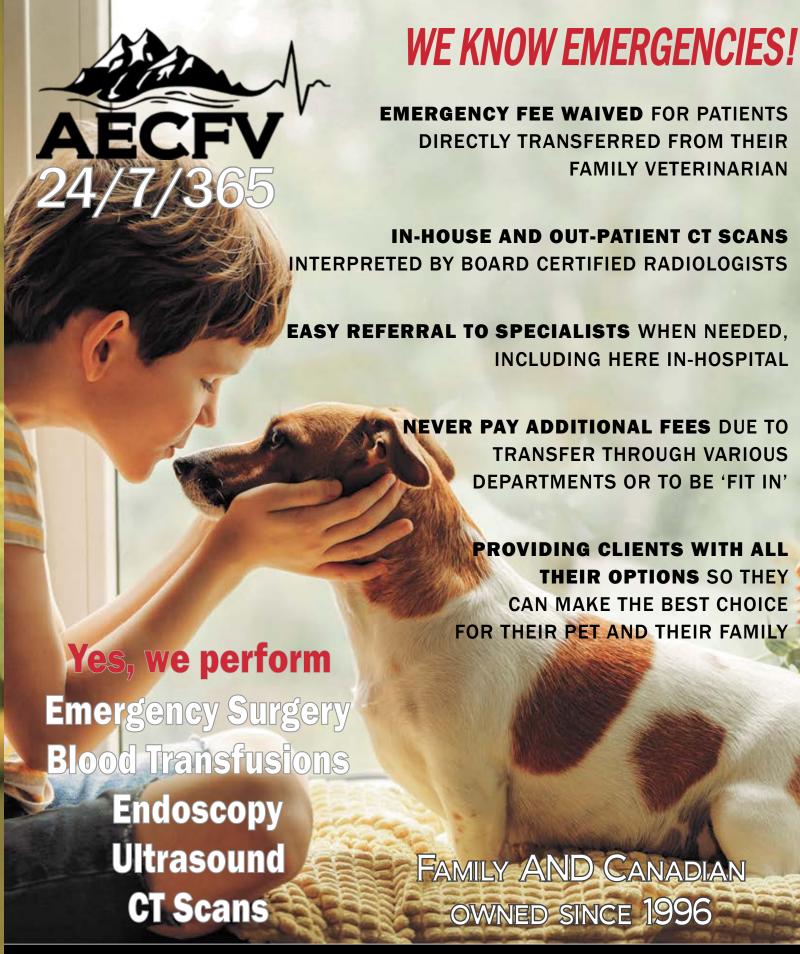
At the Night Owl Bird Hospital, where I am the hospital manager, the waitlists to see a veterinarian qualified to treat birds are long for everyone, even for me as a bird owner. Yes, in an emergency I can wake our practice owner up and ask for help, even when she has just worked a 16-hour day and is completely exhausted. But not every bird owner has that option.

So where do you go to access veterinary care for birds? Our hospital alone has nearly 11,000 clients and many of those clients have multiple birds. And, as disgusting as bird breeding is, it is a reality—there will always be companion birds in need of medical care to the same degree as our fluffy four-legged friends.

That leaves these birds, and the others in care at numerous avian rescues, with a more pronounced consequence of the already apparent shortage of veterinarians in BC. The dearth of avian veterinarians means the few that do handle birds are growing busy, tired, or simply older, and won't stay in the profession forever.

I urge the newly graduated veterinarians coming to BC to work, along with current veterinarians and the BC students who were just accepted into veterinary school, to consider avian medicine as a part—or the focus—of their practices.

Birds have the ability to love, just as cats and dogs do. There is no end in sight for birds being companion animals, so we need to find a way to support their health.



ANIMAL EMERGENCY CLINIC OF THE FRASER VALLEY www.animalemerg.com 604 514 1711

THE INDOOR-OUTDOOR CONTROVERSY:

WHICH LIFESTYLE IS BEST FOR GATS?

BY MARGIE SCHERK, DVM, Dipl. ABVP (FELINE)

WHAT ARE THE SYMPTOMS OF CABIN FEVER?

Lethargy

· Sadness or depression

• Trouble concentrating

• Decreased motivation

• Lack of patience

· Difficulty waking

• Frequent napping

Food cravings

• Hopelessness

uring this period of change brought on by COVID-19, we have had to learn a new set of rules.

Through hand hygiene, greater physical awareness, and social distancing, we have, at least as I write this, helped to flatten the curve in British Columbia.

Social distancing has been extremely challenging for us, especially for the extroverts among

us, as we are a social species. (The term "physical distancing" more aptly describes the desired public health management technique and is less scary.) We have learned new ways to remain in touch by creatively holding social events at distance via technology. Had the pandemic occurred 20 years earlier, mental health would have taken an even greater hit.

It has been challenging to only leave the house every week or two to pick up essentials. Our former habit of just stopping somewhere to pick up a (fill in the blank) has been restricted. Going to work, either in clinic with the pervasive challenge of assessing clients, determining whether a patient really needs to be seen, and maintaining distance within the clinic are exhausting. We have to stay outside our normal physical space with others: no touching, no hugging. We are unable to express normal human behaviours. We are stuck indoors and are experiencing "cabin fever."

WHAT HAS THIS GOT TO DO WITH CATS OR THEIR WELFARE?

People who care enough to bring their cats (or dogs or other non-human companion) in to see us probably try to meet the Five Freedoms of Animal Welfare. Yet many of us may not take the inherent nature of the cat into consideration sufficiently when we bring them into our homes. Certainly we are providing food, water, a comfortable resting place, and shelter, but are we in fact providing an appropriate environment, the ability to express species-specific behaviours, and conditions that do not create mental suffering or distress?

HOW DO WE DEFINE STRESS AND DISTRESS?

Stress in and of itself isn't necessarily bad. Its physiological, mental, and emotional components help us respond appropriately to situations. In the short term, it is healthy. But when stress is prolonged or ineffective and exceeds our ability to cope, it becomes distress. Stimuli that result in distress and the degree of distress produced differ between individuals. Additionally, for some, distress, such as with this pandemic, may manifest itself in mental, social, or physical health. Stress hormones (epinephrine, norepinephrine, and cortisol) impair the immune response. Thus, distress can result in disease.

Certainly by keeping cats indoors, we are preventing them from being hit by a car, getting into altercations with unfamiliar cats and other animals, being killed by wildlife, and killing wildlife. They aren't likely to get lost or be stolen or become pregnant when protected indoors. The risk of exposure to certain infectious diseases (FIV, FeLV, rabies), parasites (ticks), zoonotic diseases (toxoplasmosis, salmonellosis), and toxins (antifreeze) is reduced but not completely eliminated. Household hazards abound: stovetop burns, exposure to cleaning chemicals or medications, trauma from falls or falling objects. Additionally, certain illnesses are more prevalent in cats who are restricted from going outside. These include lower urinary tract diseases (urolithiasis, idiopathic cystitis),

hyperthyroidism, dermatologic conditions (atopy and acral lick dermatitis), obesity, diabetes, and even resorptive lesions. Boredom and inactivity may result not only in overeating but also in obsessive behaviours and problem behaviours (spraying and scratching). We don't even have data that supports a greater longevity of indoor cats compared to owned cats who have outdoor access.

WHAT DOES A CAT NEED TO BE A CAT?

Aristotle used the term "telos" to refer to the "full potential or inherent purpose of each thing, the ultimate reason for each thing being the way it is, whether created that way by human beings or nature." Thus, cats need certain opportunities (physical, mental, and social) to manifest their "catness." If these needs are not met, then a chronic state of distress may ensue.

WHAT ARE THE NORMAL BEHAVIOURS OF FELIS CATUS?

Species-typical behaviours include play, investigation, observation, hunting, feeding, drinking, grooming, scratching, travelling, scent marking, eliminating, resting, and sleeping. A study observed five queens on a farm in England for 360 hours. During 24 hours, these cats slept 40 per cent of the time (9.6 hours), rested for 22 per cent (5.3 hours), groomed for 15 per cent (3.6 hours), hunted for 14 per cent (3.4 hours), fed for 2 per cent (30 minutes), travelled or moved unrelated to hunting 3 per cent (48 minutes), and performed other activities for 1 per cent (15 minutes). Cats are crepuscular, that is, their night activity is bimodal, with peaks occurring around dusk and dawn.

We know environment is critical. Merely by making changes in the housing structure at the BCSPCA, Gourkow showed a decrease in the prevalence and incidence of upper respiratory tract infection without changing intake, vaccination, or disinfection protocols. A reduction in reoccurrence and severity of idiopathic cystitis occurs with multimodal environmental modification, and even outdoor access to prey was associated with a lower risk for lower urinary tract signs.

HOW DO WE MEET OUR CATS' ENVIRONMENTAL NEEDS INSIDE (OR OUT)?

The AAFP/ISFM Feline Environmental Needs Guidelines describe five pillars/key concepts to provide for the physical, mental, and social needs so that "cats can be cats."

1. A safe place

This allows the cat to rest, relax, and sleep without fear. Because cats also need to observe to avoid and evade danger, they need a raised vantage spot. Not having the ability to hide can contribute to stress and illness. Cats shouldn't feel trapped by another cat, a dog, a person, or an appliance that makes noise unexpectedly, so having more than one entrance/exit is helpful. Regardless of mobility, cats need to be able to access this and other resources easily.

2. Multiple and separated key environmental resources

A cat's territory is defined by availability of resources: food, water, and areas for toileting (litter trays), scratching, playing, observing, resting, and sleeping. They defend their territory to maintain access to resources. Cats are socially gregarious, but appear to prefer sole access to a given resource. Cats keep at least one to three metres of distance between themselves to avoid conflict. Using vertical space for perches, resting spots, walkways, scratching, and even feeding can help achieve these distances. Situating resources in such a way that cats need not see each other may reduce the stress from real or perceived fear of ambush. Cats who belong to the same social group (are bonded) may share resources; however, physical distance between different resources is still needed (for example, don't place food beside water).

Even cats who don't like each other will often make do with a situation, especially when it involves an essential resource, such as food. However, when it comes to litter boxes, they may be less tolerant. Cats use 1.5 to 2 times their body length when toileting, so large boxes placed in safe, separate rooms are preferred. The depth and type of litter are crucial as well as its cleanliness.

3. Opportunities for playing and hunting

Hunting is crucial for feeding but also for physical and mental stimulation. Cats aren't "killing machines"—they are only successful every 10 to 15 times, thus

their drive to hunt is permanently turned on. With a full bowl and nothing to do, weight gain, poor fitness, and boredom occur. Pseudo-predatory play is important, so indoor feeding puzzles and hunting devices are preferable to bowl feeding. With multiple cats, the three-metre personal space should be maintained, or provide different play sessions. Visual stimulation such as a bird feeder, fish tank, or window perch, is important, as is tactile stimulation (rolling on a textured mat with a catnip toy).

4. A healthy olfactory environment

A cat's olfactory sense may be their most important sense. Not only do they perceive odours as we do, they also perceive sensiochemicals/pheromones. These are used for marking, making their home territory safe. Our homes may have aromas that are overwhelming or even confusing, encouraging them put more effort into marking. Especially for an indoor cat, smells brought in from outside and new items may disrupt the safe olfactory milieu. Respecting a cat's sense of smell means being aware of these disturbances and leaving their "tags" where they've put them. When a cat is marking with urine, encourage them to mark with their claws (visual) and pad scent glands on a scratching surface or with their cheeks on a corner; a pheromone plugin may help.

5. Social predictability

Cats are not antisocial. They flourish with predictable, consistent interactions with humans and others. Unlike dogs, cats have a very short socialization period that occurs between two and seven weeks of age. Thus, their ability to adapt outside that period depends on their other early life experiences and genetics. In general, cats prefer many brief periods of low-intensity interactions with people. And they like to be in charge of when and where these interactions occur. People and other housemates may barge into a cat's space unwelcomed. Feline manners prescribe head and cheek petting only unless otherwise requested. Fixed eye contact (staring) is very rude and is threatening to cats. Some cats prefer being stroked or groomed, while others prefer their interactions to be oriented around play.

PURRSONALITY

Can all cats adjust to living indoors? Clearly not. What can we offer them? How can we reduce the outdoor risks yet provide the outdoor lifestyle? Creating secure yet stimulating enclosures protects the cat and, to some degree, small wildlife. For apartments that are off the ground floor, window boxes are a possibility. When there is access to the ground, catios of various degrees of elaborateness can be bought or built—everything from the catios that were designed by the BCSPCA in 2019 to getting creative with the top of a fence to a prefab chicken coop.

CONCLUSION

Simply confining cats, while well-intentioned, may not be best for the welfare of all cats. When the environmental and social needs of cats are met, and adequate space and resources are provided, many cats will eventually adapt to indoor housing, especially if they have been exposed to this lifestyle from an early age; however, cats used to having outdoor access may find it difficult to make the adjustment as adults. There is no one-size solution.

RESOURCES

In the interest of saving space, the resources for this article are made available on the Chapter's website at www.canadianveterinarians.net/documents/wcv-references-september-2020.pdf.

"BUT WHEN STRESS IS PROLONGED OR INEFFECTIVE AND EXCEEDS OUR ABILITY TO COPE, IT BECOMES

DISTRESS."

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BROWN, GOLD, OR GREY MUZZLES— THEY ALL NEED SPECIAL CADE

BY KATHRYN WELSMAN, DVM

t is a typical Thursday afternoon. I'm finishing up a new puppy vaccination and reviewing diagnostics from the vomiting dog, and I have several callbacks yet to do. My tech tells me the 4 PM is waiting in the car. It is Sadie, a 12-year-old Golden Retriever, with a complaint of peeing in her bed I'm thinking maybe if I'm lucky a bit of Stilbestrol will be all this old girl needs and I can still dash out the door at 4:30 PM to pick up my kids from daycare.

I step into the appointment and quickly realize Stilbestrol isn't going to be the solution for this family Sadie is knuckling and stumbling, leaking urine in the exam room, and barking in a disoriented manner, and occasionally she has a bout of profound coughing. She is accompanied by a family of adoring kids and she happily takes all the cookies offered. This is not a euthanasia appointment; the owners want me to fix their dog. I'm thinking to myself I don't have the time to fix this dog! So I do my best to have a conversation in my allotted time, which luckily at our practice is 30 minutes, and hand over some medication that will hopefully "do" something and talk about coming back the next day for further work up. I then dash out the door, making those callbacks on my cell phone while I drive like crazy to pick up the kids. I'm sure this is a familiar routine for some of you.

Is that good care that I just provided to a family with an elderly, frail dog who has numerous geriatric issues? Nope. Is that even good medicine? I'd say probably not. So how do we, as very busy veterinarians, especially in BC when we have a veterinary shortage, deal with hospice/palliative care for our senior patients? The World Health Organization defines palliative care for humans as "an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual." That is a lot to assess, think about, and implement, and it can't be done in one 30-minute appointment.

On my drive home that night, I thought about Sadie and her family, and what I could do to help them. The light bulb went on somewhere between thinking about what I was making for dinner and listening to the kids tell me a story about their day. I flashed briefly on some lectures I had attended at a conference in San Diego late ast year. There was a series of lectures with titles such as, "Doc, How Will I Know It's Time?" "Euthanasia under Pressure: When the Sh*t Hits the Fan," "Living Well and Being Old: Practical Care for Geriatrics in the Home," and "The Old and the Restless: Caring for Grey Muzzles in Your Clinic." These aren't nearly as snazzy as things like "21 Tips from the ER," or "Thoracic Trauma—What Lies Beneath," but nonetheless the speaker herself, Dr. Mary Gardner, made an impact. Dr. Gardner is one of the founders of Lap of Love, an American country-wide company that practices home euthanasia and hospice care. She brought humour and compassion to these topics, and at the time of the conference she made me think again, r maybe just think for the first time, about how we deal ith our senior patients. Sadie, a beautiful grey-muzzle og with her many complaints and loving family, would fit into the spectrum of needing such special care, so I rought up the lectures and reviewed what I had learned. Assessing quality of life is a big piece of the puzzle. think owners want us to assess the quality of life for nem, which is hard to do in a clinic setting. Dr. Gardner out it this way: "The goal is not to evaluate the quality of ife for the family (although I feel owners want and deserve my opinion) but rather to help them uncover their wn thoughts, feelings, and boundaries for their pet surounding end-of-life decisions." She went on to describe the questions she asks that help determine the family's time, emotional, physical, and financial budgets as well. This is where I think we fail as veterinarians. We often only look at the disease and not at the whole picture. Often I find it hard when I know there are more treatments that could help an aging pet, but the family is unwilling to pursue those treatments. Dr. Gardner explained that "if the pet is declining in health and there are no additional diagnostics or treatments the family is either willing or able to explore, then quality of life is either an imminent concern or will be some point soon. If the family's emotional, time, physical, or financial budgets are being drained there is a subjective time period in which euthanasia is an appropriate decision to make."

I'm sure many of you, like me, get the dreaded question all too often . . . "Doc, when is it time?" How do we answer that question when we haven't explored all of the variables with the family? I know that when I've had my five-minute conversation about quality of life or making THE decision, I've seen the agony on the owner's face. I think we've also all faced this same question with our own pets. Dr. Gardner's comment about this situation was succinct: "It is our duty to assist owners with end-of-life decisions and to help end and prevent suffering of animals. There are many ways to help families explore quality-of-life questions, but the one way that is an injustice to our profession is if you simply say, 'Call me when it's time.' Owners need more than this, and animals

deserve more." I wholeheartedly agree with Dr. Gardner's assessment of the situation, but once again to do this properly we need a commodity that is in short supply—time. There are many quality-of-life assessment tools available and not every one will work for you, but maybe now is the time to find one and implement it in your practice. So I printed out some assessment tools to bring to work with me the next day to share with Sadie's family.

Geriatric home care is another piece to consider. It has never really crossed my mind to do a home visit for senior pets, mostly because of the time constraints once again. However, I ask owners all the time to film coughs or limps, and making use of technology could also help with home assessments. Dr. Gardner pointed out the benefit of seeing where the dog lives, as mobility is one of the major issues facing senior pets. She referred to slippery floors as "the ice rink of death for a dog with mobility issues," which gives us a pretty good mental image of what the dog might be facing. Using simple things like bath mats or yoga mats around the house to create a path for the dog to follow can give the dog a sense of freedom and improve their quality of life. Other ideas are harnesses, scent stickers, or "halo" bumper devices to help blind patients navigate better. Traction booties are another tool that owners should investigate to allow the dog more freedom in the movement. Sanitation is a huge issue for many older patients, and recommending diapers or waterproof bedding or assisting with shaving the perianal area could go a long way to helping a dog like Sadie.

These are practical solutions for the dog and owner. However, the other aspect of home care for aging pets is caregiver burden. I recognized this with my elderly lab in his last few months of life. He couldn't walk very far without collapsing. He got stressed out every night around 5 PM and tried to dig his way out of the house. He was anxious with loud noises. We worried about the interactions with our young children, who were two and one. We didn't want them to accidentally cause him any pain. He defecated on the couch regularly. My stress level was very high at the time, and it was causing me to resent my beloved "first child."

When I ultimately decided to euthanize him, I faced immense guilt. Because of the burden he had created for me, his last weeks weren't necessarily full of the love I knew I had for him. Dr. Gardner normalized some of my emotions when she talked about a study that examined the toll of caregiving on pet owners. The results found that caregivers of terminally or chronically ill pets had a greater level of caregiver burden and stress, greater perceived stress, greater symptoms of depression and anxiety, and a lower score on indicators of quality of life and enjoyment. So the lesson that I learned is that we can't forget to check how the owner is doing, and we have to have realistic expectations of what anyone can handle and what else is going on in that person's life. I'm a lot more empathetic about owners' home situations after facing my own dog's end-of-life struggles in our home. Dr. Gardner's lectures reminded me of this, and I wanted to make sure Sadie's family had resources to access to help them on their journey forward.

Caring for the geriatric patient in the clinic is another key piece to grey-muzzle medicine. Dr. Gardner pointed out that "The clinic can be a scary place for a pet—especially a fragile one. Making sure that they are physically and mentally safe, handled well/carefully, and treated respectfully is key." I've noticed that some owners tend to brush everything off as "He's just getting old" or "She's just slowing down" and often don't appear concerned about the declining health of their older dogs, not because they don't love them, but because they may not be aware we can do something to help them. We aren't seeing these older dogs, so we are missing out on helping a significant part of the pet population.

Dr. Gardner suggested that clinics need to consider giving more time and marketing to the older patient, similar to what we do for puppies. Some of her suggestions are making the senior version of "puppy packs," or having a designated parking spot for senior pets. Why not post pictures on social media about the senior patients we see?

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All too often we post the cute puppies only. How about making sure there are specific geriatric policies in place at your clinic? Some of the practical takeaways were things like, don't tie geriatric animals down under anesthesia as it cripples them, use memory foam on the surgery table or during recovery, recover these patients with a harness to help them stand and balance, and be mindful of their heat loss and drug calculations. Clinic floors are also very slippery, so many of the home care tips also apply to the veterinary hospital. Keeping these in mind while Sadie was visiting our clinic the next day was going to be important.

After reviewing these lectures, I now had a list of things I wanted to discuss with Sadie's family, and I felt that I could try do a better job to make her and her family more comfortable. However, in a busy veterinary practice, as much as we may want to support our clients in all of these ways, sometimes we still can't do it all. To that end, there are veterinarians in our province who have decided to dedicate their entire practice to this type of medicine or to provide home euthanasia, and finding one of these veterinarians in your corner of the province may be a great resource. Dr. Bryanne Leuenberger has a home euthanasia practice on Vancouver Island, and she says she started her practice after seeing the need in her general practice. When asked what her clients think about her service, she said, "My clients have been exceedingly grateful to have this type of service available. For most clients it is a great relief to be able to be at home with their pet and not have to stress them in their last moments by taking them into the vet clinic." Another such veterinarian is Dr. Jeff Berkshire who runs Lifting Stars Pet Homecare in Vancouver. Home euthanasia is clearly gaining momentum as evidenced by a recent article in Modern Dog magazine that highlighted this topic. The article talked about Dr. Berkshire and the services he provides. The article quotes Dr. Berkshire as saying, "More and more people are waking up to the fact that this is a service that we can do . . . It's a very intimate, personal and emotional time and now we can facilitate this in a home setting where you can select who is there." I suspect moving forward, many more clients will expect to have these services available

For veterinarians who are interested in learning more about hospice or palliative care, there are many resources available. This list isn't exhaustive, but these are some of the things I came across while sitting in the lectures in San Diego, while researching for Sadie, and also for this article. The International Association for Animal Hospice and Palliative Care has a veterinary certification program as well as an annual conference.

So even though I'm sure I can't change the way I practice overnight, or carve out as much time as I need for these beautiful old patients, I can try to do better. As Atul Gawande said "Better is possible. It does not take genius. It takes diligence. It takes moral clarity. It takes ingenuity. And above all, it takes a willingness to try."

WAYS TO REMEMBER

- Make a scrapbook
- Plant a tree in your backyard
- Plant flowers yearly in a flower bed and take that time to reminisce and remember the pet
- Make a tribute table
- Have all family members wear something that reminds them of the pet
- Make each family member a small pillow out of the pet's favourite blanket or bandanna
- Hold a memorial service
- Make a donation in the pet's name and let your child choose the charity; Morris Animal Foundation or the OVC Pet Trust Fund are options
- Have all family members write a letter to the pet to express their feelings
- Keep a list of all the things your pet did that made you smile or laugh
- Order keepsakes such as jewellery made of ashes
- Make ink paw prints in the clinic
- Create clay paw prints like Peartree Impressions
- Offering a memorial page on your clinic website

RESOURCES

- International Association for Animal Hospice iaahpc.org
- Lap of Love lapoflove.com
- The Pet Hospice Journal pethospicejournal.com
- Treatment and Care of the Geriatric Veterinary Patient, Edited by Mary Gardner and Dani McVety
- Hospice and Palliative Care for Companion Animals, Edited by Amir Shanan, Tamara Shearer, and Jessica Pierce
- AAHA End of Life Care Guidelines
- Ohio State Veterinary School Pet Loss Library
- Dr. Gardner's Amazon shopping list: www.amazon.com/shop/ drmarygardner
- Vetgirl Podcast "Caring for Geriatric Patients"
- Palliative Medicine and Hospice Care, Veterinary Clinics of North America: Small Animal Practice Volume 41, 2011
- Blunt Dissection podcast, "Episode 16," focus on geriatric anesthesia
- Atul Gawande's books, such as Being Mortal

SUGGESTIONS FOR RESOURCES TO HAVE FOR CLIENTS

- Disease sheets of common geriatric disease
- Daily diaries to help assess overall quality of life
- Quality of life scales
- Other services you support, such as acupuncture, massage, grooming, in-home pet sitting, etc.
- Pet loss groups or grief counsellors
- In-home hospice and euthanasia services
- Emergency clinics in the local area
- Specific euthanasia information WCV



This specialist column on dental care of young patients is broken into two parts. The last instalment, appearing in the summer 2020 issue, discussed the transition from deciduous to permanent dentition. This instalment focuses on malocclusions and developmental oral abnormalities.

ORAL EXAMINATION OF THE PEDIATRIC AND JUVENILE PATIENT

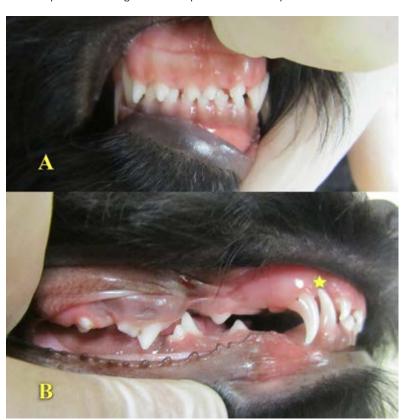
BY ANGELICA BEBEL, DVM, Dipl. AVDC

he occlusion, or bite, of every young dog and cat should be evaluated during every visit, as dental anatomy is constantly changing as the patient matures. Furthermore, recognizing the variation in sizes and shapes of heads and jaws that can occur between different dog and cat breeds is important. What might be considered normal for a French Bulldog may not be normal for a Labrador Retriever. Cats tend to show less variation, but some feline breeds, such as Persians, can exhibit differences in jaw lengths. The Nomenclature Committee of the American Veterinary Dental College provides a thorough review of the various forms of malocclusion to explain and standardize this diverse condition (avdc.org/avdc-nomenclature under "Occlusal Abnormalities").

The ideal occlusion in a puppy based on a mesocephalic and dolichocephalic skull consists of the maxillary incisor teeth just slightly overlapping the mandibular incisor teeth with the cusps of the mandibular incisor teeth resting on the cingula of the maxillary incisor teeth. The mandibular canine teeth should sit in the diastema between the maxillary third incisor and canine teeth (Figure 1a). This forms a dental interlock. In kittens, the rostral teeth will follow a similar relationship; however, the crowns of the incisor teeth may be in contact, resulting in the appearance of a level bite. This relationship between the rostral teeth in dogs and cats should continue as the permanent teeth begin to

In the caudal oral cavity, the maxillary and mandibular deciduous and permanent premolar teeth should interdigitate in a "pinking shear" relationship without

FIGURE 1: Normal occlusion with deciduous teeth in a 10-week-old puppy. (A) The maxillary incisor teeth sit just slightly over the mandibular incisor teeth with the cusps of the mandibular incisor teeth resting on the cingula of the maxillary incisor teeth. (B) The mandibular canine teeth should sit in the diastema between the maxillary third incisor and canine teeth, forming a dental interlock (yellow star). The maxillary and mandibular deciduous and permanent premolar teeth should interdigitate in a "pinking shear" relationship without touching the crown cusps of the mandibular premolar teeth.



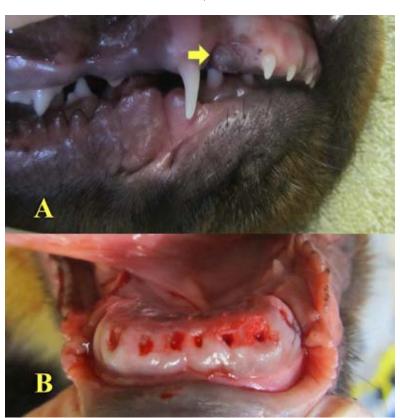
touching the crown cusps of the mandibular premolar teeth positioned lingual to the arch of the maxillary premolar teeth (Figure 1b). As the permanent molars begin to erupt, the maxillary fourth premolar teeth should be buccal to the space between the mandibular fourth premolar and first molar teeth. The caudal teeth in cats follow a similar relationship, with the maxillary second premolar teeth pointing in a space between the mandibular canine and third premolar teeth

This interdigitation of the teeth and interlock play an important role in maintaining a normal occlusion during the growth of a puppy or kitten. The maxilla and mandible are under separate genetic control and grow at different rates. If the teeth are properly positioned, then a proper maxilla-mandible relationship should be maintained as the patient develops and matures. As the maxilla grows, the maxillary canine teeth can push on the back of the mandibular canine teeth, dragging the mandible along. As the mandible grows rostrally, the incisor teeth should hit the back of the maxillary incisor teeth, pushing the maxilla ahead.

Significant discrepancies in jaw lengths in younger patients can result in abnormal dental interlock, such as when mandibular deciduous canine teeth contact and create defects in the hard palate (Figure 2a). As a result, any attempts of the shorter jaw to catch up is prevented, as the abnormal interlock holds it back.

Any puppy or kitten diagnosed with a malocclusion should be treated with interceptive orthodontics as soon as possible. This may allow the growth pattern to normalize and may recreate dental interlock if the patient has the genetic potential for a normal occlusion before the eruption of the permanent teeth. The more time between deciduous tooth extraction and permanent tooth eruption, the better chance of success (before 10 weeks of age).

FIGURE 2: A 13-week-old puppy with a severe class 2 malocclusion. (A) This malocclusion has resulted in an abnormal contact between the deciduous right and left mandibular canines (arrow) and incisors with the soft tissue of the hard palate resulting in an abnormal interlock. (B) Treatment included extraction of all the deciduous mandibular canines and incisors to remove that abnormal interlock and provide a more comfortable occlusion.



In puppies or kittens, interceptive orthodontics involves selective extraction of any deciduous teeth that are interfering with the development of a normal occlusion (Figure 2b). This also immediately relieves the pain from the abnormal tooth-tooth or tooth-soft tissue traumatic contact.

While extracting permanent teeth in juvenile patients is considered an interceptive orthodontic treatment, other more advanced treatments that save functionally and structurally important teeth or preserve tooth structure to resolve traumatic contacts secondary to a malocclusion should be considered first and discussed with clients. This may include using an acrylic inclined plane, crown extensions, or elastic chains and buttons (corrective orthodontics) to move teeth into a more appropriate space, or performing a crown reduction with endodontic therapy (vital pulpotomy) (Figure 3). All of these procedures are technique sensitive; they require close monitoring, and referral to a veterinary dental specialist is recommended.

The interceptive and corrective orthodontic procedures discussed help patients obtain a more appropriate, functional, and pain-free occlusion, but they do not change

FIGURE 3: (A) Severe class 2 malocclusion in a six-month-old dog resulting in a traumatic contact between the left mandibular canine (304) and hard palate. (B) A crown reduction with vital pulpotomy was performed to remove the traumatic contact and provide a more comfortable occlusion.



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FIGURE 4: Class 1 malocclusion (neutroclusion) in a 19-week-old dog. (A) Appropriate placement of the deciduous right mandibular canine (804) within the right maxillary diastema. (B) Inappropriate placement of the deciduous left maxillary canine (704). Tooth 704 is linguoverted and traumatically contacting the attached gingiva within the left maxillary diastema.

the animal's genetic makeup. Owners and breeders should be reminded of this and cautioned against breeding patients or the parents of patients who have had malocclusions treated.

TYPES OF MALOCCLUSIONS

Both skeletal and dental malocclusions can result in abnormal contact of teeth with other teeth or soft tissue. This can result in periodontal bone loss, pulp necrosis, root resorption, and oronasal fistula formation.

CLASS 1 MALOCCLUSION (NEUTROCLUSION)

This dental malocclusion is characterized by a normal rostrocaudal relationship of the maxillary and mandibular arcades but has one or more malpositioned teeth. Examples include linguoversion of the mandibular canine teeth (also known as "base narrow") (Figure 4), mesioverted maxillary canines (also known as "lanced canines"), and rostral crossbite of one or more of the mandibular incisor teeth.

CLASS 2 MALOCCLUSION (MANDIBULAR DISTOCLUSION)

This symmetrical skeletal malocclusion results in an abnormal rostrocaudal relationship between the dental arches, and the mandible resides distal or caudal to its normal location in relation to the maxilla (Figure 5).

CLASS 3 MALOCCLUSION (MANDIBULAR MESIOCLUSION)

This symmetrical skeletal malocclusion results in an abnormal rostrocaudal relationship between the dental arches, and the mandible resides mesial or rostral to its normal location in relation to the maxilla (Figure 6).

CLASS 4 MALOCCLUSION (MAXILLOMANDIBULAR ASYMMETRY)

There are several variations of this asymmetrical skeletal malocclusion. They include malocclusions that can occur in a rostrocaudal, side-to-side, or dorsoventral direction.

OTHER DEVELOPMENTAL TOOTH ABNORMALITIES

Extra or supernumerary teeth are duplicate sets of adult teeth that may or may not cause crowding or abnormal contact between adjacent teeth. Intraoral radiographs are required to determine if there are two separate teeth or two teeth sharing a common root and pulp system (gemini teeth). Surgical extraction may be necessary to prevent the development of periodontal pockets due to crowding (Figure 7).

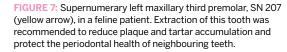
Brachycephalic patients and some small breed dogs suffer from rotated and severely crowded teeth. This encourages the accumulation of food and plaque,



FIGURE 5: Class 2 malocclusion (mandibular distoclusion) in a 12-week-old dog.



FIGURE 6: Class 3 malocclusion (mandibular mesioclusion) in a six-month-old dog.



predisposing the area to early periodontitis. Selective extraction of less significant teeth is recommended to relieve the crowding and protect the periodontal health of neighbouring teeth (Figure 8).

Enamel hypoplasia or hypocalcification due to trauma or illness can lead to focal or diffuse enamel defects. Trauma to the developing permanent tooth bud during the extraction of a persistent deciduous tooth (Figure 9), from a bite wound during the first 8 to 10 weeks of life, or from infection from a fractured deciduous tooth can result in focal lesions in teeth. Diffuse lesions involve most of the dentition and are usually the results of systemic diseases or direct infection by microorganisms such as canine distemper virus. Genetic causes for enamel developmental and maturation abnormalities, such as amelogenesis imperfecta, tend to result in generalized enamel defects and are rare.

Treatment for patients with enamel defects should involve full-mouth radiographs to determine if any teeth are non-vital. Significant enamel defects should be treated with restoration or crown therapy to protect underlying sensitive dentin and prevent contamination of dentin tubules leading to the pulp chamber. Extraction of non-vital teeth is recommended. The patients should be monitored closely to ensure their teeth continue to mature normally. Repeat radiographs are recommended six months after the initial visit and then annually. In addition, these patients will need frequent professional cleanings and meticulous home care to prevent the rapid accumulation of plaque and tartar these teeth are more susceptible to.

CONGENITAL LIP AND PALATE DEFECTS

Puppies and kittens should be examined as early as possible for congenital defects of the lip and palate (Figure 10). Most breeders recognize these soon after birth. However, during a patient's initial visit, a thorough oral examination should confirm there are no clefts



FIGURE 8: Severe crowding of the right maxillary premolars in a French Bulldog. The right maxillary third premolar (107) is also rotated. As a result, this has encouraged more rapid accumulation of plaque and tartar, compromising the periodontal health of 107 and the neighbouring premolars. Tooth 107 and the right maxillary second (106) and fourth premolars (108) were extracted due to severe periodontitis. Earlier selective extraction of 107 might have prevented the loss of 106 and 108.



FIGURE 9: Focal enamel hypoplasia of the right mandibular canine (404) in a six-month-old dog with a class 2 malocclusion. It is suspected that this lesion was due to trauma from the extraction of the deciduous mandibular canines when the dog was 10 weeks old.

or defects in the hard or soft palates or in the lips. Common clinical signs associated with these defects include difficulty nursing, nasal discharge, rhinitis, sneezing, coughing, gagging, aspiration pneumonia, and poor weight gain. These patients require extensive nursing care, including tube feeding to avoid aspiration pneumonia. Surgical correction is recommended for these defects, but it should be postponed as long as possible, ideally to three to four months of age. Surgeries performed sooner are unlikely to be successful and decrease the future chance of success.

Although the precise etiology of congenital palatal and lip clefts are unknown, genetic as well as environmental factors have long been known to be involved. Therefore, clients, including breeders, should be counselled and advised against subsequent breedings involving the patient or parents.

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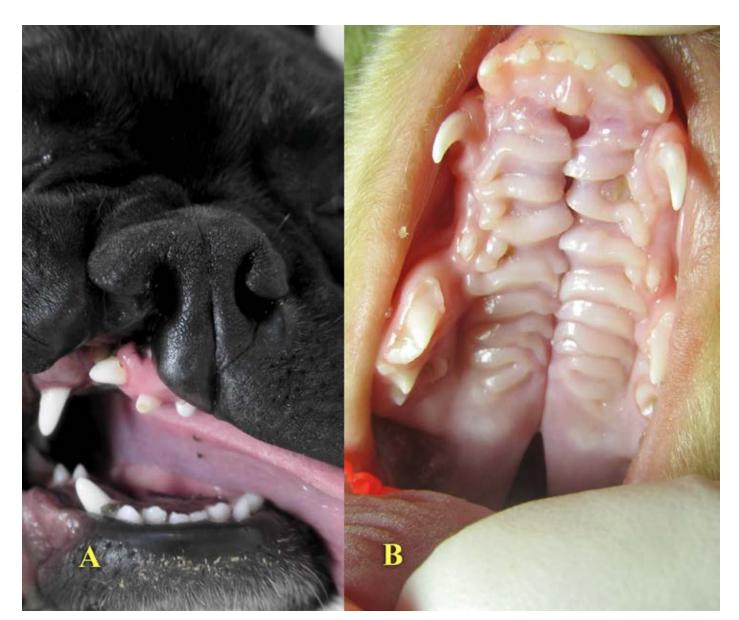


FIGURE 10: (A) Cleft lip in a 12-week-old dog. (B) Congenital hard and soft palate defect in a 10-week-old dog.

CONCLUSION

Visits with younger puppies and kittens can be a very busy time, with much of the conversation centred on vaccinations, deworming, spay or neuter surgeries, and behaviour training. But all physical examinations should include a thorough oral examination to identify oral and dental problems early. In the young patient, most dental problems involve genetic and/or developmental anomalies, including malocclusions, persistent deciduous teeth, missing teeth, and tooth malformations. Early interceptive treatment and referral to a dental specialist can help ensure a healthy, pain-free oral cavity and occlusion for the life of the animal.

"SURGICAL CORRECTION IS RECOMMENDED FOR THESE DEFECTS, BUT IT SHOULD BE POSTPONED AS LONG AS POSSIBLE . . ."

M I N D F U L N E S S M I C R O D O S I N G FOR BUSY VETERINARY TEAMS

BY ELAINE KLEMMENSEN, DVM

am going to let you in on a little secret. Until recently the word "mindfulness" along with any mention of "ashrams" or "meditation retreats" caused my mind to close with an annoying snap. I view myself as open-minded, inclusive, and caring; a person willing to not only explore but also challenge my personal biases. Really, Elaine? Open-minded? What an epic fail. When I reread these words, I not only see the judgment, I feel it. It is a glaring reminder that each of us has blind spots: the inability to notice our own cognitive biases—ways of working, thinking, and reacting that are so deeply ingrained in our world view that we fail to recognize them in ourselves. Over the past year of studying leadership, culture, and coaching, I found myself plunged into some deep reflection, painfully revealing my blind spots. I was not surprised to learn many of my core values are "doing values." Courage, mentoring, and caring are values I can lean into by "doing." I have been thinking about why I struggle to embrace simply "being" and how my ego and self-worth have become so intricately linked with productivity, activity, and action. It is high time I explored the benefits of incorporating both attention and intention (my definition of mindfulness) into my life as well as my leadership and coaching practice.

As veterinary professionals, we need to develop skills that allow us to navigate our increasingly complex world. The question is how do we find time to fit these skills into an already overbooked schedule? I believe veterinary teams long to serve their clients and patients with wisdom, empathy, and kindness while maintaining a degree of balance and care for their own well-being. The negative consequences of ignoring the effects of cumulative workplace stress, unrealistic client demands, unhealthy boundaries, and toxic team cultures have been well documented. Too often the urgent needs of our patients and the non-stop demands of our clients mean we run from one task to the next with little time to think about our own needs, let alone consider the impact this lack of mindfulness can have on our co-workers and those we lead.

COVID-19 has changed our business landscape and impacted the culture of many organizations. As we adapt to this changing landscape, the demand for our services combined with workforce shortages will stretch our teams and make our working lives busier than ever. Micropractices are intentional moments of mindfulness performed in conjunction with other routines during your day. They offer a simple, sustainable opportunity to introduce microdoses of self-care to a busy schedule. Best of all, anyone can learn these tools and quickly incorporate them into their daily routine. Tying micropractices to an existing activity embeds new habits, offering the opportunity to connect with your emotions, centre your mind and body, and consider the kind of presence you want to bring into your next appointment, surgery, or

To begin incorporating mindfulness micropractices into your day, start by identifying activities that are regular or recurring events in your schedule. By tying micropractices or "wellness moments" to these daily events, we have the opportunity to not only shift our own focus and mood but also affect the experience of those around us in a positive way. Any recurring event can serve as a cue for a wellness self-check-in:

- As you wait for your morning coffee or tea to brew
- While you pack your child's lunch box
- As you wait at a red light on the way to work
- While you scrub for surgery
- Before you grab the chart and walk into the exam room
- As you wait for your team to assemble and start morning rounds
- During your commute home as you shift from work to home life

Veterinary teams are presented with a continuous stream of external and internal stimuli to which our sympathetic nervous systems are programmed to react. Learning how to create a space between a stimulus and your reaction allows you to buffer your emotional **reaction** and shift to an intentional **response**. Learning how to pay attention to your emotions and become more intentional in the moment is a skill anyone can learn. This process is unique to each of us, so take the time to test different tools to discover which ones resonate with you.













NAME IT AND TAME IT

Acknowledging and naming our emotional state is the first step in developing self-awareness and self-management. The cognitive process of recognizing what you are feeling and naming it shifts brain activity from the amygdala, the emotional centre of the brain, to the prefrontal cortex, the higher-order thinking part of the brain. This shift acts as a reset button, bringing a new awareness and a sense of calm. It effectively moves you from a place of reaction to one of reflection.

FOCUSED BREATHING

Diaphragmatic breathing (or belly breathing) is thought to act by increasing parasympathetic activation, with studies showing an improvement in levels of salivary cortisol and blood pressure as well as self-reported stress levels by those who practice this technique. The technique can be used before making a difficult phone call, while waiting for your morning coffee to brew, or even before entering the exam room.

THREE GOOD THINGS

Another evidence-based practice that can benefit frazzled professionals is the act of writing down three things one is grateful for. This can be done daily or several times a week. It is a simple practice that has been shown to increase levels of well-being. Consider extending this practice into a group setting by starting morning rounds or team meetings by sharing "three good things" that team members identify or by giving "you're awesome" kudos to team members who have gone above and beyond for patients, coworkers, or clients. Our minds are biased to notice danger and risk. Becoming intentional about where we place our focus and shifting our attention to notice the good things can restore balance, stimulate positive emotions, and build relationships among team members.

LEARN TO S.T.O.P.

An overbooked schedule, challenging cases, and concerned owners can quickly push us into "overdrive" mode at work. Commit to learning how to reset during the day using a technique known as S.T.O.P.

- Stop: Interrupt your "automatic pilot" mode to concentrate on the present moment.
- Take: Take a breath or do some diaphragmatic breathing. Focus on bringing your attention to your breathing.
- Observe: Observe the moment. How are you feeling? Name it, tame it, and let it go. What do you need (are you hungry or thirsty, or do you just need a moment to think)?
- Process and proceed: Reconnect with your surroundings.
 Communicate what you need to others and move forward with intention.

Intentional activity is one factor that can improve chronic happiness levels. By choosing where to focus our attention, becoming intentional about our response, and learning how to attach microdoses of mindfulness to recurring events in our day-to-day activities, we can build new resources for our wellness toolbox. Having a robust set of tools to develop self-awareness and manage stress will be invaluable as veterinary teams continue to navigate the challenging and changing landscape ahead.

DEFEDENCE

In the interest of saving space, the references for this article are made available on the Chapter's website at www.canadianveterinarians.net/documents/wcv-references-september-2020.pdf.

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¹L. Meng, Z. Bian, R. Torensma, and J. W. von den Hoff, "Biological Mechanisms in Palatogenesis and Cleft Palate," *Journal of Dental Research* 88, no. 1 (2009): 22–33.

CVMA'S SMALL ANIMAL PRACTITIONER AWARD WINNER DR. SUANN HOSIE

BY SARAH ARMSTRONG, DVM

CVMA'S HUMANE AWARD WINNER DR. BETTINA BOBSIEN

BY EMILIA GORDON, DVM



the management of a small animal practice. WCV

he first time I met Dr. Bettina Bobsien in person was at the old CVBC office in North Vancouver. I had just volunteered to serve on the CVBC Animal Welfare Committee—and also had a six-week-old baby at home. When I tried to skip our first in-person meeting, she (also a mom) wouldn't hear of it—she knew how valuable it was to remain connected to the profession and to each other. I apprehensively left the house without my baby for the first time and was welcomed into the most collegial and productive group of veterinarians I have ever met. My admiration for

On the CVBC AWC, I observed Bettina's dogged determination at every turn. She stewarded many valuable projects to completion. During her tenure, the CVBC successfully introduced bylaw amendments where registrants voted in overwhelming numbers to ban canine ear cropping and tail docking. Soon after, groundwork laid while she was chair resulted in a practice standard banning feline declawing. I was not alone in feeling incredibly proud to be part of the BC veterinary community as we were among the first provinces in Canada to reach these milestones.

As a veterinarian with the BCSPCA, I have been fortunate to work with and learn from Bettina on matters relating to equine veterinary care, herd health, and barn design. She is a valued consultant, developing many of the training materials used by our Cruelty Investigations Department and continuing to provide

he first time I met Dr. Bettina Bobsien in person expert consultation. Her expertise extends beyond equine medicine and was at the old CVBC office in North Vancouver. welfare to other farm animals.

Bettina is well known as a bridge-builder and is respected across Canada for her work on the Farm Codes, including the Equine Code of Practice in 2010–2013 and the Beef Cattle Code in 2014–2018. She recently became chair of the CVMA's Animal Welfare Committee, leading efforts to improve the welfare of all animals across Canada. She is not afraid to tackle contentious issues in a direct way if it benefits animals, but always does so thoughtfully and respectfully with an eye on the big picture.

welcomed into the most collegial and productive group
of veterinarians I have ever met. My admiration for
Bettina began that day in 2014 and has grown ever since.
On the CVBC AWC. I observed Bettina's dogged

Bettina cares about the veterinary profession. One of the recurrent themes in her work has been to consider ways to elevate our profession. She believes passionately that by demonstrating leadership on animal welfare issues, veterinarians will earn the continued trust and respect of the public.

I have many fond memories of time spent with Bettina. In addition to her many professional accomplishments, she is a gracious host who loves to entertain at her home on Galiano (that she and her husband built with wood from the property). She is an excellent cook and knows about everything from gardening to fishing—if you spend enough time with her, she will feed you something she grew or caught herself. Bettina is a role model in so many ways.

Dr. Bettina Bobsien is the winner of the 2020 CVMA Humane Award. This award is presented to a CVMA member whose work has contributed significantly to the welfare and well-being of animals.

dogs has come in handy. And she warned me about my open ceilings in

IN MEMORIAM

DR. LINDA ESTELLA FERNS 1950-2020

Linda (Lyn) Estella Ferns passed away on the morning of Monday, May 11, 2020, at the hospital in Courtenay. She was born in Regina, Saskatchewan, on June 7, 1950.

Dr. Linda Ferns was a veterinary pathologist for the province of Nova Scotia and during her 32 years of practice served on the Nova Scotia Animal Care Committee. She also volunteered for many years with the SPCA in Nova Scotia and here in British Columbia as well as with the Boys and Girls Club of Nova Scotia. Earlier in her life, Lyn spent much of her spare time in the wilderness enjoying activities such as canoeing, camping, and hiking. In recent years, Lyn was an avid reader and interested in genealogy.

She is predeceased by her father, Philip Ferns, and mother, Elizabeth Ferns.

She will be deeply missed by Bill Tower, her husband of 32 years, her brother Leonard Ferns (Angie), daughter Pam Nickerson (Jeff), and stepdaughter Tara Brown (Danny). She is survived by grandchildren Serena, Dakota, Jonah, Carson, and Jaxson, and great-granddaughters Aurora and Avianna.

Provided by Bill Tower

DR. JOHN G. WALKER 1930–2020

John G. Walker, DVM, passed away August 6, 2020. John was born July 3, 1930. John graduated from the Ontario Veterinary College at Guelph in 1957.

After graduation, John started a mixed practice in Duncan. He then worked at the provincial laboratory in Abbotsford for about four years before moving to Nanaimo and starting another mixed practice. John and his wife, Jo, have lived in Penticton since 1976.

Provided by Al Runnells, DVM





NOVEMBER 7 AND 8, 2020 SBCV CHAPTER

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SUNDAY NOVEMBER 8, 2020:

IMAGING WITH DR. SALLY SUKUT, BSc, DVM, Dipl. ACVR (3 HOURS)
ENDOCRINOLOGY WITH DR. ANN DELLA MAGGIORE, DVM, Dipl. ACVIM (SAIM) (3 HOURS)

12 HOURS CE ONLINE

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STRATEGIES TO IMPROVE ANTIMICROBIAL STEWARDSHIP IN VETERINARY PRACTICE

"...ANTIMICROBIAL RESISTANCE IS A SIGNIFICANT HEALTH RISK TO BOTH PEOPLE AND ANIMALS IN EVERY PART OF THE WORLD."

BY ERIN FRASER. BSc. MSc. DVM. AND BRIAN RADKE. Phd. DVM

cross Canada, resistant bacterial infections contributed to over 14,000 human deaths in 2018 alone; this is about 1 in 19 deaths in Canada. The threat posed by antimicrobial resistance is compounded by a continuing decline in the development and approval of new antimicrobials. It is now well recognized that antimicrobial resistance is a significant health risk to both people and animals in every part of the world. All sectors that use antimicrobial agents play a role in the development of antimicrobial resistance, including veterinary and human medicine, animal and plant agriculture, and consumer products. All these sectors also have a responsibility to apply antimicrobial stewardship practices to curb the spread of antimicrobial resistance.

In Canadian veterinary medicine, recent policy and regulatory changes have strengthened the oversight of medically important antimicrobials. Between 2016 and 2017, total antimicrobials used in BC animals decreased by 40 per cent. In 2017, antimicrobial use measured in kilograms in BC production animals was 17 times that of BC companion animals. However, the weight of fluoroquinolones used was similar between the two groups, and the weight of cephalosporins used in companion animals was five times as much as in production animals. From its peak in 2008, the use of over-the-counter antibiotics in BC, including antibiotics administered in feed, has decreased by 16 per cent. From 2017 to 2018, over-the-counter use declined by 7 per cent.

In BC, significant efforts in public health have led to reduced antimicrobial use and resistance rates in people. Antibiotic prescribing by BC physicians has declined by 27 per cent since 2005. In this same time period, prescriptions for BC children less than one year old have declined by 65 per cent; this reduction has been associated with a decline in early childhood asthma. While there many differences between the practice of human and veterinary medicine, there are also many parallels when it comes to antimicrobial use, including 1) the types of antimicrobials prescribed; 2) factors that influence antimicrobial prescribing patterns; and 3) logistical and financial constraints and opportunities when prescribing antimicrobials.

DEVELOPMENT OF ANTIMICROBIAL RESISTANCE

The two primary mechanisms by which bacteria acquire antimicrobial resistance are through either mutation or horizontal gene transfer. DNA mutations in the bacterial cell occur during replication due to the pressure of antimicrobial agents. Bacteria with resistant genes then replicate and pass on these genes to subsequent generations. Horizontal gene transfer occurs when a gene is passed from an unrelated bacterium through the movement of genetic elements. This process takes place primarily through three mechanisms: conjugation, transduction, and transformation. The transmission of resistance gene elements is particularly concerning because the genes that code for resistance can be exchanged between different species of bacteria.

Resistance is acquired by 1) selection pressure exerted on bacteria from antimicrobial treatment; 2) environmental exposure to contaminated surfaces, water, or food; or 3) direct exposure to resistant bacteria or mobile genetic elements (i.e., plasmids) that are carried by humans or animals. However, the most important risk factor for acquiring a resistant bacterial infection is prior antimicrobial treatment.

VETERINARIANS AND ANTIMICROBIAL STEWARDSHIP

Veterinarians can slow the spread of antimicrobial resistance and preserve the effectiveness of antimicrobials by actively and consistently implementing antimicrobial stewardship practices. Antimicrobial stewardship involves a series of activities that leads to the appropriate selection, route, dosing, and duration of antimicrobial therapy. Effective antimicrobial stewardship efforts promote positive animal health outcomes, minimize adverse effects, and reduce antimicrobial resistance.

BC veterinarians can use the following strategies to improve antimicrobial stewardship:

Prevent infections and minimize the need for antimicrobials.
 Work with your staff and clients to raise awareness of the
 benefits of regular animal health checks. Develop integrated
 disease control programs including vaccination and parasite
 control, nutrition and weight control, preventive dental care,
 isolation of infected animals, and other infectious disease
 prevention and control measures.

- Avoid inappropriate use of antimicrobials. Do not treat uncomplicated viral infections. Limit antimicrobial use to ill or at-risk animals. Provide advice and support to clients on the proper administration and handling of antimicrobial products.
- 3. Select the right drug for the right bug. Use evidenced-based protocols for common infections, such as those developed by the CVMA. Customize these protocols, or develop specific protocols, for your practice. Increase the knowledge base across your practice of antimicrobial mechanisms and drug-specific properties. Identify the likely target organisms and predict their susceptibility. Whenever possible, prescribe narrow-spectrum antimicrobials and use antimicrobials of least importance to human health.
- 4. Monitor culture and sensitivity. When possible, perform culture and sensitivity testing and adjust treatment plans to prioritize prescribing first-line, narrower-spectrum antimicrobials. Stay informed of antimicrobial sensitivity trends. Potential sources of these trends are currently few and are typically focused on livestock and poultry. They include national data from the Canadian Integrated Program for Antimicrobial Resistance Surveillance and provincial data from the BC Ministry of Agriculture. Private veterinary diagnostic laboratories are future potential

- sources of antimicrobial resistance trends, especially for companion animals. Clinics can also monitor their practice-specific trends.
- 5. Minimize use of antimicrobials. Prescribe only when necessary and when there is evidence that antimicrobial therapy will reduce illness. Consider watchful waiting when appropriate. For surgical procedures, apply effective sterile technique and infection prevention practices that minimize the need for antimicrobial therapy. Limit antimicrobial prophylaxis in dental procedures, as systemic antibiotics are not indicated in most procedures. Where possible and appropriate, use symptomatic relief or topical treatments.
- 6. Document, review, and adapt practices. Record and justify deviations from protocols or guidelines. Regularly review prescribing practices and evaluate how they align with practice protocols and treatment guidelines. Seek to continuously improve prescribing practices.

There is still much work to be done in human and veterinary medicine to reduce antimicrobial resistance and improve antimicrobial prescribing practices. BC veterinarians can do their part to slow the spread of antimicrobial resistance by reducing infection rates in their patient base, reducing antimicrobial use, and prescribing antimicrobials responsibly. Antimicrobial stewardship in veterinary practice requires commitment, communication, and leadership. There are tangible, stepwise measures that each veterinarian and each practice can take toward improving antimicrobial use and preserving the effectiveness of antimicrobial agents.

REFERENCE

In the interest of saving space, the references for this article are made available on the Chapter's website at www.canadianveterinarians.net/documents/wcv-references-september-2020.pdf.



Erin Fraser, BSc, MSc, DVM, is the BC Centre for Disease Control's public health veterinarian. She received her BSc in 1993, DVM in 1998, and MSc in 1999, all from the University of Guelph. She has over 20 years of experience as an epidemiologist, public health veterinarian, researcher, and executive director. Dr. Fraser's professional interests include animal health, public health, zoonotic diseases, antimicrobial use and resistance surveillance, and food security. She co-founded Veterinarians without Borders-Canada, and has worked with interdisciplinary and multicultural teams to develop programs and projects that address public and animal health issues.



Brian Radke, PhD, DVM, is a public health veterinarian at the BC Ministry of Agriculture's Animal Health Centre in Abbotsford. Following graduation from the WCVM in 1989, Brian spent five years in private veterinary practice in Ontario and the Fraser Valley with a focus on dairy herd health. Following a PhD in agricultural economics from Michigan State University, he was employed by Alberta Agriculture as a dairy cattle research veterinarian and a research economist. Dr. Radke was a public health veterinarian at the BC Centre for Disease Control for five years before joining the Ministry of Agriculture in 2011.



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REFERENCES

- 1. Galliprant Canadian product label
- 2. Kirkby Shaw K, Rausch-Derra L, Rhodes L. Grapiprant: an EP4 prostaglandin receptor antagonist and novel therapy for pain and inflammation. Vet Med Sci. 2015;2:3-9.
- 3. Rausch-Derra L, Huebner M, Wofford J, et al. A prospective, randomized, masked, placebo-controlled multi-site clinical study of grapiprant, an EP4 prostaglandin receptor antagonist [PRA], in dogs with osteoarthritis. J Vet Intern Med. 2016;30(3):756-763.

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FROM A LAWYER

BY SCOTT NICOLL, BA, MA, LLB

ou are a registrant of the College of Veterinarians of BC, and you have just received a notice from the College that you are the subject of a complaint to the College by a former client. What do you do?

It's a question I hear often from other regulated professions, and my advice is always the same: Let's begin

with what you do not do. You do not pick up the phone and call the College. Regulatory colleges exist to protect the public interest—not to protect registrants.

To illustrate this point, take a moment now to open another screen and review section 3 of the Veterinarians Act of British

To illustrate this point, take a moment now to open another screen and review section 3 of the Veterinarians Act of British Columbia; you won't see anything in that section that makes reference to acting in the interest of veterinarians. The first thing you see is that the short and concise obligation of the College is above all else to act to "protect the public interest." It must also always act in the public interest while exercising its powers and duties under the Act.

This means that wherever your interest may be different from how the College defines the public interest, your interest will conflict with the interests of the College. When you have received notification of a complaint from the College's Investigation Committee, your interest is in conflict with the public interest and therefore with the interest of the College. That is why I do not recommend that you call the College when you first receive notification of a complaint. The College is not a colleague, or a confidant, or even your friend. What is more, they should not be. That is not their job, as much as you might wish that were the case at that moment. The College is your regulator, and you should always expect them to act accordingly.

Instead, what you should do is get advice. As a lawyer who acts for regulated professionals who are the subject of complaints to their professional colleges, of course I am going to tell you to call a lawyer experienced in this area. I understand, however, how many professionals do not want their first call to be to a lawyer when this type of thing arises. You may have colleagues with whom you are comfortable discussing such matters. It is always a good idea to discuss such matters with people whose opinions and counsel you have come to trust. Once you have been able to discuss the matter and move beyond your initial emotional reaction, my advice remains that you should seek legal advice before responding to the College. I say this because you want to ensure that your response does not make the initial complaint worse.

A typical response from the recipient of a complaint notice is to assume that the matter is just a misunderstanding. Many veterinarians might assume a complaint will be easily resolved with a simple call to the College to explain your perspective. Once the College understands what really transpired, the matter will be resolved, and you will not need to deal with it further. Please understand that this is rarely, if ever, the case. Once you are ready to respond to the College, do not assume that your response alone is likely to resolve the matter. To do so is to fail to understand the process that the complaint will typically follow.

There is a process that each complaint must go through in most cases. The process involves the initial review and, if necessary, collection of additional information by the Registrar. Once the Registrar has collected sufficient information, they are required to forward that complaint to the Investigation Committee. The committee will then determine whether the complaint raises a *bona fide* concern about your practice or conduct. If the committee determines that it does, the committee will notify you of the complaint, unless they decide it is not in the public interest to do so. If they notify you of the complaint, they will typically ask you to respond to specific issues of concern raised by the complaint.

Your response to the College is the beginning of the process, not the end.

You have an obligation to cooperate in the committee's investigation, in addition to the duty that you also have simply to respond promptly to all communications from the College. If you fail to cooperate with the investigation, you may be disciplined for that infraction in addition to any discipline that may result from the initial complaint. An investigator is typically appointed to collect information from the complainant and from you. That investigator then produces a report to the Investigation Committee. You will likely be asked to provide additional information in the form of records and other information in the course of the investigation.

Your obligation to cooperate with the investigation, however, if not approached with caution can evolve into an exercise in further self-incrimination. This is an important reason for you not to call the College yourself. Do not mistake your obligation to cooperate with an obligation to disclose anything and everything that may come into your mind regarding a particular circumstance. The usual caution in these circumstances is to answer any questions fully and completely and volunteer nothing further. You do not typically assist your situation by disclosing information that you were not asked for. The decision whether to disclose information about a matter that was not requested from you should be taken with extreme care and typically only after seeking legal advice. This may be extremely trite legal advice, but it remains the case that talking too much to anyone conducting an investigation into your practice or conduct is never a prudent strategy, whether you believe you have acted without fault or not. Also, your liability insurance may cover you for some type of legal advice or assistance, so you should ensure you are aware of such

Having cautioned you regarding your interactions with the College while you are the subject of an investigation by them into your practice and conduct, it is also the case that much of the time your interest may not depart from the College or the public interest. Please do not misinterpret this caution as being advice that you should always be suspicious of the motives or actions of the College. That is not what is intended, and that would be a mistaken and unwarranted approach. The inherent conflict of interest I identified above will not be a subject of concern for you in all interactions with the College. It is upon receipt of a notification of complaint from the College that the conflict of interest arises and you must proceed with the cautions I have identified.

Professional organizations are available to offer advice and assistance to members who may find themselves facing difficult situations related to their practice, including being the subject of an investigation by the College. While these member service organizations are unable to provide you with legal or other advice directly regarding how to proceed in the face of a College complaint, they can assist you in obtaining suitable advice from others, including colleagues and other professionals.

I am currently working with the SBCV Chapter to develop handout material and participating in their discussions on the possibility of forming a member resiliency committee, which might include peer support to those facing regulatory

Watch for future announcements from the SBCV Chapter on

"IF YOU FAIL TO COOPERATE WITH THE INVESTIGATION, YOU MAY BE **DISCIPLINED FOR** THAT INFRACTION IN ADDITION TO ANY DISCIPLINE THAT MAY RESULT FROM THE INITIAL COMPLAINT."



Scott Nicoll, BA, MA, LLB, is a member of the Law Society of British Columbia and a partner at Panorama Legal LLP. He acts for professionals, including defending professionals who are the subject of complaints to their professional colleges.

CAN WE SEE YOU?

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WEST COAST VETERINARIA



Rick Stanley, DVM



Christiane Armstrong, DVM



Sarah Armstrong, DVM, Chair



Adriana Silva

Eva van Emden

Corey Van't Haaff

Kathryn Welsman, DVM

CHAPTER OFFICE STAFF AND SUMMER STUDENTS



WHO'S WHO IN THE VETERINARY WORLD

RAYNA GUNVALDSEN, BSA, MSc, DVM, is BC's new Chief Veterinarian, Animal Welfare and Dairy Program Veterinarian YANYUN HUANG, BAgr, MSc, PhD, DVM, Dipl. ACVP, is the new CEO of Prairie Diagnostic Services in Saskatchewan DORIS LEUNG, DVM, is the new communications lead at the Canadian Animal Health Surveillance System GILLIAN MUIR, PhD, DVM, is the acting dean of WCVM; Dr. Douglas Freeman will not be pursuing a third term due to personal circumstances

JANE PRITCHARD, DVM, MVetSc, is CVBC's interim registrar

ALEXANDRA PROTOPOPOVA, PhD, takes on the inaugural NSERC/BCSPCA Industrial Research Chair in Animal Welfare

woman enters a veterinary clinic with her injured dog. She won't say what h<mark>appened,</mark> but it is obvious to all but the most casual observers. Both the woman and the dog are -both are wary. She knows that the dog ne<mark>eds medic</mark>al treatment but is hesitant to consent although she eventually does. She leaves the clinic while the procedure takes place. A short while later, the phone rings. The receptionist answers and on the other end she hears screaming and swearing. It is the husband. He says that he is the owner of the dog and that his wife cannot consent to any treatment. That he won't pay and neither will she, and if any procedure is performed he will leave a scathing review online. His threats escalate until the staff alert the police. Both husband and wife show up at the clinic. The husband is intoxicated. He leaves the clinic with his wife and dog, and is pulled over and arrested as soon as he leaves the parking lot. The dog has received no treatment—as much as the veterinarian wanted to help, they knew they could not treat the animal given the husband's adamant instructions that no treatments were authorized. Obviously, if the pet had shown signs of abuse, the veterinarian would have had a duty

Domestic violence.

When I first heard this term, my mind immediately gravitated toward the act of physical violence. The words themselves suggest that it is only a physical issue. Violence in and of itself is a behaviour that causes physical harm to something or someone, and yet I have learned that domestic violence spans every form of harm, emotional, psychological, sexual, financial—think of all the ways one person could hurt another, and that will fall under domestic violence.

I think back to the interactions I've seen in people close to me. Once my friend's partner screamed at her because she didn't hold the elevator door long enough for him. He called her a derogatory name, but quickly

PERMICE

calmed down when she apologized. Another friend mentioned to me that she had gained weight and that her partner refused to look at her until she lost it. She made excuses for him when I pressed the issue. In passing, these stories may appear to be couples bickering, but looking at them now, it is clear to me they were verbal abuse, one of the most subtle forms of domestic violence and something that could easily be missed. The same partner who yelled at my friend claimed to be a lover of animals. Until he noticed dog hair. Until he noticed dirt or slobber. He would carry a lint brush with him, and he refused to allow my dog in his home. I could see the anger building up inside him when my dog would jump up. Some time after he split with my friend, I saw his name in the news. He had been arrested for assaulting a new girlfriend.

I always wondered what many people likely wonder: why doesn't she just leave? As a result of the work I've done around domestic violence, of what I've witnessed and what I've been told, the answer has become very clear to me. Because she can't.

Generally, when someone is in a relationship, they look to their partner for reassurance and as someone to love and trust. They assume the best and don't expect the worst. This is why emotional abuse can be subtle at first. It can creep in disguised as a compliment to slowly attack her self-esteem, and then escalate to full-blown verbal attacks. It can start with derogatory pet names that pretend to be cute but are really insulting. It can escalate to inappropriate jokes or sarcasm, making fun of her in public. Finally, it can turn into blatant insults, belittling and defiling her character. These types of criticism can wear away at her until she starts to believe it. "Maybe he's right. Maybe I am ugly or stupid, maybe nobody else will want me." The purpose of this is to shatter her self-worth to the point where she feels like she cannot leave because she has nowhere to go.

Animal abuse falls under the category of emotional abuse. The pet that esurvivor loves and cherishes is used to manipulate her emotions. Often the survivor loves and cherishes is used to manip the perpetrator will threaten to harm the animal if the woman leaves or disobeys him. In one case mentioned to me by a police officer, a woman had left her husband. She was fearful for her two dogs left behind, but she had to

leave for her own safety. Her former partner took both dogs to a veterinarian and had them euthanized just to hurt her.

Sadly, in a lot of domestic violence relationships, the male partner has control over all assets, finances, and usually over

the survivor's income. This means that if she were to leave, she would have no money and no means to support herself. This is specifically why it is done: to control where the survivor goes and what she is able to do. It is close to impossible to start a new life with no money, especially if you have pets. It is also very challenging to get her pet to a veterinarian if her abusive partner controls all of her finances. Another reason why it would be very hard to leave.

Though these are just a few examples of types of domestic violence, they paint a very specific picture of control tactics. The abuse may not be as easy

to recognize as a black eye, but it is no less damaging These types of abuse are

also severely underreported

themselves do not feel it is serious enough to report, or they fear the repercussions from their partner.

Most veterinarians want to help. Although they got into veterinary medicine to help animals, many veterinarians I've met who are learning about the role of animals in domestic violence end up wanting to know how they can also help the person who

wants to escape the situation. As a veterinarian, you may wish to know what different types of domestic violence look like and how these signs may show up in an examining room alongsic the animal. The physical manifestations of domestic violence are much easier to spot, but what happens when an animal owner is belittled in front of a veterinarian by their partner or when he is making all of the treatment decisions when it is clear that is not what she wants? He never lays a hand on her, but it is clear to the veterinarian that she is not a willing participant in the decisions made. The veterinarian may wonder, is that abuse? And if

The Chapter is currently looking at introducing a project that will provide an avenue to allow veterinarians to help the animals of those

so, what can they do about it?

fleeing domestic violence. Should the project become feasible and be approved, Chapter members will receive an email to show them how they may help. WCV

VIOLENCE

INTIMIDATION:

COERCION AND THREATS:

MALE PRIVILEGE:

ECONOMIC ABUSE:

Preventing her from getting or keeping a job. Making h ask for money. Giving her a allowance. Taking her mon Not letting her know about have access to family incom

AND

USING CHILDREN:

essages. Using

CONTROL

POWFR

EMOTIONAL ABUSE:

ISOLATION:

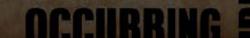
feel bad about herself. Calling her names. Making he think she's crazy. Playing min games. Humiliating her. Making her feel guilty.

WINIMIZING, DENYING

VIOLENCE

The power and control wheel illustrates the dynamics of one type of domestic violence abuse by a man against a female partner. These are ways that an abuser can use coercion,









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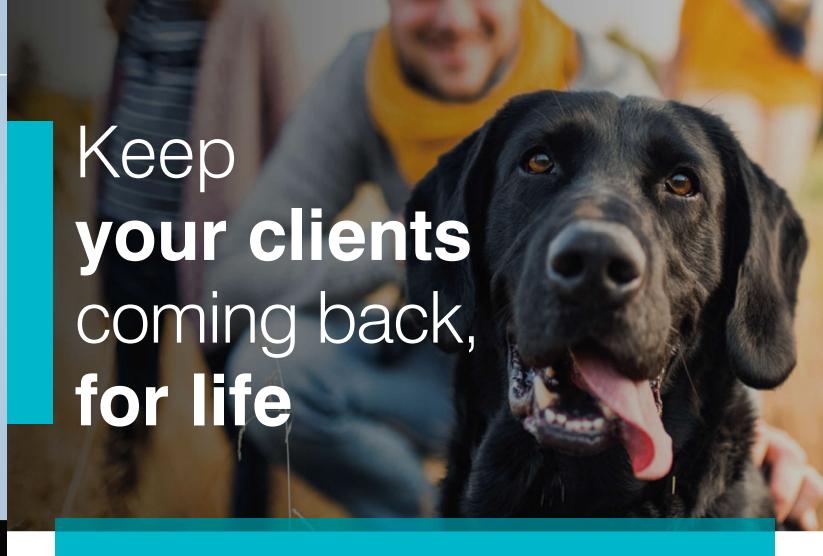












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