WEST COAST DELEGATOR DINE 2023 [Nº 51] JUNE 2023 [Nº 51] BEHAVIOURAL ISSUES IN COVID COMPANION ANIMALS

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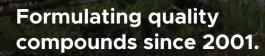






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FROM THE EDITOR



COREY VAN'T HAAFF FDITOR

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

A yellow Lab puppy after destroying a living room. Photo by atwstudios/ istockphoto.com

recently joked with the SBCV Board that I wasn't sure how I would fill my time now that the BC government has permanently funded 20 additional seats for BC-funded students, bringing the total to 40. We were (and frankly still are) elated at the news. I've worked continuously on this issue since October 2018, when most of the directors and I made a very hopeful trip to the legislature and spoke to the Minister of Agriculture and Food. Our request received full support, but while we didn't think it was going to be easy or fast, I don't think any of us would have guessed it would take until March 2023-53 months-to hear the good news that there are now 40 IPA (interprovincial agreement) students from BC.

The question of how I'd fill my time was, of course, not a serious one. There is certainly much more for the SBCV to do on the labour shortage front to address the many negative effects of not having enough veterinarians (and techs and support staff) to address all the animal health and welfare needs, public safety concerns, and food animal necessities in our province. We are being consulted widely on initiatives to be sure they will be meaningful for BC's veterinary labour issues.

More than that, my time has already been claimed by a number of projects. We just finished a collaborative project with the CVBC, based originally on a Canadian Council of Veterinary Registrars (CCVR) initiative, that outlines how veterinarians and clients can work together in these difficult times to better address the health needs of their animals. You'll find a poster in this magazine that you can post in your practice, and an e-version at www.canadianveterinarians.net/media/g0spltfb/ccvr-bestcare-final.pdf that you can share in client emails or on your social media account.

We are also (finally) ready to launch our Peer Support 4 Veterinarians program, which was stalled as we worked through an issue with the CVBC. Many of you have already attended one of our Wellness Wednesdays, which are fabulous mini-sessions offering real actionable plans to address resiliency. These are solely for SBCV members and are free to attend. You can sign up at www.eventbrite.ca/e/ wellness-wednesdays-some-great-advice-for-sbcv-members-only-tickets-537875629487.

We are working with our summer student on a TEAMS project: teaching empathy and appreciation to mitigate stress. You've likely received an email asking you to participate. The project will be in full swing over the summer.

Please remember, we are always ready to take your calls or emails and talk about what you need from the SBCV. We value and appreciate our members and work to inform and support all of you.

Quitaal Email: wcveditor@gmail.com

SAVE THE DATE **SBCV FALL CONFERENCE & TRADE SHOW NOVEMBER 4 AND 5, 2023 IN RICHMOND**



WEST COAST VETERINARIAN ISSUE 51

West Coast Veterinarian is the quarterly magazine of the SBCV



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CVMA'S DISTINGUISHED MEMBER AWARD WINNER DR. ROBERT ASHBURNER



he Distinguished Member Award is presented to a CVMA member for long and outstanding service to CVMA or for outstanding contributions to the veterinary profession. The recipient of the award for 2023 is SBCV Board member and treasurer Dr. Rob

Dr. Ashburner's nomination details a long allegiance with CVMA, dating back to 1989. He graduated with a DVM from WCVM in 1984, starting at West King Edward Animal Clinic in 1988. He was chair of the National Issues Committee from 1998 until 2002; BC representative on the CVMA Council, 1999–2007; SBCV Representative, 2011–2017; president of the CVMA, 2005–2006; chair of the Economic Survey Committee for BCVMA, 2005–2009; and board director of the CVMA-SBCV Chapter, 2010-present. Dr. Ashburner was a founding member and advisory board chair, Animal Welfare Program, University of British Columbia, 1996–2010, and a member of the CVMA National Examination Board, 2005-2010. He was the Canadian representative, National

Commission on Veterinary Economic Issues, 2005-2010, and is a Canadian member on the Council on Site Visitation Teams, 2008– present.

Dr. Ashburner is a frequent and vocal proponent of the sanctity of veterinary medicine, working to educate others regarding the harms and risks of

"HE CONTINUES TO ADDRESS THE SHORTAGE OF VETERINARIANS BY SUPPORTING THE DEVELOPMENT OF THE SBCV'S RESILIENCY PROGRAM TO HELP BC VETERINARIANS SURVIVE AND THRIVE IN THE FACE OF THE CURRENT LABOUR AND ECONOMIC CHALLENGES."

unauthorized practice or scope-of-practice-creep. He was the veterinarian of record in the SBCV's efforts to bring attention to the issue of dangerous dog legislation and the need for the involvement of a veterinarian prior to such a designation being imposed. He supports the continuing education of BC veterinarians, and his actions include concerted efforts to educate on communication skills, equity, diversity and inclusion, and antimicrobial stewardship, in addition to veterinary medicine topics. He was a vital participant in the 2019 BC Veterinary Labour Market Study and was a key voice in successfully advocating for the permanent increase of provincial government funding to WCVM for 40 BC students each year.

He continues to address the shortage of veterinarians by supporting the development of the SBCV's Resiliency program to help BC veterinarians survive and thrive in the face of the current labour and economic challenges. He frequently meets with remote, rural, and northern interest groups to address the particularly dire situation with staffing veterinary practices. He also is a frequent participant in the admission process at WCVM.

We congratulate Dr. Ashburner on this magnificent achievement.

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- . Chappell K, Paarlberg T, Seewald W, et al. A randomized, controlled field study to assess the efficacy and safety of lotilaner flavored chewable tablets (Credelio® Cat) in eliminating fleas in client-owned cats in the USA. Parasite Vector. 2021;14:127 . Credelio Cat Product label
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KOHARIK ARMAN, BSc, DVM, graduated from the Atlantic Veterinary College in 2007 and entered feline-specific practice in Ottawa. She moved to Vancouver in early 2009 and worked at Cats Only Animal Hospital for almost 13

years. She also did some locum work at North West Nuclear Medicine for Animals, is a member of the Board of Directors of the CVMA-SBCV Chapter, and is currently working as a veterinary consultant for TELUS Health MyPet.



AMIN AZADIAN, DVM, graduated from the University of Tabriz, Iran. He is currently doing his PhD research on individual and breed differences in domestic dogs at the University of British Columbia's Animal Welfare Program. His

previous research was focused on behaviour-health interaction and dementia in domestic cats.



KATELYN BEHM, BSc, DVM, received her BSc in biology from the University of British Columbia, going on to earn her DVM from Ross University and attending Cornell University for her clinical training. Since graduating, Katelyn has worked

in both general practice and emergency medicine, and has a keen interest in surgery. Katelyn serves as the Chair of the SBCV Animal Welfare Committee and is passionate about how veterinary medicine can make a positive impact in our community.



CAMILA CAVALLI, PhD, is a postdoctoral research fellow in the Animal Welfare Program at the University of British Columbia. Her research focuses on dog behaviour, particularly the impact of life experiences on learning and welfare. Most of her previous research focuses on therapy dogs.



NICOLE FENWICK, MSc, is a graduate of the UBC Animal Welfare Program. In her work at the BC SPCA she leads the AnimalKind accreditation program and develops sciencebased, humane standards for animal-related services,

including wildlife control, dog training, and pet care services. She is past volunteer board chair for the Canadian Society for Humane Science.



MARK HARMON, DVM, DACVIM (Cardiology), obtained his DVM from the University of Missouri in 2011 and completed a rotating small animal internship at the University of Pennsylvania, followed by a cardiology specialty internship and then residency at the University of Missouri.

His residency research was focused on a novel description of dilated cardiomyopathy within the standard Schnauzer breed. He has been a boardcertified cardiologist since 2017, and has been a cardiologist with Boundary Bay Veterinary Specialty Hospital in Surrey, BC, since 2020. His professional interests include interventional treatments for congenital and acquired cardiac diseases and dilated cardiomyopathy.



ELAINE KLEMMENSEN, DVM, CEC, is always up for an adventure, especially if it involves people, pets, and creating connections in veterinary medicine. A self-described nerd about leadership, workplace culture, and organizational

development, Dr. Klemmensen is a Certified Executive Coach holding the ACC-level certification with the International Coaching Federation as well as a certificate in Values-Based Leadership. Dedicated to helping veterinarians and their teams move from surviving to thriving, she founded Evolve Leadership Coaching and Consulting and is currently studying visual facilitation and strategic thinking. She lives in the beautiful West Kootenays and when not learning something new is most likely exploring the world by bicycle with her husband, Rob.

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WCV CONTRIBUTORS



JOSEPH KRAHN, BSc, is currently an MSc student in applied animal biology in the University of British Columbia's Animal Welfare Program. His research focuses primarily on the competitive social behaviour of

dairy cattle. His recent work investigates how we determine emotional state in dogs.

JULIA MILLER, PhD, DVM, is a veterinarian and assistant professor at the Wrocław University of Environmental and Life Sciences. She joined the Animal Welfare Program at the University of British Columbia

as a visiting researcher. She is particularly interested in studying factors influencing dogs' welfare and the human-animal bond.

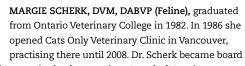


ALEXANDRA PROTOPOPOVA, PhD, CAAB, has a doctorate in behaviour analysis from the University of Florida. She is an assistant professor in the University of British Columbia's Animal Welfare Program. Her

research focuses on the physiology and behaviour of and welfare problems experienced by companion animals housed in shelters and pet homes.

> CATHERINE (CATHY) SCHUPPLI, BSc, MSc, PhD, DVM, is a clinical assistant professor in the Animal Welfare Program and a clinical veterinarian in UBC Animal Care Services. Her research and clinical practice interests

include understanding human-animal relationships, research ethics, and practical ways to improve the emotional experiences of animals involved in animal research. Her work attempts to apply research findings to improve policy and practice and resolve conflict related to animal welfare.



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.



CATHARINE SHANKEL, BSc, DVM, is an emergency veterinarian and medical director at VCA Vancouver Animal Emergency and Referral Centre. She graduated from the Western College of Veterinary Medicine in

2004, where she was awarded the Faculty Gold Medal. She has been practising emergency medicine since 2005 and is passionate about medical ethics, patient safety, and cultivating the field of emergency medicine into a sustainable career.



MONICA THOMAS, VTS (ECC), has been an RVT at an emergency and specialty referral hospital for the past 15 years and obtained her VTS (ECC) in 2017. She also works at a biomedical research facility at an academic

institution, working primarily with pigs and sheep, and also training and educating on emergency and critical care processes. Monica is currently in the early stages of starting her own consulting and education business with plans to build and strengthen veterinary teams by giving them confidence and competency through knowledge and training.



bout a year ago, I was going through the same trial of what to say about the shortage of veterinarians, the great stress almost all of us work with, and the SBCV's efforts to get the province to double the number of IPA (interprovincial agreement) funded seats at WCVM for BC students. First, the government had agreed to allow more than 20 BC students to enrol if they paid their own way: \$69,000 per year rather than the IPA rate of \$11,000. Then, a year or so ago, the government agreed to fund an additional 20 BC students (as well as the already attending non-IPA students) as if they were all IPA, but only for one year. It was a move that left most of us confused and very concerned.

This spring, the government made the announcement we had all been hoping for: it permanently funded 40 BC students at WCVM. Hope is now clearly on the (albeit distant) horizon. When the announcement was made, I was quite pleased, as we at the SBCV had devoted four years, beginning October 2018, to pushing for the number of BC IPA seats to be doubled. We knew that having more BC students graduate as veterinarians was the best way to begin to address the current shortage of veterinarians. A doubling of students was a promise that in four years, life could become more bearable. The profession would be served, and the public might find it easier to find veterinarians to help look after their animals. The Ministry of Post-Secondary Education and Future Skills is looking at a variety of potential options to help address the shortages, beyond the 40 new grads each year. We sincerely thank the new Minister of Post-Secondary Education and Future Skills and the new Minister of Agriculture and Food for their decision.

We would also like to extend a very sincere thank-you to Delta South MLA Ian Paton. He has been working hard to get the government to pay attention to all the stresses affecting veterinarians, their staff, their clients, and of course, the patients-the animals. We at the SBCV are thrilled by the decision to permanently increase funding to support 40 students at WCVM on a permanent basis. Many thanks to our executive director, Corey Van't Haaff, for communicating and discussing the issues with the current government as well as sending information about the issues to every MLA in BC. She and her staff were determined to successfully increase the number of BC students from 20 to 40, and kept in contact with everyone involved, including the media and the students.

There is more to do, though—much more. The SBCV continues to advocate on behalf of its members for additional resources to support veterinary practices. And we continue to play an important role at WCVM. We support WCVM in its goal of attracting BC students with prior experience in commercial agribusiness and farming. To address the increased intake, we have two BC reps on the intake committee: Dr. Jess Robertson and Dr. Cori Stephen. Jess brings experience in urban small animal practice while Cori brings northern, rural mixed animal perspectives. Both are to be applauded for their enthusiastic efforts to help find the next 40 BC students.

Changes are happening. The next year is shaping up to be very exciting.

As always, have a great summer, and if you find yourself driving or sitting somewhere comfortable listening to some tunes, I'd love it if you'd consider some of my favourites:

- 1. Richard Burton narrates the story of Jeff Wayne's musical version of The War of the Worlds, featuring Justin Hayward of the Moody Blues among others. It is dynamic and beautiful. You can get lost in the music and Burton's great voice as he tells you the story.
- 2. Long John Baldry's A Thrill's a Thrill: The Canadian Years has his best work.

3. David Bowie's A Reality Tour: I like "The Man Who Sold the World" the most.



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

dogs, and cats and coaches youth soccer in his spare time.

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

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2023 CVMA Convention is July 6-9 in Quebec City

The CVMA is excited to celebrate our 75th anniversary in historic Quebec City during the 2023 CVMA Convention. The CVMA Professional Development Committee has developed a stellar program offering over 100 hours of continuing education (CE) on subjects including business management, companion animal, equine, ruminant, professional wellness, animal welfare, One Health, and more. The convention features several signature events, including the CVMA Summit facilitated by CVMA's president-elect, Dr. Trevor Lawson, the CVMA National Issues Forum, and the CVMA Awards Gala. These events offer unique networking, engagement, and learning opportunities. Please visit our website at www. canadianveterinarians.net for more information on the scientific program, speaker lineup, registration, and tourism opportunities.

WE ADVOCATE ON YOUR BEHALF FOR IMPROVEMENTS TO ANIMAL WELFARE

CVMA Writes Letter to Mr. Erskine-Smith, House of Commons, Re: Bill C-293 The CVMA wrote to Mr. Erskine-Smith to bring his attention to two areas of concern highlighted in his private member's Bill C-293 ("An Act respecting pandemic prevention and preparedness") where the CVMA is particularly active: antimicrobial use (AMU) in animals and One Health. Visit the Business Management section of our website at www.canadianveterinarians.net/veterinary-resources/business-management/ for more information.

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Dr. Bell grew up on a family horse farm in Airdrie, Alberta. He has a BSc with high honours and a DVM with distinction from WCVM. He completed a one-year clinical internship at the Arizona Equine Medical and Surgical Center followed by a three-year surgical residency program, and completed an MSc in upper airway surgery. He is a board-certified Equine Surgeon and Diplomate of the American College of Veterinary Surgeons (DACVS), and an adjunct professor of equine surgery and sports medicine at WCVM. Dr. Bell has multiple commitments to the CVMA and the Manitoba Veterinary Medical Association (MVMA) and is a member of the CVMA Canadian Veterinary Reserve and the WCVM Educational Advisory Committee.

FROM THE CVMA PRESIDENT

FROM THE SBCV WCVM STUDENT LIAISON

SUMMER VETERINARY STUDENT POSITIONS: CONSIDERATIONS, CHALLENGES, AND POTENTIAL CHANGES By FIONA LAMB, BSc

uring the school year, veterinary students often connect with potential employers to secure summer positions where they can apply their newfound academic knowledge and clinical skills. Through virtual career fairs, online postings, or lunch talks with companies, the students can gauge which positions may align best with their career interests and other considerations such as their location, benefits and opportunities, and any costs that students may incur.

For example, many veterinary students place significant value on mentorship when considering summer positions. Previous experience of mentoring veterinary students, some degree of structure within the summer program, and an emphasis on hands-on learning were some key factors that positively influenced the perceived quality of the mentorship within a clinic. "I have signed up with a clinic that has



Emily Holmes (Nanaimo, class of 2024) with an abandoned kitten, working in the VMC (Veterinary Medical Centre) at WCVM in the summer of 2022.

"I WAS INFORMED IN LATE JANUARY THAT THE PRACTICE WAS OVERSTAFFED AND COULD NO LONGER HAVE ME FOR THE SUMMER."

had previous summer students work with them and an outline of the goals they want their students to meet. They also emphasized the importance of hands-on learning and providing opportunities," said Eden Rowe (Nanaimo, class of 2025). Some students factored guidance within an environment conducive to learning into their decision. "For this summer, I am interested in using my theoretical knowledge in clinical practice, so I am going back to my old clinic to work under a very trusted and trusting veterinarian who will push the limits of my skills in a safe environment," said Leila Weinerman (Victoria, class of 2025). Mentorship was a key point of interest for some veterinary students during the initial application process, but some students thought that the quality of mentorship was more likely to influence retention within a clinic for subsequent summers. Shannon White from Port Alberni (class of 2025) said that "clinic culture and mentorship are important to [her], but [she] feels that this is difficult to get an accurate read [on] before working there so it doesn't factor much into [her decision about] summer positions, except for being the reason if [she will] return the following year or not." This relationship between retention and mentorship for veterinary students extends to veterinarians in Western Canada in the early postgraduate period. For example, more than one-third of graduates decide to leave a practice solely because of inadequate mentorship, and 40 per cent return to practices where they had previously established a relationship (e.g., completed a summer student work experience). These figures show that mentoring veterinary students during the summer can be an effective way for practices to recruit and retain future veterinarians.

While veterinary students actively connect with potential employers during the school year, currently they are not guaranteed to secure a position. Most veterinary students at WCVM aim to secure summer positions in the fall and early winter. However, job postings can come up throughout the year, with some positions only being made available in spring. "The clinics I have applied to in Victoria [during the fall/winter] often don't know what their situation will be like in the spring and whether they'll be able to provide the space for a veterinary summer student," said Leila Weinerman (Victoria, class of 2025). This discrepancy between the advertising of summer positions and the time frame in which veterinary students hope to confirm employment restricts students' ability to plan and limits their opportunities to consider all the available positions collectively. The situation within clinics is also dynamic, with factors such as case load and staffing affecting practices' capacity to mentor students that they have already taken on. "I was informed in late January that the practice was overstaffed and could no longer have me for the summer," said Eden Rowe (Nanaimo, class of 2025). For veterinary students affected by changing circumstances within clinics, having to renew their search for a summer position in late winter/early spring is a difficult and often stressful process—particularly for students who need time to find accommodation near their place of employment. With most students continuing to pay rent in Saskatoon during the summer, paying for secondary accommodation is financially challenging. "Last summer, I worked for a mixed practice in Prince George that happened to have accommodation on site. Considering I was keeping my place in Saskatoon, the extra housing expenses were the deal breaker for me," said Viviana Lee (Vancouver, class of 2025). Given the challenges associated with applying for summer work experience and the

value that veterinary students place on mentorship, collectively advertising the availability and format of veterinary summer student positions on a central online platform may facilitate the process of connecting students with employers. For example, Shannon White suggested that it would be helpful to have "a list of all the clinics who often take summer students so that students are aware they are more experienced in the mentorship role" (Port Alberni, class of 2025). At WCVM, an annual virtual career fair on Zoom in mid-September and an online space for veterinary clinics to post summer employment positions are available (see Figure 1). In September 2022, 11 clinics from BC participated in WCVM's virtual career fair, where they had the opportunity to promote future externships, internships, and/or summer positions within breakout rooms. Further utilization of these resources for practices interested in connecting with veterinary students for the summer may facilitate the formation of long-lasting relationships. Ultimately, investing in such relationships with veterinary students through mentorship can lead to far-reaching effects after graduation in the recruitment and retention of future veterinarians entering the profession.

To save space, the references for this article are made available on the Chapter's website at www.canadianveterinarians.net/sbcv/west-coast-veterinarian-magazine.



Fiona Lamb, BSc, WCVM class of 2025, is from Coquitlam, BC. Before coming to WCVM, she earned her BSc in Biology at the University of British Columbia and completed her thesis, which focused on human-companion animal relationships. After graduation, she looks forward to exploring her interests in public health, small animal medicine, and poultry medicine.

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– from the SBCV

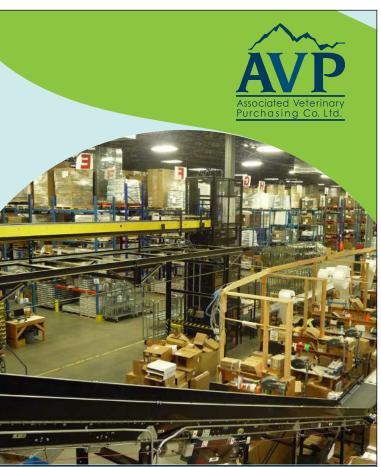
FIGURE 1: Resource for employers to connect with veterinary students at WCVM.

VIRTUAL CAREER FAIR (SEPTEMBER 2022 PAST EVENT INFORMATION)



https://wcvm.usask.ca/students/ dvm-program/career-fair.php

Point of contact for practice registration: Jackie Bahnmann (jackie.bahnmann@usask.ca)



A NIGHT IN EMERG

Many of us have either had our animals spend a night in emerg or sent our clients' animals to do so. Emergency practices, especially 24-hour practices, have many people playing many roles, some never seen. We offer this new column that will focus on a role that is vital to an emergency clinic, written by a different staff person at a different emergency clinic each issue.

MEDICAL DIRECTOR BY CATHARINE SHANKEL, BSc, DVM

mergency medicine is like a game of whack-a-mole where the moles are a never-ending advance of animals with novel and creative predicaments: parrots caught on clotheslines, goldfish choking on pebbles, reptiles falling from skyscrapers . . . You name it, we've seen it. As medical director of a busy emergency and specialty practice, I have a few extra "moles," some of which are what you would expect (budgets, complaints, training, recruitment, facilities) and some of which you might not expect. Some of the latter are fun (beta testing new technologies!) but others are not (calling the police). The result is controlled chaos, and I think I speak for most emergency staff when I say I wouldn't have it any other way.

Most people land in emergency medicine via one of a few routes. Twenty-odd years ago, it was common for veterinarians to enter this field with minimal training beyond veterinary school. In fact, some of the most talented emergency veterinarians I know started their careers this way. But the stakes are higher now, and there is a minimum skillset required to thrive. Most new ER veterinarians first complete a small animal rotating internship and/or a specialized internship in emergency and critical care. In response to critical shortages of ER veterinarians, alternative paths for ER mentorship have evolved. I've helped mentor new veterinarians through programs such as Blue Pearl emERge, the VCA Academy Emergency Mentorship Program, and the Improve International Accelerated Emergency Program. Although these programs are best suited to veterinarians with clinical practice experience, the right new graduate can be very successful with support from an experienced team.

There is no archetypal ER veterinarian (or technician, for that matter), but flexibility, laser focus, resilience, stamina, and a sense of humour are necessary traits. Emergency medicine is a team effort, and it takes all types. Every team needs a rule follower to keep everyone in line and a rule breaker because sometimes you need to save a kitten with limited funds. Every team needs an optimist, because "AS OUR HOSPITAL HAS GROWN OVER THE YEARS, SO TOO HAS THE SCOPE OF STICKY SITUATIONS. SOME CASES DEMAND AN EXTRAORDINARY EMOTIONAL AND FINANCIAL COMMITMENT BY PET OWNERS, AND THE STAKES CAN BE VERY HIGH."

pets don't abide by statistics, and a realist, because we do live on Earth . . . Every team needs a risk taker who will push the limits, and a quiet cautious type who is approachable and empathetic and can smooth over any situation. A wisecracker to break the tension, and a generally wise person who sees the forest through the trees.

Working in the emergency department of a busy urban practice is not for the faint of heart. Situations can be time-sensitive, emotions run high, prognosis is sometimes poor, trust is difficult to build in minutes, and there can be a significant financial burden to clients. We often wish we had a security team and could call a Code White like our human counterparts. We do have panic buttons and have relied on our security footage more times than I'd like to admit. When a practice is open 24 hours a day, there isn't always a manager who can handle difficult situations when they arise, and therefore our team needs to be excellent at managing crises, diffusing threatening situations, and connecting distraught clients to emergency resources.

Imagine onboarding a new hire and in addition to telling them, "Here is where you store your lunch," you also show them the locations of panic buttons, how to retrieve security footage, code words for a hostile situation, the most private bathroom if you need a good cry, and how to navigate (and welcome) homeless people who are looking for a warm place to sit and a cup of coffee in the middle of the night. It's not uncommon to have clients mention self-harm and suicide after a traumatic loss of a beloved pet, and therefore onboarding in the ER means learning about VPD Car 87 and how to request them in the event of a mental health crisis.

The nature of emergencies means that clients often arrive in pajamas, without shoes, or even in bathing suits. Often, a pet sitter knows nothing of the pet's history and struggles to make major emotional or financial decisions on an owner's behalf. We are well versed in navigating clients who are intoxicated, but it can certainly present a challenge for informed consent. Sometimes there are graceful ways to ask a client if they have a friend or family member who could come and support them. Other times all you can do is be patient while an inebriated client repeatedly steps on and off the dog scale in reception in an endless cycle of delight.

I think that when most people consider a career in emergency medicine, they plan for all the medical skills they'll need to succeed—for example, pericardiocentesis, aFAST/tFAST, and CPR. But the truth is that a lot of wild things happen that have nothing to do with veterinary medicine. And these wild things happen right alongside all the normal things, so it can be a challenge to move from one room, where a client is in crisis, to the next room, where a perfect puppy has had a minor encounter with THC and will be just fine. All veterinarians must navigate these contrasting scenarios, but the contrast is exponentially increased in the emergency department.

Our emergency department provides care for a wide spectrum of cases, ranging from barely urgent to life-threatening and everything in between, and a wide variety of species. My favourite non-urgent case of all time was a Bichon Frisé who was

EMERGENCY

a direct transfer from another hospital after being impaled through their chest by a coat hanger. The client arrived in a state of panic, but the dog seemed a little too happy on arrival, and in fact, their haircoat was so dense the coat hanger was just suspended deeply in their coat. Crisis averted! At the other end of the spectrum, my colleague was pulled away from rounds for a recently (within minutes) deceased canine patient who had just been stretchered in. CPR was initiated, and with almost no history to go on, she immediately diagnosed pericardial effusion, performed a pericardiocentesis (during CPR), saved the dog's life (at least temporarily), and returned to rounds as another doctor took over the dog's care. These are the moments ER teams live for, when intuition and the tiniest of moments make the difference between life and death.

Morning rounds are an opportunity for all emergency and specialty teams to plan the best care for each patient. That can involve consulting with one of our specialists, discharging the patient to home, or transferring care back to a patient's primary care veterinarian or even another specialty hospital. We have an incoming roster of patients arriving 24 hours a day. They are triaged by RVTs and placed in a queue if stable, and may receive emergency triage treatments (e.g., analgesia) or emergency point-of-care tests while they await consultation. Critical and time-sensitive cases are assessed immediately. Over the course of several hours I may see a patient for euthanasia, admit and treat a feline urethral obstruction, stabilize a dog in heart failure, oversee a workup for a vomiting cat, or coordinate a CT for a hemoabdomen. There is almost always an induction of emesis in the mix (especially if I am on shift). My favourite emesis treasures have included an intact rope toy, a block of rodenticide, an entire Easter basket's content of chocolate and wrappers, a deceased rodent, unidentified underwear, and a pepperoni pizza that came up in one piece and unfurled in slow motion on the floor. This particular pizza was almost as long as the Jack Russel Terrier who ate it, and I marvelled at the thought of this little dog swallowing it, as it would have been simultaneously outside his body and in his stomach. He must have been so committed to swallowing it.

When I'm not on shift in the emergency department, administrative responsibilities call. In a busy emergency and referral practice, this role is a double-edge sword. My admin role feels in part like play rather than work, brainstorming solutions or testing new software or technologies, and partnering with other organizations. We are a large team and can find faults and bugs in any new triage software, digital cytology platform, or app, and it's fun and challenging to partner with companies working to advance our field. But the most challenging aspects of this role are exactly what you would expect: It is never easy to navigate complaints and regulatory matters with the CVBC (or courts), handle difficult situations where there is a breakdown in the VCPR (sometimes resulting in destructive social media situations), or support team members and pet owners through poor medical outcomes.

As our hospital has grown over the years, so too has the scope of sticky situations. Some cases demand an extraordinary emotional and financial commitment by pet owners, and the stakes can be very high. I will admit that sitting down with clients (or even referring veterinarians) in situations where there is a poor outcome is difficult and weighs heavily. The scope of what we can provide for companion animals has grown, but so too has the cost of care. While we can provide treatment options for pets that once seemed impossible, this brings all sorts of ethical dilemmas. Our industry is now starting to tackle concepts such as futile medical care, where clients pursue treatment even when there is no reasonable hope that it will benefit the pet. Managing conflict is a necessary but stressful part of my role. I will admit to questioning my capabilities often, but in those moments when an understanding and resolution are reached, the work feels worth it.

Although many people move on from this adrenalin-infused environment to a more controlled existence, there are perks to a career in emergency medicine. Late nights suit many of us, as does having the slopes and trails (or even our homes) to ourselves midweek. We enjoy the surprise of what each shift brings, and the opportunity to work with a different cast of characters each shift. There is a decent dose of instant gratification in emergency work, as well as joy in encountering the weird and wonderful predicaments that pets find themselves in and helping them. A deep bond develops between teammates who spend holidays together and have the shared experiences of what the night shift brings. When the busy bright lights and sounds of the day give way to the quieter dark, there are rare lulls when the food dehydrator comes out, skits get planned, and coffee gets ordered from the one 24-hour café in our area (thank you, Breka). These quieter moments give us the opportunity to spend time with our patients, reminding us why we chose this profession in the first place. WCV

SBCV'S ANIMAL WELFARE COMMITTEE

BY KATELYN BEHM, DVM AND CATHY SCHUPPLI, DVM

id you know that the SBCV has an active and thriving Animal Welfare Committee? The SBCV Animal Welfare Committee (SBCV AWC) promotes animal welfare from a veterinary perspective at the provincial level and acts as a consultant to both the SBCV Board and other organizations on pertinent issues. It also initiates its own projects, identifies areas of interest, and offers significant input on all CVMA national position statements when requested. In the past year or so, for example, the committee has provided input on position statements on veterinary dentistry, dog importation, devocalization, climate change, the use of strychnine as a wolf predacide, and small ruminant horn management.

YOU HAVE A SUGGESTION A RELEVANT ANIMAL FARE ISSUE THE COMMITTEE SHOULD BE TACKLING?"

While the SBCV AWC is specific to British Columbia, the CVMA Animal Welfare Committee is mandated to promote animal welfare at a national level and contributes to CVMA responses to potential issues that may arise both nationally and internationally. The SBCV has a representative on the CVMA AWC to advocate for and provide context from the British Columbia perspective.

CVMA COMMITTEE WEEKEND, MARCH 23–27, 2023

Sheraton Ottawa Hotel, Ottawa, Ontario

The CVMA held its annual committee weekend, when various committees come together to meet face-to-face, in March 2023. Dr. Cathy Schuppli attended as an ex officio member of the CVMA Animal Welfare Committee (AWC) representing the SBCV (she is also an SBCV AWC member). Members of the CVMA AWC regularly update and develop new position statements related to important national animal welfare issues.

Animal Welfare Position statements currently at various stages of completion:

- The Responsibility of Veterinary Professionals in Addressing Animal Abuse and Neglect
- Responsible Breeding of Companion Animals
- Animal Welfare at Auction Markets
- Transport of Dogs and Cats
- Transport of Farm Animals
- Animal Sentience

Existing position statements that are under revision:

- Neonatal Dairy Calves
- The Welfare of Cull Dairy Cows
- Housing Systems for Laying Hens
- The Capture of Wild Animals for the Pet Trade

In addition, members of the CVMA AWC have been working on updating the cattery code.

Members of the CVMA AWC represent various areas of the veterinary profession, and the committee weekend was an opportunity for updating the committee on numerous topics including:

- CALAM
- CFIA
- Humane Canada
- AVMA
- SBCV
- OVMA
- CCAC
- Biodome
- CAZA and Zoos
- Apiculture
- Behaviour research
- PMU, PMSG, NFACC

In addition, there was an update from the AVMA Humane Endings meeting, January 27–29, 2023, where emergency euthanasia or depopulation of livestock and poultry was discussed.

The SBCV Animal Welfare Committee has a representative participating on its behalf, and on behalf of the SBCV as a whole, in the CVBC's stakeholder group discussions to review canine devocalization. Additionally, an SBCV AWC representative attended the first meeting for the BC Ministry of Agriculture and Food's Farmed Animal Welfare Framework Project, whose purpose is to assess the current framework to 1) ensure welfare is sound, 2) best support farmers, ranchers, and veterinarians, 3) increase public confidence, and 4) ensure high standards of welfare are maintained for resiliency in the face of challenges such as climate change, value chain interruptions, and more.

The SBCV Animal Welfare Committee has been active in opposing the use of brachycephalic breeds in marketing campaigns and advertising and was also instrumental in asking the West Coast Veterinarian magazine to run a series of stories on educating members about the issues associated with the extreme conformation of these animals.

Are you interested in getting involved with the SBCV Animal Welfare Committee, or do you have a suggestion for a relevant animal welfare issue the committee should be tackling? Please email wcveditor@gmail.com and keep an eye on this corner of West Coast Veterinarian.



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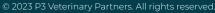


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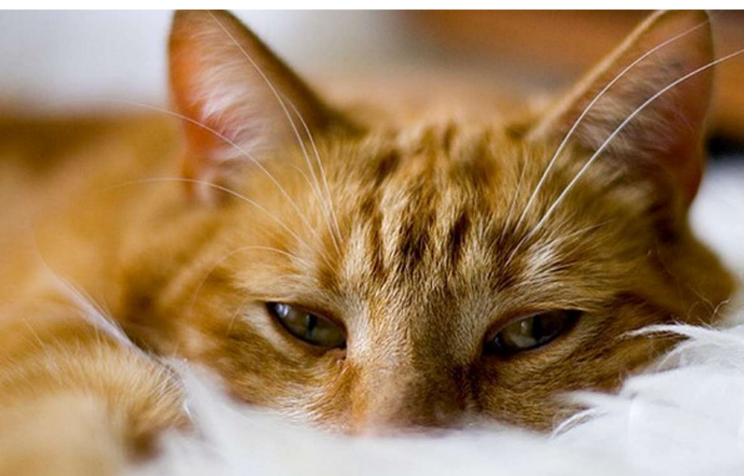


A YEAR IN THE LIFE

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 feline health.

TRENDS, NUTRITION, AND HYDRATION ESPECIALLY IMPORTANT IN THE SENIOR CAT?

BY MARGIE SCHERK, DVM, DABVP (Feline)



Cat in pain

"WEIGHT LOSS AND MUSCLE WASTING ARE RISK FACTORS FOR INCREASED MORBIDITY **AND MORTALITY.**"

side from kittens during their first year, senior cats have the greatest need for frequent veterinary visits. They have many chronic medical problems: dental diseases, constipation, moderate to severe arthritis, chronic kidney disease, calcium oxalate uroliths, upper and lower urinary tract infection, hyperthyroidism, diabetes, hypertension, neoplasia, and cognitive dysfunction. Seniors are cats 11 years and older (equivalent to 60 years for humans, if the first two years of a cat's life = 24 human years and every year thereafter = 4 human years).

PREVENTIVE MEDICAL NEEDS

At any age, patients should be assessed for any evidence of pain. In this species, especially in this age group, we look for how they are hiding pain.

In the article on mature cats, Table 1 presents a Mobility and Cognitive Dysfunction questionnaire (West Coast Veterinarian, spring 2023, available at www.canadianveterinarians. net/sbcv/west-coast-veterinarian-magazine). The 2022 AAHA Pain Management Guidelines are an excellent resource. See www.aaha. org/aaha-guidelines/2022-aaha-painmanagement-guidelines-for-dogs-and-cats/ home.

Parasite control should be continued throughout the cat's life based on the cat's risk. Internal parasites reduce the nutrients available to the cat and external parasites cause inflammation and blood loss.

Studies on the response of senior or geriatric cats to vaccination are lacking. It is suspected that immunosenescence occurs as is seen in other species. Indeed, alterations in certain aspects of the adaptive immune system (immune response) associated with aging in this species have been noted, but it remains unknown whether there are changes in the innate response or the ability to mount a primary response to a novel antigen. Most vaccines are considered to induce a less robust response in elderly (> 60 years) people. Because they produce antibody titres that are both lower and of a shorter duration than in younger humans, it is recommended that elderly individuals receive boosters more frequently in order to provide adequate protection.

It has therefore been recommended that healthy senior cats continue to be vaccinated against those antigens to which they are at risk of exposure as if they were younger; it is not recommended to increase the frequency of boosting at this time. Additionally, new antigens should not be introduced unless absolutely necessary, and if so, a second dose should be administered three to four weeks later.

In older cats who are immunocompromised by, for example, illness, immunosuppressive therapies, or retrovirus infection, the cause and duration of their health status should be taken into consideration. If they have acute disease or are on immunosuppressive therapies in the short term, vaccination might be postponed until the disease or therapy is over. If possible, as in the case of starting immunosuppressive treatment, vaccination would ideally occur two to three weeks before initiation of treatment. When a condition is chronic, cats should be vaccinated based on the specific condition. (See Table 1 in Hartmann et al. at www.mdpi. com/1999-4915/14/5/923.)



Underweight cat.

SENIOR SCREENING

By regularly following trends in biochemical parameters, such as creatinine, phosphorus, urine specific gravity, or urine protein creatinine ratios, pending problems or progression of pre-existing problems can be detected. For example, if serum creatinine values double, even while remaining within normal reference interval, a decrease of glomerular filtration rate by 50 per cent is implied, with no additional testing required. Rather than focusing on point-in-time values, this detects subtle changes before clinical illness becomes apparent, allowing for intervention to prevent or slow the progression of problems. Screening programs, such as one for mature cats, allow this data to be collected. A mature cat screening program can consist of a comprehensive physical examination and consultation, a urinalysis, blood pressure determination, and a blood panel consisting of a CBC with differential, biochemical screen including a basal serum T4, amylase, lipase, and electrolytes. Once problems have been detected, or once the cat is over 11 years of age, screening should be twice a year. As with the mature adult, including plain films annually will help detect calcium oxalate ureteroliths.

BODY COMPOSITION. NUTRITION. AND HYDRATION

Like older humans, cats are prone to muscle loss (sarcopenia), but unlike humans and dogs, they are also predisposed to unhealthy overall weight loss. Cats actually have an increased metabolic energy requirement (MER) after 11 years. Weight loss and muscle wasting are risk factors for increased morbidity and mortality.

Serial evaluation over time is invaluable because it helps detect trends such as weight loss and progressive changes in muscle mass. Studies have shown that weight loss can begin as much as three years before we can diagnose chronic kidney disease (CKD). With other causes, the weight loss may begin up to four years before death.

Addressing weight and muscle loss can impact the development of disease and reduce both its severity and mortality. The loss of lean body mass (LBM) has profound effects on survival as well as immune function, wound healing, and strength in people. In companion animals, studies have identified reduced survival as being associated with a thin/low body condition score (BCS). Weight loss, anorexia, weakness, and a perceived poor quality of life are reasons for clients to seek euthanasia. Being slightly overweight improves outcomes for people with heart disease and cancer. In one study of cats with large cell lymphoma, those who lost > 5 per cent body weight during treatment had a significantly shorter survival time than those who were able to maintain their weight. Other cancer patients

with a slightly increased or ideal BCS survived up to six times longer than underweight cats. Cats with CKD who had higher BCS lived longer than those with lower BCS. Similarly, cats with heart failure had best outcomes if they were normal (or slightly increased) weight before treatment rather than being underweight or obese.

NUTRITION

Studies of geriatric cats have shown a reduced digestive ability in these animals, and this may contribute to their increased MER. Perez (2004) showed a reduced ability to digest protein in 20 per cent of geriatric cats, with about 33 per cent having a significant reduction in their ability to digest dietary fat. Another study revealed similar results, reporting an 8 per cent average reduction in energy digestion and 6 per cent in protein digestion. Micronutrient absorption—potassium, phosphorus, sodium, choline, B vitamins, and vitamin E—is also reduced in healthy cats as they age.

This is clinically relevant when designing the optimal nutritional regime for our older feline patients: restriction of protein and fat may be contraindicated. Especially if underweight, older cats will benefit from a more energydense, highly digestible diet to help offset age-related digestive and metabolic changes. Thus, it appears that some loss of weight and LBM (sarcopenia) is part of normal aging and not caused by illness, and that we may be able to address it nutritionally to some degree, potentially improving longevity as well as quality of life.

In general, senior cats need 70 kcal/kg ideal weight/day (versus adult cats, who need 40–60 kcal/kg ideal weight/ day). The caloric requirements should be calculated in order to determine the amount of food (and treats) required and this amount communicated clearly to the person/people feeding the cat. While canned food may be preferable for providing more moisture, some cats are reluctant to eat it. If a change is desired, it must be made gradually, over four to six weeks, with the client monitoring that the cat is eating enough food. Dry food should always be available in multiple quiet locations that are readily accessed by the cat. If a cat prefers to eat only a small quantity, canned food alone may not be appropriate, as it is much less calorically dense than dry food.

A high-energy, highly digestible diet with an increased protein content may be indicated because of potentially reduced digestive ability. Older cats require 5–6 g of protein/kg, and insufficient dietary intake results in muscle catabolism. (Another way to look at this is that diets should contain approximately 10-13 g protein/100 kcal metabolizable energy to provide enough protein.) If cats are eating only small amounts of food, a higher percentage of calories from protein may be needed to meet their needs.

In cats with medical conditions, appropriate diets should be selected, always bearing in mind the caloric and protein requirements that are needed by this species, ill or not. With concerns about the impact of protein in

"DEHYDRATION IS COMMONLY A RESULT OF MEDICAL CONDITIONS, INCLUDING DM, CKD, HYPERTHYROIDISM, OR PROBLEMS SUCH AS VOMITING OR DIARRHEA."

CKD, reductions in phosphorus may be achieved using intestinal phosphate binders while concurrently increasing lower-phosphorus protein (e.g., cooked chicken breast) if feeding adequate amounts of a renal diet don't improve the MCS. Cats with CKD are old and live a long time. Meet the needs of the old cat.

Nutritional support may be indicated in cats with two or more risk factors as indicated in Table 1.

HYDRATION

Hydration plays a special role in older cats. Dehydration is commonly a result of medical conditions, including diabetes mellitus, CKD, hyperthyroidism, or problems such as vomiting or diarrhea. It is unknown whether chronic, low-grade dehydration might contribute to the development of lower urinary tract problems or CKD. One large study revealed that being dehydrated (even if in good body condition) increased the odds of developing CKD. Clinically, dehydration results in decreased or altered social interactions, inappetence or anorexia, lethargy, constipation, confusion, and discomfort/pain, all of which are reasons concerned clients present their cats to veterinarians. A hangover is a result of dehydration with acidosis, oxidative stress, and inflammation. Our older cats frequently present with all of these components. Might they be experiencing a hangover day after day, week after week?

Healthy cats need between 50 and 60 ml of water/kg body weight/day. A 4-5 kg/9-11 lb cat will get their 200-300 ml of water from drinking and from what they eat. Given that the native diet of cats comprises about 70 per cent water, the majority of their water requirements are met through their water-rich food. The energy intake of free-roaming feral cats comes from a high-protein (52 per cent), high-fat (46 per cent), low-carbohydrate (2 per cent) diet.

Most canned foods contain 75–80 per cent water. Dry food contains < 10 per cent water. Additionally, a small amount of water is gleaned from metabolizing food: 10–13 g (2–2½ tsp) of water/100 kcal of food. While cats fed canned food might not drink as much, their total daily water intake is greater than that of cats eating dry food. Similar to hunting, where cats eat 8-10 small prey/day, the more often cats eat, the more water they drink. This supports the benefits of puzzle feeding. Additionally, the amount of urine produced by cats eating moist food is greater and more dilute than that of cats eating dry food.

When cats are unable to stay hydrated, as based on observing multiple moist, formed stools a day, the cleanliness, size, and location of the water bowls (and litter boxes!) should be determined. More bowls with clean water should be offered.

Parameter

Food intake <80% RER for <3 days

Food intake <80% RER for 3–5 days

Food intake <80% RER for >5 days

Presence of weight loss

Severe vomiting/diarrhoea

Body condition score <4/9

Muscle condition score: moderate to severe muscle loss

Muscle condition score: mild muscle loss

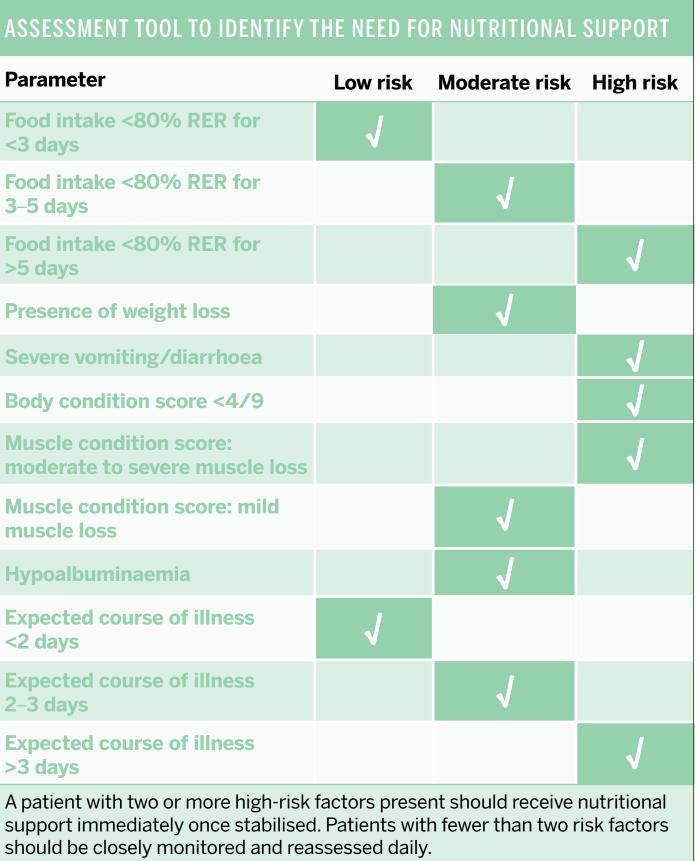
Hypoalbuminaemia

Expected course of illness <2 days

Expected course of illness 2–3 days

Expected course of illness >3 days

should be closely monitored and reassessed daily. RER = resting energy requirements



Maintenance (60ml/kg/day) + % dehydration	MI/kg/day
Maintenance + 1%	70
Maintenance + 2%	80
Maintenance + 3%	90
Maintenance + 4%	100
Maintenance + 5%	110
Maintenance + 6%	120
Maintenance + 7%	130
Maintenance + 8%	140
Maintenance + 9%	150
Maintenance + 10%	160



TABLE 2: Example of subcutaneous fluid calculation for a dehydrated cat.

Equipment required to warm SQ fluids.

Ideal healthy hydrated weight: 4 kg

Ill, dehydrated, inappetent weight: 3.2 kg.

Estimated 8 per cent deficit (firm feces, delay in skin tent, slightly dry oral mucous membranes, normal eye position). 4 kg × 140 (i.e., maintenance + 8%) = 560 ml over first 24 hours. Once rehydrated, maintenance is 60 ml/kg/day = 240 ml. (Adapted from DiBartola 4th edn., Fluid, electrolyte acid-base disorders, p. 347.)

Nutrient-enriched water can be offered in a separate bowl and daily subcutaneous (SQ) fluids should be considered. Just as clients are able to give insulin twice a day, they can also give once daily SQ fluids. By giving treats throughout fluid administration and warming fluids to near body temperature (38°C), cats readily tolerate 60 ml/kg/day. (See www.canadianveterinarians.net/sbcv/westcoast-veterinarian-magazine). Table 2 presents a simple way to calculate volumes needed for initial rehydration and subsequent maintenance. Use the previous hydrated weight for calculations to determine the amount of fluid needed.

Should a cat's stools remain hard, despite daily fluids, one can consider increasing the fluid dose. Conversely, if fluids remain unabsorbed in the axillary area or paws, the dose (but not the frequency) should be reduced. Importantly, if a patient is hypertensive, and has concurrent occult heart disease, is significantly anemic, or is on corticosteroids, it is possible to precipitate heart failure. Assessing blood pressure is therefore highly recommended.

SUMMARY

The average life expectancy of cats is mid- to late teens. Many cats live into their 20s, with a very few reaching their 30s. Through following trends in physical and biochemical parameters, by reducing stress, and by optimizing nutrition and hydration, we can help more cats live well for longer.

RECOMMENDED READING:

Bagley, Benjamin. "Loving Someone in Particular." Ethics 125, no. 2 (January 2015): 477-507

Elderly Cats — Special Considerations: www.icatcare.org/advice/elderly-cats-special-considerations/

2021 AAFP Senior Care Guidelines: www.catvets.com/guidelines/practice-guidelines/senior-care-guidelines

Cat Friendly Homes (especially helpful for end-of-life pain and care): www.catfriendly.com/life-stages/senior-care/ and www. catfriendly.com/keep-your-cat-healthy/know-cat-pain/

"How Do I Know if My Cat Is in Pain?": www.catfriendly.com/wp-content/uploads/2017/06/PainManagement-WebView1.pdf

"Senior Cats Have Special Needs": www.catvets.com/public/PDFs/ClientBrochures/AAFPSeniorCareBrochureWeb.pdf

For helpful tips and a short video on giving sub-q fluids, please see https://www.canadianveterinarians.net/media/fvrfmgum/ scherk-how-to-give-sq-fluids-video-part-1.mp4 (for part 1) and https://www.canadianveterinarians.net/media/sq2n1bei/scherk-howto-give-sq-fluids-video-part-2.mp4 (for part 2).

To save space, the references for this article are made available on the Chapter's website at www.canadianveterinarians.net/sbcv/west-coastveterinarian-magazine. WCV

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GETTING TO GOOD: HOW TO ADDRESS BEHAVIOURAL ISSUES IN OUR COVID PUPPIES AND KITTENS

BY KOHARIK ARMAN, DVM

lot of people became interested in spending some of their pandemic time at home nurturing a little dog or cat, often because they felt lonely or bored. In looking back at that time, certain risk factors were identified as increasing the odds that these dogs, in particular, were vulnerable to developing behavioural issues, apart from the usual determinants of temperament such as breed and individual breed line genetics.

Surveys have revealed that the majority of people who adopted puppies during the pandemic had never previously considered adopting or purchasing a puppy, and their decision to do so was influenced by the fact that they would have more time at home to provide the care that puppies require. These pet owners were also more likely to be first-time dog owners, to have children in their households, and to have purchased or adopted puppies sight unseen from breeders who did not perform health-screening tests. Additionally, pandemic puppies were often sold or adopted at younger ages than pre-pandemic puppies. In the instances where owners did meet the dogs prior to purchase, this was typically done offsite from breeders' properties and not in the presence of littermates, which might have allowed an owner the chance to observe their prospective puppy's early social skills.

Veterinarians are now dealing with the reality of pandemic puppies, and to some extent kittens, as COVID-19 restrictions wind I recently had the exciting opportunity to attend a behavioural lecture series by Kat Pankratz, DVM, DACVB, organized by the SBCV.

down and routines begin to return to normal, more or less. Frustrated owners are asking for guidance and treatment plans. Dr. Pankratz presented information from multiple studies confirming what we had all instinctively anticipated could occur due to the social isolation and changes caused by the COVID-19 crisis. The pandemic caused a significant spike in problem behaviours in existing pet dogs due to pandemic-related changes to their everyday lives, and also in puppies who missed socialization activities during sensitive developmental periods of their growth. Pet owners and veterinarians are now finding themselves struggling to deal with these issues effectively. This is a significant dilemma because behavioural issues in pet dogs and cats comprise some of the most common reasons for pet relinquishment to shelters, and undesirable or unacceptable behaviour is also a reason for which they may present for euthanasia at veterinary clinics.

In addition to pandemic puppies, a majority of existing pet dogs experienced significant changes in their routines and had decreased frequencies and durations of walks but were left alone far less than prior to lockdown. The majority of these dogs demonstrated significant escalations in existing undesirable behaviours such as barking and whining, and about one-quarter developed new problem behaviours as well. When lockdown restrictions eased, many dogs who went through their socialization phase during COVID-19, and even those who did not, displayed increased symptoms of fear, anxiety, and aggression once their owners began leaving the home again.

"THE MAJORITY OF THESE DOGS DEMONSTRATED SIGNIFICANT ESCALATIONS IN EXISTING UNDESIRABLE BEHAVIOURS SUCH AS BARKING AND WHINING, AND ABOUT ONE-QUARTER DEVELOPED NEW **PROBLEM BEHAVIOURS AS WELL."**

While cats did not fare as badly during the pandemic as dogs did, they also experienced some disruption to their routines. When I discussed the topic of COVID cats with Dr. Pankratz, she noted that in one survey of cat owners completed after the first few months of COVID, published by Kogan et al. in a 2021 issue of *Animals*, cat owners largely felt that their cats benefited from their owners' increased presence at home, and more notably, owners were no more bothered by any unwelcome cat behaviours than they were prior to the pandemic. That said, there is a lack of data about feline behavioural issues that may have manifested during the pandemic, so further research is needed.

From an anecdotal standpoint, as a feline-specific practitioner through the pandemic years, I can certainly attest to the fact that I saw some patients who were distressed by their owners' increased presence in the home. The great majority of my patients, however, appeared to enjoy every minute of increased lap-time with their owners, and this is supported by studies on cat ownership during the pandemic (see, for example, an article by Jezierski et al., at www.europepmc.org/article/MED/34669699). But of course, with cats being the creatures of habit they are, it was also inevitable that the odd cat or two would be perturbed by increased human activity in "their" households. I did notice a higher proportion of cat owners reporting that their pandemic cats were fearful of visitors to their homes once restrictions eased, but again, there are no statistics showing what effect the lack of socialization in kittens has had on our feline pet populations.

Anecdotes about cats aside, however, the main focus of Dr. Pankratz's session was on canine behavioural issues that resulted from COVID-19 disease response measures—not just how to treat these problems but also what we as veterinarians can do to prevent them. Dr. Pankratz stressed that even prior to COVID-19, up to 47 per cent of dogs relinquished to shelters were given up because of behavioural problems, so one of the most important aspects of our job as it relates to new pet owners is to ensure that we take a proactive approach to the prevention of behavioural challenges before they become problematic and have a chance to erode the human-animal bond.

While there may be some variability depending on breed and individual genetics, the canine socialization stage takes place mostly between 3 and 16 weeks of age. For some



puppies, this window closes at just 12 weeks of age. The crux of the issue is that there is a short period during which pet owners have the opportunity to make a positive impact. While a lack of socialization and/or any negative emotional states connected to aversive stimuli may not manifest as behavioural problems until somewhere between six months and two years of age, Dr. Pankratz emphasized that this brief period is when these puppies will be shaped as dogs in terms of who they are and how they interact with the world.

Dr. Pankratz also highlighted that it's equally important to educate owners not just about when they should be putting in the work, but also about how to effectively socialize their puppies in order to create positive associations with future situations they may encounter. Successful socialization isn't about exposing puppies to scary stimuli by flooding them in uncontrolled environments; it's about purposefully cultivating positive emotional responses to the situations they may experience later in life. In one example, Dr. Pankratz said that rather than putting a puppy straight into a bathtub and hoping they enjoy it, veterinarians should encourage owners to start by placing the puppy in a very shallow amount of water with some wet food on the side of the tub to lick at the same time as they experience standing in the water. Owners should then gradually work up to the full bath experience, ensuring that their puppy is relaxed and comfortable and developing positive associations with high-value treats every step of the way. Veterinarians should encourage owners to take this approach to introducing their puppy to all smells, peoples, procedures, environments, clothing types, etc., that they may encounter in the future. We must help owners to understand that taking the extra time in the early weeks can reward them tenfold in the future when they have a well-adjusted dog with the skills to handle everything in stride.

Another key point that Dr. Pankratz made about socialization is that owners should know that the approach doesn't always need to be interactive. Sometimes it's best for the puppy or dog to start with passive observation rather than being an active participant in the situation. For example, an owner could expose a puppy to the sounds of a child from a distance, which prohibits the child from making physical contact with the dog.

- Dr. Pankratz's three most important rules for puppy socialization are:
- 1. Outings should occur at the puppy's pace.
- 2. The quality of the experience is more important than the quantity.
- 3. Owners need to guard their puppy's experiences by closely monitoring their body language. It's extremely important that owners learn how to recognize early signs of fear so they can intervene quickly when necessary.

In addition, Dr. Pankratz believes that the benefits of puppy socialization far outweigh the safety advantages of waiting for puppies to be fully immunized before permitting them to interact with other dogs and letting their paws hit the ground. Studies have shown that puppy socialization classes increase dog retention in the home from 33 per cent to 90 per cent. The incidence of parvovirus is no greater in puppies who attend puppy classes than those who do not. Dr. Pankratz is a strong supporter of kitten socialization classes as well. She advises that puppy and kitten classes can start as early as 7 weeks of age, as long as the first veterinary exam, vaccinations, and deworming have been done 10 days prior, and the puppies and kittens are clinically healthy. And of course, kittens should be feline leukemia-negative and FIV-negative.

While prevention of behavioural issues is key, many pandemic pets now need treatment for problems already manifesting. Top of the list is separation anxiety. Dr. Pankratz likes to approach behavioural cases using the five Ms:

- Medical: Rule out other differentials.
- Motivation: What is the emotional state of the pet?
- Management: Safety first, and avoid repeats of the behaviour.
- Modification: Change the emotional state.
- Medication: Decrease the motivation.

When determining what a dog's motivation is, Dr. Pankratz stresses the importance of asking owners about the physical behaviours their dog displays, because owner interpretations are frequently inaccurate. She also flags that pets whose owners believe they act out of spite may have a less favourable prognosis with regard to repairing the bond with their pet. One of the first steps she recommends for many cases is that owners should keep behavioural

diaries that describe the ABCs: the antecedent to the behaviour, the behaviour of concern itself, and then the consequence—that is, what did the owner do in response to the behaviour, and what, if anything, did it end up teaching the dog? She also suggests that owners make videos of their dogs' behaviour as much as possible.

Once a behavioural diagnosis has been made, the treatment plan consists of the last three Ms.

Here is how Dr. Pankratz's plan looks for the treatment of separation anxiety, for example.

Management means ensuring that a pet's behavioural needs are being addressed, since busy and fulfilled pets are much less likely to engage in inappropriate behaviours. For cats, Dr. Pankratz favours enabling them to forage for their food, and frequently directs clients to the website www.foodpuzzlesforcats.com. For dogs, she recommends that owners complete a course called Nature-Driven Nurture Foundations, offered online by Instinct Dog Behavior and Training at https://onlineschool. instinctdogtraining.com/course/nature-driven-nurture.

Another important aspect of management is reducing the number of repeated negative experiences a pet undergoes. This can help prevent sensitization, which can further escalate the undesirable behaviour. If a dog has canine separation anxiety, for example, ideally they will never be left alone during the treatment period. Understandably, this may not always be achievable for all owners, but if they can bring their dog with them on outings as much as possible (to the office or to visit friends, for example), it can go a long way to reducing sensitization and preventing setbacks during training. When the dog must be left alone, owners should try to minimize the triggers that their dog is exposed to when they leave. They should ensure that all the items they require for an outing are in one place and ready to go so their dog's anxiety isn't increased as the owners wander round collecting each item (keys, wallet, purse, shoes, etc.) separately. They should also try to plan errands so that they can all be completed in a single outing, rather than have repeated entries and exits of the home throughout the day. When owners say goodbye and greet their dog upon their return, it should be unexciting and casual. Owners should not respond to their dog's exaggerated greeting when they return home. Instruct them to turn away and only pay attention once their dog is in a calmer and more relaxed state. Owners should never yell at or punish their dog, because punishment will only increase fear and anxiety, and may also inadvertently provide a social reward for the dog, unintentionally reinforcing the behaviour.

Other management techniques include using physical, audio, visual, and distance barriers. For example, many dogs with separation anxiety also experience noise sensitivity and are hyper-vigilant. White noise can help buffer external stimuli. It may also be useful to limit the dog's window visibility to prevent visual cues from triggering spikes in anxiety.

While the owner is implementing management techniques, they also begin the **modification** aspect of treating separation anxiety. This entails changing the emotional state of the dog with graduated desensitization and counterconditioning measures so that the dog becomes more comfortable with being alone.



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Owners should reward their dog for spontaneous calm behaviour such as sitting or lying down, and slowly build up distance and time away from them. They can begin by teaching their dog to remain in a room while the owner leaves it and then immediately re-enters and rewards the dog for staying calm. The time outside of the room should be slowly increased to minutes and hours. Once hours can be spent away from the room, owners can begin working on real departures. Initially that may mean simply picking up their keys and putting them back down, then putting on outdoor apparel and removing it after a couple of minutes. Next, a couple of seconds out the door, and then returning right away.

All the while, this training should be paired with the provision of high-value treats and chews to help create positive associations with being left alone. Tell owners to remove these treats after their return so that the items maintain their high value and are only associated with being left alone. Dr. Pankratz notes that while many dogs may be too distressed initially to engage with their treats, future interaction with the treats also serves as a useful measure of success with achieving calmer emotional states as training progresses. She also advises that only a small subset of dogs will create a negative association with the high-value treats they are offered, and that the vast majority do better with having the treats available to them.



"ALL THE WHILE, THIS TRAINING SHOULD BF PAIRFD WITH THE PROVISION OF **HIGH-VALUE TREATS AND CHEWS TO HELP CREATE POSITIVE ASSOCIATIONS WITH BEING LEFT ALONE.**"

The final aspect of treatment is medication, to be used in conjunction with management and modification. The goal of anti-anxiety medication is to reduce the intensity of the emotional response, allowing patients to think instead of panicking. Dr. Pankratz provided some useful treatment tips to help guide psychotropic medication use in pets:

- Always treat the patient rather than the diagnosis. Individuals' responses to medication are unique, so treatment inevitably involves some degree of trial and error.
- Polypharmacy can greatly improve welfare, particularly if owners are unable to do the necessary training their pet's condition requires.
- Start all longer-term anti-anxiety medications at sub-therapeutic doses for the first week of treatment.

Veterinarians have many options to support happy, healthy human-animal relationships, whether that relationship was established during the pandemic or at other times. Here is a list of some of Dr. Pankratz's favourite resources for cat and dog owners to give you some ideas:

- Dr. Sophia Yin, "Getting Your Cat to the Vet," Instinct Puppy Parenting Guidebook. Available free online at www.Instinctdogtraining.com/ puppy-parenting-guidebook/.
- Sophia Yin and Lili Chin, Perfect Puppy in 7 Days, CattleDog Publishing.
- Kenneth Martin and Debbie Martin, Puppy Start Right: Foundation Training for the Companion Dog, Karen Pryor Clickertraining.
- Ultimate Puppy website: www.ultimatepuppy.com.
- Dr. Sophia Yin, Kitty Kindergarten: Creating the New Improved Cat Through Early Socialization (DVD).
- Food Puzzles for Cats website: www.Foodpuzzlesforcats.com.
- Instinct Online School website : https://onlineschool.instinctdogtraining.com.
- Books: Patricia B. McConnell, PhD, I'll Be Home Soon!: How to Prevent and Treat Separation, McConnell Publishing. And Drs. Debra Horwitz and John Ciribassi, Decoding Your Dog, American College of Veterinary Behaviorists.
- Muzzle Up! Project website: www.muzzleupproject.com.
- Nature-Driven Nurture Foundations online course: https://onlineschool.instinctdogtraining.com/course/nature-driven-nurture.

To save space, the references for this article are made available on the Chapter's website at www.canadianveterinarians.net/sbcv/west-coast-veterinarianmagazine. WCV





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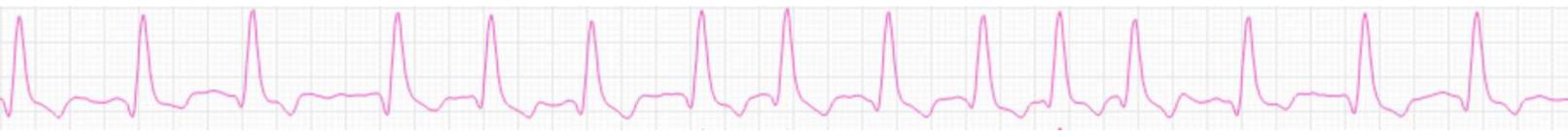


FIGURE 1: Lead II ECG strip (50 mm/s, 10 mm/mV) from a Great Dane with DCM. A markedly irregular supraventricular rhythm with no P waves is present, indicating atrial fibrillation. The average heart rate is approximately 200 beats/minute.

DCM AND DIETS: IT'S MORE THAN GRAINS

BY MARK HARMON, DVM, DACVIM (Cardiology)

ilated cardiomyopathy (DCM) is one of the most common causes of congestive heart failure, arrhythmias, and sudden death in dogs. Large and giant dog breeds such as the Doberman Pinscher, Great Dane, Boxer, and Irish Wolfhound are commonly reported with this disease. The Cocker Spaniel, Portuguese Water Dog, Standard Schnauzer, and Toy Manchester Terrier are also predisposed to DCM.

DCM disease stage can be classified into three groups: patients with no discernible abnormalities (i.e., an "at-risk" population), patients in an asymptomatic phase typically termed occult DCM (e.g., single ventricular premature complexes in a Doberman), and patients with clinical signs. DCM causes impaired cardiac contractility as well as dilation of the ventricle(s). The left ventricle is almost always affected, but the right ventricle can be involved as well. This can lead to the development of left- and/or right-sided congestive heart failure. Supraventricular (see Figure 1) and ventricular arrhythmias (see Figure 2) are quite common in the later stages of this disease. Ventricular arrhythmias also predispose to a relatively high risk for sudden death to occur. Approximately 60 per cent of Dobermans develop DCM, and of these, 25-30 per cent may die suddenly due to a ventricular arrhythmia, often without any premonitory signs.

"I HAVE PERSONALLY DIAGNOSED MORE THAN 200 DOGS WITH daDCM SINCE 2017, AND IT REMAINS A MAJOR PROBLEM IN OUR **BC PET POPULATION."**



FIGURE 2: Lead II ECG strip (50 mm/s, 5 mm/mV) from a Doberman with DCM. An underlying sinus rhythm is present interrupted by a single ventricular premature complex (VPC) and then a run of ventricular tachycardia at a rate of 333 beats/minute. Negatively deflected QRS complexes in the ventricular beats are consistent with an origin in the left ventricle

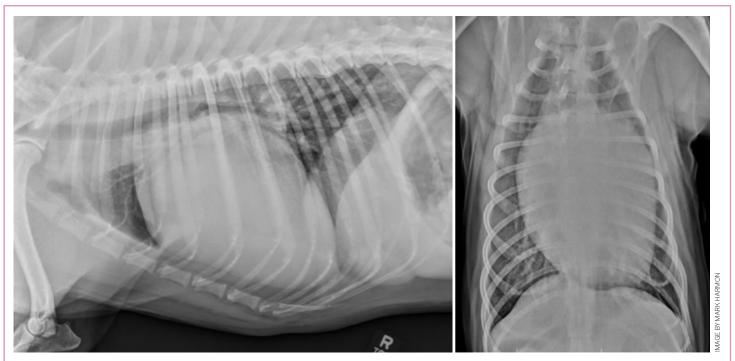
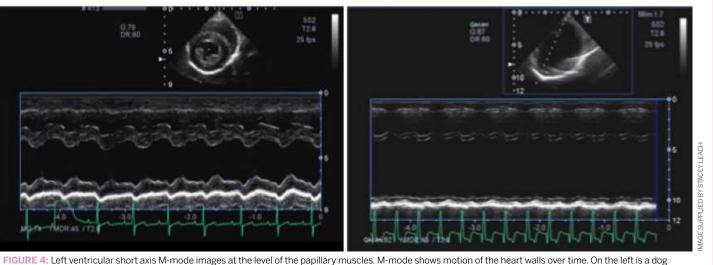


FIGURE 3: Thoracic radiographs (right lateral and VD projections) from a five-year-old Golden Retriever eating a pea and lentil-inclusive diet. There is marked congestive heart failure.



contractility.

enlargement of the cardiac silhouette, predominated by left atrial and left ventricular enlargement. Pulmonary venous size is normal with no current evidence of

with normal contractility of the left ventricle. On the right is a dog with dilated cardiomyopathy showing marked dilation of the left ventricle and marked reduction in

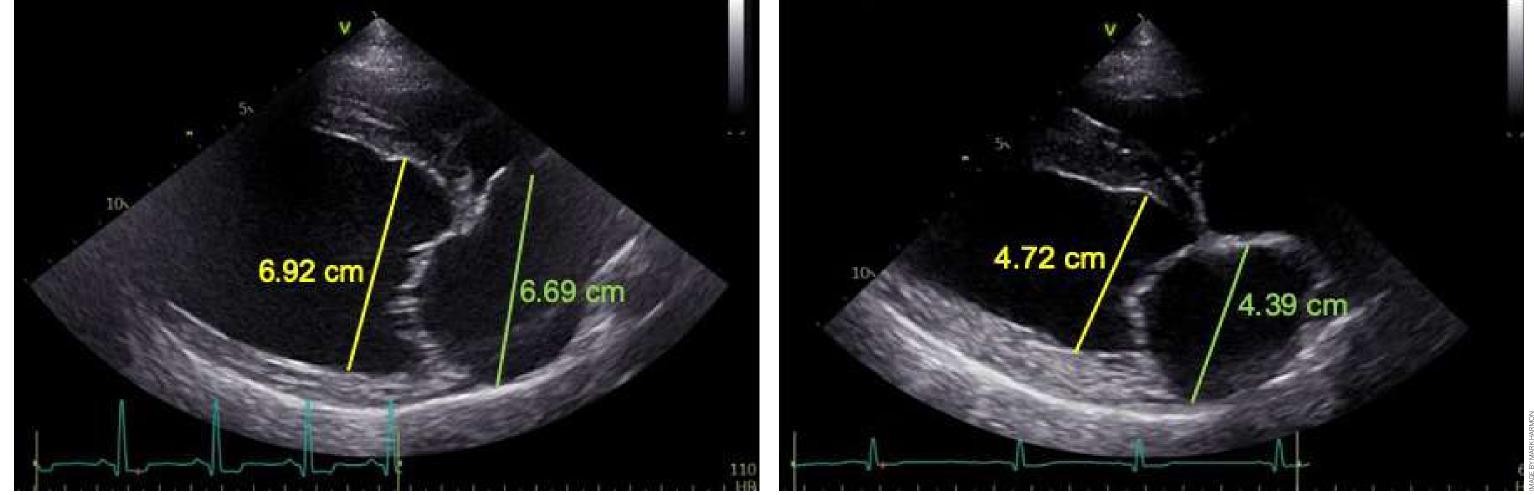


FIGURE 5: Four chamber long-axis echocardiographic images from the patient in Figure 3. On the left is the baseline echo obtained at the time of the radiographs showing marked left ventricular (yellow) and left atrial (green) dilation. On the right is the same dog 18 months after a change to a diet free of peas and lentils. The left atrium and left ventricle are approximately 33 per cent smaller.

Although commonly thought of as a single disease entity, DCM is a heterogeneous condition and would be more appropriately considered an end-result of an extensive cardiac insult. Primary DCM describes either idiopathic disease or disease caused by a known genetic abnormality. Dobermans have two specific genetic mutations associated with DCM, currently known as DCM1 and DCM2. In people, there are more than 30 known genetic defects associated with DCM, so it is likely that there are still undiscovered genetic mutations in dogs. Even in this group, primary DCM is a heterogeneous condition. Dobermans have a high risk for sudden death and their prognosis is often less than six months after showing signs of heart failure. However, Great Danes have a considerably lower risk for sudden death, and often live much longer once diagnosed with heart failure.

While primary DCM is typically the type that comes to mind when the diagnosis is made, DCM can also occur secondary to an underlying condition. Causes for secondary DCM include drugs or toxins (e.g., doxorubicin toxicity), chronic myocarditis, frequent or incessant tachycardias, nutritional deficiencies (e.g., taurine or thiamine), and other diet-associated causes (more on this below). Implication of a cause may have major impacts on the prognosis. Taurine deficiency has been described in both dogs and cats since the 1980s, and supplementation in these animals can lead to improvement or even normalization of the heart function.

Identifying an animal with occult DCM is not always easy. Whereas dogs with degenerative valve disease often have loud murmurs for years before they develop signs of heart failure, dogs with DCM tend to have soft murmurs, typically no louder than grade 3 and often quite a bit softer. A gallop sound may be appreciable due to early filling of the enlarged ventricle. Arrhythmias may be noted, but absence of an arrhythmia inhospital does not ensure a serious arrhythmia is not occurring in these animals. Femoral pulses may feel weaker than normal, although this difference is usually quite subtle in the earlier stages of disease. Unfortunately, DCM is often diagnosed late in the disease course, at which time signs of congestive heart failure are common, including activity intolerance, weakness or syncope, laboured breathing, increased bronchovesicular sounds with or without crackles, and abdominal distension with a fluid wave on ballottement of the abdomen.

Given the difficulty in catching these dogs in the occult stage of their disease, an emphasis should be placed on routine screening of breeds known to be at risk. B-type natriuretic peptide (BNP) is a biomarker that can detect increased stress on the heart walls. It can be a useful tool to help identify dogs with occult forms of the disease, but we are starting to realize there may be more breed variation with these than once thought. Laboratories generally report a BNP concentration < 900 pmol/L as normal in dogs. However, normal Labrador Retrievers can have concentrations over 2,000 pmol/L. Importantly, Dobermans are another breed where the laboratory stated reference range is misleading. Dobermans with a BNP concentration > 460 pmol/L have been shown to be at a high risk for developing DCM in the near future. Breeds at the highest risk for fatal arrhythmias (Dobermans, Boxers) should also undergo routine Holter monitor (24-hour ambulatory ECG) screening. Holter monitors are often available through local

breed groups, but if that is not feasible, I routinely recommend owners of these breeds purchase their own Holter monitors as a more cost-effective method of chronic monitoring. Thoracic radiographs (see Figure 3) are clearly indicated in the patients exhibiting respiratory symptoms, and echocardiography remains the definitive diagnostic (see Figure 4). Other screening (e.g., cardiac troponin-I, taurine measurement) should be considered on a case-by-case basis. Our practice recommends that owners begin annual screening for Dobermans at two years of age with BNP measurement and Holter studies, as this combination has shown the highest sensitivity for detecting occult DCM for the breed. If either of these processes identify concerns for DCM, the patient should be referred to a cardiologist for echocardiographic evaluation and consultation.

Medical intervention during the occult stages of the disease can improve the prognosis for dogs. Pimobendan and angiotensin converting enzyme (ACE) inhibitors have both shown benefits in Dobermans for slowing progression into heart failure. Specific anti-arrhythmic therapy should be based on ECG and/or Holter monitor results. If a specific cause for DCM can be identified and treated, the disease may be stabilized or its progress slowed. Once signs of congestive heart failure have developed, furosemide should be added. Spironolactone is also often added for its ability to block the effects of aldosterone and slow detrimental remodelling of the heart, but it provides no clinically relevant diuresis in dogs. Therapy for the myriad issues seen in dogs with DCM is best performed under the supervision of a cardiologist when possible.

DIET-ASSOCIATED DCM (daDCM)

Starting around 2017, veterinary cardiologists started noticing an increase in atypical dog breeds being diagnosed with DCM. Golden Retrievers formed the initial population to be actively studied. Despite their long-time popularity in North America, they had not been reported to have any known genetic predisposition for DCM. They were, however, known to be more at risk for taurine deficiency. Evaluation of the diets in taurine-deficient Golden Retrievers identified that they were almost universally grainfree and legume-rich (specifically pea or pea components, lentils, chickpeas, and beans). As seen in historical reports of taurinedeficient cardiomyopathy in dogs and cats, supportive treatment with medications, taurine supplementation, and diet change led to an improvement in the majority of the dogs studied.

The U.S. Food and Drug Administration (FDA) began an investigation into a link between certain diets and dilated cardiomyopathy in dogs in 2018. Four alerts were published from the FDA, with the last being in December 2022. At that time, the FDA announced it would not be releasing any more case information unless a clear cause was identified. Although some tried to interpret this as a sign that it was never an issue or that it has gone away, this is clearly not the case.

To date, 18 peer-reviewed studies have evaluated the link between diet and dilated cardiomyopathy. As new research emerges, our understanding of this issue continues to be refined. Although the initial efforts were focused on taurine, it has become clear that the issue is more complex than a simple deficiency in taurine alone, and how much taurine deficiency plays a role in this current issue is still unclear. Only one of the 18 studies looked specifically at cats on pea- and/or lentil-inclusive diets, and the degree to which cats are at risk for this condition remains unclear.

Currently, it appears that any dog breed can be affected with diet-associated DCM (daDCM), including those with known genetic predispositions for DCM. Certain breeds, including Golden Retrievers and Pit Bull-type breeds, may be at a higher risk for daDCM when fed these types of diets. Affected dogs are typically fed these diets for years before issues arise; studies looking at shorter time spans often fail to find any detectable change in heart function. Legume-rich diets have been shown to cause varying degrees of cardiac insult using high-sensitivity cardiac troponins even when there is no echocardiographic evidence of DCM. Additionally, several studies have documented that the clinical course of dogs diagnosed with diet-associated DCM who have their diet changed and are started on supportive medications differs from that of dogs with primary DCM. These dogs often live longer and show improvement in their heart function over time. Importantly, there have also been reports of Dobermans and other typical DCM breeds improving following an appropriate diet change.

The terminology around the diets involved in these cases has changed frequently. Although initially most people in the veterinary field termed the issue a "grain-free" diet problem, the additional research has identified that the presence or absence of grain in a diet is not a reliable indicator of safety. Rather, diets containing peas, lentils, chickpeas, or beans have been implicated with daDCM. This is an important distinction because inclusion of a grain in a problematic diet is not protective against daDCM.

If there is any suspicion of daDCM, the patient should see a cardiologist directly, and often consult a nutritionist as well. The cardiologist is the best person to image such patients as often telemedicine and non-cardiologist imaging do not provide extensive enough information to accurately monitor patients over time. Additionally, this remains an evolving issue and cardiologists will be able to provide owners with the most current information. In the absence of a cardiologist's evaluation, the standard supportive medications described above should be combined with a diet change to one that does not include peas, lentils, chickpeas, or beans. Since newer research has shown that the majority of patients are not taurine-deficient, I rarely send blood off to assess taurine concentration; however, taurine supplementation is easy and safe should owners want to include this in their treatment regimen.

I have personally diagnosed more than 200 dogs with daDCM since 2017, and it remains a major problem in our BC pet population. These dogs are reliably eating diets containing peas (often various forms, such as whole green peas, pea starch, pea flour, etc.), lentils, or chickpeas. If these dogs can be identified before they develop heart failure and an appropriate diet change can be made, the majority will show slow improvement over months to years (see Figure 5). If these animals have already developed heart failure, our best hope is often to stabilize the heart disease with a diet change, although some can show striking improvements over time. Unfortunately, the damage is too extensive in some of these dogs, and they will succumb to the disease. WCV



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A TALE OF TWO RESTAURANTS: A LESSON FOR VETERINARY MEDICINE "People will forget what you said, people will forget what you did, but **BY ELAINE KLEMMENSEN, DVM, CEC** people will never forget how you made them feel" – Maya Angelou

he restaurant was reportedly the BEST seafood restaurant on the entire island, and after the third person recommended it, we started paying attention. It was August 2022, and my husband, Rob, our pup, Eddie, and I were cycling across Newfoundland. After braving the bugs, eating boil-in-the-bag meals night after night, and climbing hill after hill, each larger than the last, we were more than ready for the BEST restaurant in all of Newfoundland. We rolled up to a quaint heritage building with large windows to take advantage of the view, and my mouth started watering. A reservation was required, so we made one for the following night.

We peddled off, wondering what we would eat in the meantime. The tiny fishing village of 500 residents had only one other eatery, a little café attached to the town's gas station with a total of six tables. My expectations were low, but my legs were tired and my stomach was empty As we walked through the door, we were greeted by a delightful server who shouted, "Seat yourselves anywheres yous can find, my loves!" We grabbed the only empty table and had a look around. No tourists here, but rather local folks out for a simple meal. Our neighbouring diners smiled at us, and a man at the table next to us asked where we had "blown in from." Laughter ensued. The hospitality Newfoundland is known for was in full force. Our jolly server returned, and I decided to order the Shipwreck. She raised one eyebrow, squinted at me, and said, "I am supposing you find yourself gut-founded after your big ride?" Roughly translated, that meant "Woman, you must be some hungry because that is a big meal!" Seeing my hesitation, she leaned in with a twinkle in her eye. In a conspiratorial whisper, she said, "Oh, do it! Have yourself the 'wreck." When she returned with our order, she took care to approach me from behind to reach around and plunk down my plate with a flourish. It was the biggest platter of food I have ever seen. Fries, turkey, dressing, cranberry sauce, and cheese curds, all smothered in an ocean of gravy. A "'wreck" is the Newfie version of poutine, and it was delicious! On seeing my reaction, the entire restaurant erupted in laughter. By evening's end, we found ourselves singing "Happy Birthday" to a fellow diner and sharing the homemade cake they had brought along for the occasion. It was one of those unexpected and unforgettable travel experiences where instead of observing the culture from the outside, you feel a part of it.

With full bellies and full hearts, we fell asleep to the sound of rain on our tent roof while wondering what magic awaited us at the BEST seafood restaurant in all of Newfoundland. We awoke to sunshine exploding through the clouds. It was a perfect day to explore the town while waiting for our dinner reservation. Arriving at the restaurant with great expectations, we were met by an efficient hostess who quickly took us to our table. When we asked if we could sit at one of the empty tables with an ocean view, her answer was a firm no. Interestingly, these tables remained empty throughout the evening. I glanced around to discover hockey legend Mark Messier seated at a table nearby. My expectations rose even higher. Our server arrived, filled our water glasses, and in a very formal manner, without making eye contact, informed us she would

return shortly with the "announcements." It turned out the "announcements" were a formal reading of the dinner options. They were delivered efficiently but with little enthusiasm or interest in interacting with us. We could hear laughter emerge from the kitchen each time the wait staff pushed through its door, but the restaurant itself remained cloaked in a cool formality. The Newfie fun and hospitality remained relegated to the kitchen staff. The view was lovely, the food was fine, and while our stomachs were full, we left feeling a little empty.

Reflecting on the above experiences offers important insights for anyone who works in a service industry. While veterinary medicine is many things to many stakeholders, at its core it is and always will be a service industry. We provide a service. If customers need our service, they will walk through our doors. Whether they return or not depends on their experience. Had I spent a third night in this little coastal community, can you guess which restaurant I would have returned to?

Our success in veterinary medicine depends on more than having a great location, a beautiful facility, high-tech equipment, or highly skilled team members. As a service industry, how we make people feel matters, and I would argue it matters THE MOST. Does a visit to our hospital provide a skillful diagnosis and a treatment plan, or does it offer a skillful diagnosis, a treatment plan, AND a feeling of being cared for and truly seen?

Those two restaurants had very different cultures. Cultures I felt as much as I experienced. If you think the culture of your practice has no impact on your client and patient experience, I invite you to think again. Take an honest look at what it would feel like to be a client at your hospital. Would you feel like a respected partner in your animal's care? Does the team listen to you to understand your perspective? Do they make you feel valued and appreciated? And perhaps most important, would you return to your hospital?

The current reality of high demand for veterinary services in the face of workforce shortages can cause us to lose sight of the fact that veterinary medicine is and always will be a service profession. How we make people feel matters. It matters to our clients, our patients, and the people on our teams. It makes a difference to our financial bottom line as well as our well-being bottom line. I have a hunch that finding our way back to "being in service" may also help us find our way back to joy. Reconnecting with why we do what we do is a powerful place to start as we reimagine what the future of veterinary medicine might look like.

PESSIMISM AND OPTIMISM IN DOGS? A NEW STUDY LOOKS AT THE VALIDITY OF A COGNITIVE TEST

Joseph Krahn, MSc Student, Animal Welfare Program, UBC; Amin Azadian, DVM, PhD Student, Animal Welfare Program, UBC; Camila Cavalli, PhD, Animal Welfare Program, UBC; Julia Miller, DVM, PhD, Wrocław University of Environmental and Life Sciences; and Alexandra Protopopova, PhD, CAAB, Animal Welfare Program, UBC

ave you ever wondered if your dog is optimistic? Determining animals' emotional or affective state can help us understand their welfare status in a specific context (e.g., a shelter environment) or their interpretation of a recent experience (e.g., receiving an injection). Researchers have developed a variety of behavioural and cognitive tests to better understand some components of nonhuman-animal affective states. One of these tests, the judgment bias test (JBT), is frequently used as it is straightforward to conduct and has been adapted for use in many different species. It tests an animal's perception of ambiguous stimuli and has been considered by previous researchers to reflect whether animals see the world optimistically or pessimistically.

HOW DOES A JUDGMENT BIAS TEST WORK?

JBTs are widely used by researchers, but the methodology used varies depending on the scientific study. Generally in a JBT, animals are first trained to discriminate between one location with a reward (S^{D}) and another location with no reward (S^{Δ}). They are then presented with a location between the S^{D} and S^{A} , and their behavioural response to this ambiguous location is used to assess the animal's expectation of reward-namely, their "optimism." Quicker approaches to the ambiguous locations are considered to represent more "optimistic" expectations as animals assess the middle locations to be more likely than not to contain food.

WHAT INFLUENCES "OPTIMISM" IN A JBT?

An animal's "optimism" as assessed by a JBT is often attributed to mood, and by extension affective state and welfare. For example, dogs trained with aversive-based dog training (i.e., methods using more frequent positive punishment/negative reinforcement, physical punishment such as smacking or shaking, or the use of an electronic shock collar) responded "pessimistically" in the JBT: they did not approach the ambiguous locations as quickly as dogs trained with positive reinforcement methods. However, the outcomes of JBTs can also be influenced by factors that may be independent from welfare, such as previous learning history. For example, aversive-based dog training also punishes dogs for behaving without owner commands-thereby also training dogs to be highly discriminative in their environment to avoid a scolding or a leash jerk. And in fact, previous studies have suggested that learning history may alter the interpretations of the JBT simply due to the animals' learning to discriminate between locations more effectively. Currently, it is impossible to pinpoint which factor—previous training or current affective state—is influencing "optimism" in dogs.

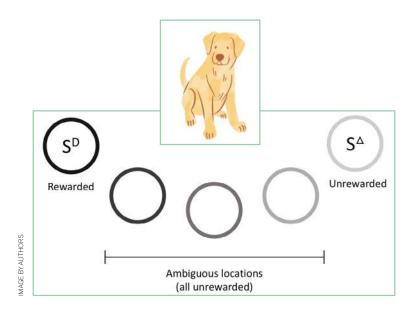
OUR AIM

Our aim was to determine if a learning task (i.e., training treatment) could influence an individual's "optimism" in a JBT independently from changes in affective state. We hypothesized that training that promotes generalization will cause an animal to show greater "optimism" during a JBT compared to training that promotes discrimination, independent of the dog's mood state.

WHAT WE DID

All procedures were conducted at the University of British Columbia's Animal Welfare Program between November 2022 and March 2023. Sixteen pet or companion dogs completed three study phases: a pre-treatment JBT, an experimental learning task, and a post-treatment JBT. In the learning task, eight dogs were randomly assigned to one of the following conditions: discrimination or generalization. The learning tasks were purposefully not location-based so that we did not create experiences too similar to the JBT trials. The tasks involved teaching the dogs an arbitrary behaviour: a nose-touch to the palm of the hand. The dogs were first trained to perform a nose-touch on an experimenter's hand. Then, during discrimination, the experimenter presented a dog with two hands at the same time in each trial. The dog was only rewarded for touching one particular hand to encourage discrimination between the hands. In generalization, the dogs were presented with one hand per trial in alternating sequence and responses on both hands were rewarded, thereby not allowing the dog to discriminate between them. To control for possible frustration differences due to the presence of non-rewarded trials in discrimination (if dogs make an error and respond to the non-rewarded hand by touching their nose to the experimenter's hand), dogs in generalization were match-paired to dogs in discrimination to receive the same number of randomly distributed unrewarded trials. As a further control, the owners were asked to describe the current emotional state of their dog prior to each session. Both the experimenters and owners wore sunglasses during the experiments to avoid the possibility of gaze-tracking that might impact the dogs' decision and performance. We used a linear mixed model to analyze how an individual's latency to approach the ambiguous locations (i.e., their "optimism") differed between the pre- and post-treatment JBTs based on the learning task that they received.

"WE FOUND NO EVIDENCE THAT THE LEARNING TASK AFFECTED **'OPTIMISM' IN DOGS.''**



The experimental set-up we used to test judgment bias in dogs.





WHAT DID WE FIND?

We found no evidence that the learning task affected "optimism" in dogs. This suggests that the JBT is a robust method to investigate "optimism" and affective states in dogs. Alternatively, "optimism" as measured in our JBT procedure may not be sensitive to the type of pre-session discrimination and generalization training used, but it is generally sensitive to previous learning history. Perhaps our learning tasks were too dissimilar to the JBT procedure and too short in duration, thus limiting the priming effect of the learning task on the individual within the testing environment.

WHAT'S NEXT?

Despite considerable scrutiny of JBTs for many factors, including low repeatability within individual animals, multiple influencing variables, and variation across studies in methods and results, they are still widely used for assessing emotions and welfare in animals. More research is necessary to promote valid, repeatable results and appropriate interpretation of the JBT outcomes. We are still learning how to assess "optimism" in our dogs. Given that this test was not sensitive to a pre-training session in our study, it is quite possible that aversive-based training does, in fact, result in a longer-term pessimistic state in dogs.







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CASE STUDY: AN RVT PERSPECTIVE

This is a new column featuring a case study from the RVT's point of view, focusing on the breadth of knowledge of RVTs and the work they do daily.

THE PROBLEMATIC PIT BULL BY MONICA THOMAS, RVT, VTS (ECC)

PRESENTATION

10-year-old female spayed Pit Bull Terrier cross presented to the emergency room for forelimb lameness due to a recent dewclaw trauma. Within the past week, the owner had noted a gradual decline in appetite and energy, and the development of hypersalivation. Previous medical records revealed a history of hypothyroid disease, which was managed with Thyro-Tabs (levothyroxine), and intermittent hip pain, treated as needed with gabapentin (a neuropathic analgesic).

Upon presentation, I assessed and triaged the patient. She weighed 31 kilograms, and I noted her demeanour to be quiet. I obtained baseline vitals, which included a heart rate (HR) of 120 beats per minute (ref: 60–120 bpm) with fair and synchronous pulses, and a systolic blood pressure (SBP) of 55 mmHg (ref: 110–150 mmHg) via Doppler. Her respiratory rate (RR) was 32 respirations per minute (ref: 12– 40 rpm) with mildly increased respiratory effort, and peripheral capillary oxygen saturation (SpO2) measured with pulse oximetry was 99 per cent on room air. I assessed the mucous membranes to be slightly pale pink with a capillary refill time of

approximately two seconds and overmoist due to the hypersalivation present. She was mildly hypothermic with a rectal temperature of 37.0°C (ref: 37.5–39.2°C). I noted significant muffled heart and lung sounds and found auscultation very challenging. I therefore proceeded to perform a point-of-care ultrasound (POCUS). A thoracic focused assessment with sonography for triage (T-FAST) revealed marked bilateral pleural effusion with no obvious pericardial effusion present. I did not appreciate free fluid in any of the four quadrants during the abdominal focused assessment with sonography for triage (A-FAST).

I immediately informed the veterinarian of these clinical findings and initiated emergency stabilization.

"A POCUS EXAM CAN BE READILY PERFORMED BY TRAINED RVTS, NOT SOLELY VETERINARIANS. IT IS QUICK AND NON-INVASIVE, AND WITH ADVANCED COMPETENCY, INCREASES THE RVT'S ABILITY TO DETECT EVEN SMALLER, LOCALIZED POCKETS OF FREE FLUID."

INTERVENTIONS

The veterinarian performed a physical exam, which was consistent with my findings, and no other significant abnormalities were noted. While the veterinarian spoke with the owners about the history and exam findings, I started the patient care treatment plan provided. I placed an intravenous catheter and collected blood samples for a blood gas analysis and packed cell volume and total solids (PCV/ TS). An Isolyte S (an isotonic crystalloid) intravenous fluid (IVF) bolus of 10 mL/kg over 15 minutes was administered. I also placed an electrocardiogram (ECG) for continuous monitoring and noted there were no arrhythmias present.

I reviewed the point-of-care blood tests which revealed a compensated metabolic acidosis (pH 7.355, pCO2 33.9 mmHg, HCO3-19.3 mmol/L, BE -6.6 mmol/L), mild hyperglycemia (7.4 mmol/L), moderate hyperlactatemia (5.1 mmol/L) consistent with poor perfusion, and PCV 35 per cent (ref: 35 per cent-45 per cent) and TS 6.5 mg/dL (ref: 6.0–7.5 mg/dL). After the fluid bolus was completed, I reassessed the cardiovascular parameters, which revealed a persistent HR of 120 bpm and a mildly improved SBP via Doppler of 75 mmHg. The veterinarian was informed of these results while in consultation with the owners and an additional Isolyte S IVF bolus of 10 mL/kg over 15 minutes was requested and provided.

FURTHER INTERVENTIONS

The owners elected to proceed with a thoracocentesis to further improve the patient's perfusion and comfort levels. I advocated for an injection of maropitant (a neurokinin-1 receptor antagonist) due to the patient's hypersalivation and presumed nausea, and maropitant 1 mg/kg IV was administered. An additional Isolyte S IVF bolus of 10 mL/kg over 30 minutes was administered as the heart rate maintained at 120 bpm, and the SBP via Doppler marginally improved to 80 mmHg. After open dialogue and discussion with the veterinarian regarding the sedative plan, I prepared the sedation protocol using butorphanol (an agonist-antagonist opioid analgesic) 0.2 mg/kg IV, midazolam (a benzodiazepine tranquilizer and muscle relaxant) 0.1 mg/kg IV, and alfaxalone (a neurosteroid injectable anesthetic) IV for titration to provide adequate sedative effects. Emergency supplies including endotracheal tubes and emergency drugs (atropine, epinephrine, and lidocaine) were prepared in case of cardiopulmonary arrest. Both sides of the chest were shaved, and sterile prep performed. The veterinarian performed the thoracocentesis while I provided sedation and flow-by oxygen via mask, and diligently monitored vital signs, including HR, blood pressure, ECG, RR, respiratory nature, and SpO₂.

Subsequently, 410 mL of non-clotting blood (PCV/TS 35/6.0) was removed from the right side of the chest and the procedure was aborted when the respiratory rate and nature improved, leaving approximately 4 centimetres of pleural effusion bilaterally. However, the patient became increasingly hypotensive and tachycardic, and was therefore placed on 3.2 mL/kg/hr (100 mL/hr) Isolyte S IVF therapy and received hypertonic saline 2 mL/kg to increase intravascular volume, which was repeated. In an attempt to prevent blood clots from breaking down and therefore reduce further hemorrhage, tranexamic acid (an antifibrinolytic), 10 mg/kg, was slowly administered intravenously.

OUTCOME

After the thoracocentesis, the veterinarian visualized on T-FAST a suspected lung nodule along with a mass on the heart. Based on exam findings and the hemothorax, the primary suspicion was an acute bleed due to a ruptured neoplastic tumour with metastasis to the lungs. The most common heart base tumours are hemangiosarcomas (HSA) or chemodectomas (aortic body tumour). HSA typically originates in the right atrium or right auricle, causing hemorrhagic pericardial effusion, but may also occur at the heart base, left ventricle, or in the septum. It is an aggressive neoplastic process and metastases are common, especially metastatic lung lesions. HSA is friable, often causing complications associated with spontaneous hemorrhage due to tumour rupture. Chemodectomas are located at the base of the aorta and originate from chemoreceptor cells responsible for detecting changes in blood oxygen, carbon dioxide, and pH levels. These tumours tend to be locally invasive, but metastases can occur to other organs.

Further diagnostics, including cytology of the pleural effusion, three view thoracic radiographs, and abdominal ultrasound, were discussed with the owner, but the prognosis was considered grave and humane euthanasia was strongly recommended. The owner spent some time with their beloved pet before humane euthanasia was performed.

DISCUSSION

A POCUS exam can be readily performed by trained RVTs, not solely veterinarians. It is quick and non-invasive, and with advanced competency, increases the RVT's ability to detect even smaller, localized pockets of free fluid. The use of a POCUS exam improves the accuracy of patient triage and can allow for serial examinations to be performed by RVTs to monitor for delayed fluid accumulation, or progression or resolution of free fluid. By being able to quickly scan the patient in the situation I describe above, I was able to immediately identify the potentially life-threatening emergency and help implement supportive measures in a timely manner. In addition, the veterinarian demonstrated great trust in my ability to monitor the patient's status and communicate any concerns. I was then able to be proactive and anticipate the needs of both the veterinarian and the patient.

RVTs are leaving the industry faster than new ones are entering, and one of the primary reasons is that they are not being permitted to develop and use their full range of skills. Allowing and encouraging them to perform tasks that make the greatest use of their skills contributes to their job satisfaction. Veterinarians also benefit, as the RVT can share the workload and allow the veterinarian to focus on their own specific DVM duties and therefore manage their time more effectively. In this case, the veterinarian was able to have a dedicated conversation with the owner and perform the highly technical thoracocentesis procedure because an RVT was monitoring and ensuring the stability of the patient.

"I WAS THEN ABLE TO BE PROACTIVE AND ANTICIPATE THE NEEDS OF BOTH THE **VETERINARIAN AND THE PATIENT.**"

To develop skills and abilities within a team, it is important to delegate according to team members' level of expertise and interest. Creating an environment of growth and development in which team members can use their skills fully allows for a more efficient workflow, stronger team dynamics, and improved patient outcomes. However, team members must be given the tools and support, the training, and the mentorship they need to succeed. Building this foundation of skills and ability improves morale, as people feel more valued and appreciated when their skills are both valued and used to their full extent. In addition, it provides a sense of purpose and a feeling of pride and accomplishment. A confident and competent veterinary team is a key component of any successful veterinary hospital.

To save space, the references for this article are made available on the Chapter's website at www.canadianveterinarians.net/sbcv/westcoast-veterinarian-magazine.

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THE BASICS OF BUSINESS STRUCTURES BY SCOTT NICOLL, BA, MA, LLB AND GURINDER CHEEMA, BA, LLB

ou may recall that our last column discussed professional negligence claims. How you structure your business may

become relevant if you are ever found liable for professional negligence, among other claims. Every professional should understand the implications of a finding of liability on you and your business. You may be liable to pay damages, and the extent of your financial and professional exposure to this liability will depend on the structure of your business.

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If you currently operate your own veterinary practice, or you hope to do so at some point, you must understand and make an informed choice respecting the different business structures available to you. Starting and running a business requires careful consideration of the legal structure that best suits your needs. Each business structure comes with its own unique features, advantages, and, of course, disadvantages. The most common types of business structures are sole proprietorships, partnerships, and corporations. This article provides an overview of each and discusses how you may choose between them for your own practice.

SOLE PROPRIETORSHIP

We still start with the simplest structure first. As the name suggests, a sole proprietorship is a business owned and operated by one person. The proprietor has complete control over the business and is responsible for all aspects of its operation.

The primary advantage of a sole proprietorship is its simplicity. From a legal perspective, the business is the same as the individual. Put another way, you are the business. The only legal requirement for a sole proprietorship is that you register your business name if that name is different than your own. The process is easy and affordable.

A second advantage of a sole proprietorship lies in the proprietor's control over the business. The owner can make all the decisions and implement them without seeking anyone else's approval, facilitating flexible and quick decision-making. There are no other directors, no partners, and no requirements to report to any others who may have an interest in the business. You will see when we discuss the other structures that this may be an attractive advantage.

Now the disadvantages. The simplicity of sole proprietorships is both an advantage and a disadvantage. The main disadvantage of a sole proprietorship is your unlimited liability. You will recall that we began our discussion with the possibility of you becoming the subject of a lawsuit. The sole proprietor is responsible for all legal responsibilities arising out of the business. Remember, you are the business and the business is you. This means that as the proprietor, you are personally liable for all the debts and obligations of the business. You own a house with equity in it? Well, so does your business in that case. Your business creditors will do a search of the Land Title Office the first time they have any concerns about providing you with credit to see if you own property. That asset will be there for any judgment creditors to file a judgment against, and possibly force the sale of, to satisfy their judgment. This is a significant, and often the determining, disadvantage of this structure for many professionals. You will likely know that there are some professionals who intentionally take steps to make themselves judgment-proof in order to avoid the high cost of professional liability insurance. They do so because of the exposure they would otherwise have if they were not judgment-proof.

Simplicity in its creation and operation, including the lack of expensive legal and accounting fees, can make a sole proprietorship seem particularly attractive at the outset of your professional career. However, you should weigh the relative value of that simplicity against the potential value of the risk that you expose yourself to personally when you adopt that model. It may be appropriate for your personal risk tolerances or it may not be. You are the only one who can determine that for you.

A partnership is a business structure where, you guessed it, two or more people share ownership of the business. Each partner theoretically contributes to the business's capital, skills, and labour. Each partner also shares in the profits and losses of the business and can be held personally responsible for liabilities incurred by the partnership, regardless of which partner incurred them in some cases. Partnerships are created by written agreement between the partners and are governed by the Partnership Act in British Columbia. Where you and another veterinarian practise together as equal owners of the same business, you would be considered partners, provided you meet all the requirements for the same.

LIMITED PARTNERSHIP

A limited partnership is a type of partnership that consists of at least one general partner and at least one limited partner. The limited partner is an investor who cannot take an active part in management of the business. Think of an angel investor who contributes mostly money and perhaps some helpful introductions. The limited partner's liability is limited to the amount of their investment. That is, they cannot lose or become liable for an amount that is more than they have invested in the business. The general partner is involved with the management of the business and does not enjoy limited liability. They are exposed to liability similar to the manner of a sole proprietor.

LIMITED LIABILITY PARTNERSHIP

A limited liability partnership is a type of partnership in which partners in a business are not liable for the actions of their partners unless they were involved in the loss or were negligent. Limited liability partnerships are primarily utilized by professionals in British Columbia.

One of the main advantages of a partnership is the shared responsibility and workload. Each partner's unique skillset and experience may facilitate more informed decisionmaking. A practical advantage of a partnership is the sharing of resources, which makes it easier to finance the business. Partnerships are flexible, and businesses operating as such can easily expand or scale back operations by adding or removing partners. They are

PARTNERSHIP

ADVANTAGES AND DISADVANTAGES OF PARTNERSHIPS

also easy to adjust when you have different partners wanting to contribute different amounts of capital or time to a business. As professionals age, we typically find ourselves somewhat less eager to burn the proverbial midnight oil than our younger and perhaps more aggressive colleagues.

Any lawyer can tell you that a partnership also comes with the risk of potential disputes between partners. I am not exaggerating when I say that my practice as a commercial litigator has involved the resolution of business partner disputes perhaps more than any other single type of matter. Partners may have the same idea about how to approach a business venture when the business begins. Those ideas can change over time, however, and when they do, you will want to ensure that you have a partnership agreement in place. The need for such an agreement cannot be over-stated. Such agreements have evolved over time to anticipate many different types of issues that may arise between partners, and they are always the place to start when you believe you may be at odds with one of your partners. They should also be carefully drafted by someone experienced in the field. Poorly drafted partnership agreements are the most effective way to send you in search of a litigator.

CORPORATIONS

A corporation is the nebulous villain in so many genres of fiction. The faceless and unaccountable entity, remote and untouchable as it visits the effects of its well-funded initiatives upon those standing in the way of its anti-human goals. Well, the Matrix it is not, but a corporation is very definitely a fictional person. It is a legal entity that is separate and distinct from its owners, whom you know as shareholders. And, like many of the best villains of horror genre, a corporation really does come possessed of a perpetual existence. Just like the fictional Jason, a corporation can exist indefinitely, regardless of changes to its ownership. This is because a corporation is a separate legal entity from its shareholders, a fictional person, in effect, with its own rights. A corporation, in fact, enjoys all of the powers and capacities of an individual at law. A corporation can enter into contracts, sue and be sued, own assets, and pay taxes. Without the assistance of its directors, officers, and employees, however, a corporation can do nothing. It is through those individuals that a corporation operates.

"A PRACTICAL REALITY IS THAT CORPORATIONS GENERALLY HAVE EASIER ACCESS TO FUNDING THAN THE OTHER BUSINESS MODELS WE DISCUSS ABOVE."



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Corporations were created expressly to limit the legal liability of their shareholders. Corporations limit their liability to the amount of money they currently have invested in the corporation at a point in time, also known as the value of their shares. That is the extent of the liability of a shareholder. A shareholder cannot be sued for something the corporation does or does not do. This means shareholders' personal assets are generally not at risk if the corporation faces financial liability. The corporation itself is responsible for its debts and liabilities, and not individual shareholders. Shareholders elect the board of directors of the corporation, and it is they who are responsible for the management of the corporation.

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A practical reality is that corporations generally have easier access to funding than the other business models we discuss above. Corporations can issue shares to investors in exchange for money, and that money is used for business growth. There are also potential tax advantages to incorporating. While you should always speak with your accountant before incorporating, corporations are eligible for more creative tax planning options than individuals are. Generally, professionals who incorporate are exposed to a lower rate of tax when they do not draw the income from the corporation into their own hands personally. Again, however, always talk to your accountant before making any incorporation decisions.

A significant disadvantage relative to the simpler models we discussed above is the complexity of the corporate model. Corporations are subject to more legal requirements than other business structures, including creating articles of incorporation, holding annual general meetings, and maintaining more detailed corporate records. Most professionals who operate in a corporation do so with the assistance of their accountant and lawyer. And we all know how expensive they can be. As a rule of thumb, with complexity comes cost. And you have the option to develop very complex corporate structures indeed should you find the need to do so. You may find your accountant recommending strategies intended either to limit the amount of tax you are required to submit or to better prepare your corporation for succession planning, to name only two planning decisions. Corporations are by far the most flexible business model, and if your practice is such that your accountant and lawyer believe it would be beneficial for you, you should follow their advice. Be prepared, however, to pay for that flexibility.

FINAL THOUGHTS

Choosing the right business structure requires careful consideration of the legal tools at your disposal to maximize the efficiency of your business. It is definitely not a case of one size fits all. The business structure best suited to you depends on the nature and unique circumstances of your business. Those circumstances typically change over time as well. You should be prepared, therefore, to consider different options as your practice matures and, frankly, as you mature in years. You should certainly consult your accountant and your lawyer if you believe you would benefit from a limited liability partnership or a corporation. It is critical that you establish a solid legal foundation for your business. Your accountant and your lawyer have the knowledge and expertise to help you do that.



Gurinder Cheema, BA, LLB, is a member of the Law Society of British Columbia and an associate lawyer at Panorama Legal LLP.

DAYCARE DILÉMMAS AND GROOMING SALON SCARES: THE QUEST FOR HUMANE PET SERVICES **BY NICOLE FENWICK, MSc**

hile veterinary teams are busy providing essential, highquality companion animal health and emergency care under the oversight of the College of Veterinarians of BC, there is a whole world of unregulated pet care services being offered

to dog and cat guardians. In BC, dog daycare, dog walking, and pet boarding and grooming are unlicensed and not obliged to follow any particular standards or codes of practice to protect the welfare of cats and dogs. This means anyone can open a boarding facility or grooming salon, or run a dog daycare or walking service, regardless of their training, experience, and approach to animal care.

The lack of animal welfare standards for these services can result in behavioural and physical harms to companion animals that veterinarians may be familiar with. In a common scenario, a pet service client picks up their animal but does not realize their pet has suffered an injury because the business was unaware of the injury or did not inform the client about it. This results in delayed access to treatment, unnecessary suffering for the animal, and a loss of trust by the guardian in the pet service provider. It is not unusual for veterinarians to see patients with injuries that occurred while in the care of a pet service, such as lacerations from grooming procedures, bites from daycare dog fights, and heat stroke or burns from the use of unattended cage

"WHILE VETERINARY TEAMS ARE BUSY PROVIDING ESSENTIAL, HIGH-QUALITY COMPANION ANIMAL HEALTH AND **EMERGENCY CARE UNDER THE OVERSIGHT OF THE COLLEGE OF VETERINARIANS OF BC, THERE IS A WHOLE WORLD OF UNREGULATED PET CARE SERVICES BEING OFFERED TO DOG AND CAT GUARDIANS.**"

friction with neighbours and landlords. For guardians, these services can be lifesavers and can help keep pets with their families. Thankfully, there are many pet service businesses that do provide high-quality care that prioritizes animal welfare, but finding these businesses should not be reliant on trial and error.

of animals, increased concerns.

dryers. Similarly, guardians who have had negative experiences with pet services describe the use of aversive handling methods, crowding fearfulness in their pet, and pets being lost as key

The availability of humane pet services is essential for many guardians to maintain quality of life for their animals. For example, professional grooming helps maintain coat and skin health. Dog-walking and daycare provide mental and physical enrichment, in some cases helping to prevent bored dogs from barking all day at home and causing

The BC SPCA is often asked how to identify the best pet care services, and veterinarians and clinic staff are a highly trusted source for local animal services referrals. To help guardians make informed decisions, evidence-based standards for companion animal services were created with veterinary and industry input. The standards provide the foundation for education and advocacy about the benefits and risks of pet services, and resources for pet service business operators.

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The journey toward creating pet service standards began in 2019 with a survey of BC dog daycares and kennels and one-to-one consultations with pet service professionals to learn about practices and challenges directly from the industry. The standards were also informed by peer-reviewed literature and a review of 21 existing standards, including veterinary standards such as the Canadian Veterinary Medical Association's kennel and cattery codes, and the Association of Shelter Veterinarians' guidance for standards of care in animal shelters. The standards were circulated for feedback to over 30 experts, including academics, veterinarians, pet professionals, and AnimalKind accredited dog trainers. The final step was a public comment period, during which over 2,500 respondents, both pet service providers and pet guardians (91 per cent from BC), offered insights and described their experiences.

The evidence-based standards are voluntary and cover topics such as humane care and handling for cats and dogs, caregiver training, and size and composition for dog-walking and daycare groups, among many others. They also outline practices that guardians should say no to, including non-professional dental scaling services (aka anesthesia-free dentals), and aversive handling practices used to manage animal behaviour.

To provide a practical resource for animal guardians and the veterinary community, the BC SPCA also created a series of questions for guardians to ask for each of the pet care service categories to help select businesses that prioritize animal welfare. For example:

- Are humane, reward-based methods with treats and play used for animal handling?
- How and when is water provided?
- Are guardians required to provide vaccination and health information?
- How many dogs are in a daycare group and how many caregivers are supervising them?
- How many dogs does one walker have in their group?

To see the AnimalKind pet care standards and the complete list of questions, visit www.animalkind.ca. WCV

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"Dr. Elizabeth Bellavance helped us sell our practice in 2021. It was a big decision, and a long process with many facets. Thankfully, due to Elizabeth's experience, calm demeanour and good communication skills, we were able to achieve our goals. We knew she had our best interest in mind as she took the time to discuss the pros and cons of each offer. With Elizabeth's guidance, the process was less stressful, we received a higher selling price and we were confident that we got the best deal possible for our staff, clients and ourselves." Dr M

"I would highly recommend the services of Dr. Elizabeth Bellavance for those wishing to sell their veterinary practice. She managed to negotiate a deal that went well beyond our expectations. The financial windfall certainly justified the cost of her services. Her expertise and negotiating skills were indispensable for such a deal to occur...one far more favourable than what we could have achieved on our own."

"Having gone through a process of purchasing and selling a hospital with a professional (who is also a veterinarian!), we can only highly recommend this to anybody who is thinking about either. It will be money well spent. Negotiations between the sellers initially, and the purchasers subsequently, of the hospital, in the end were left to Elizabeth. Not only was this less stressful for us and a great time saver, it also vastly improved the outcome of the negotiations. Elizabeth was extremely diligent and detail oriented and worked very hard on our behalf." Dr. J

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Simmons has transacted over **\$2** Billion in veterinary practice sales

Testimonials



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3

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