

# WEST COAST VETERINARIAN

DECEMBER 2013 | Nº 13

SUCCESSFUL  
MANAGEMENT OF

## FELINE DIABETES MELLITUS



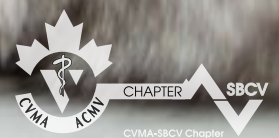
**CT SCANNER TECHNOLOGY**  
TAKING DIAGNOSTIC IMAGING  
TO THE NEXT LEVEL

**MINIMALLY INVASIVE SURGERY**

**SUMMER RESEARCH**  
AT THE WCVM AND BEYOND

**DR. HELEN KWONG**  
STU RAMMAGE AWARD WINNER

**WorkSafeBC**  
AND THE VETERINARY PROFESSION





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# from the editor

**T**he message from the CVMA-SBCV Chapter president in this issue hits the nail on the head when it speaks of the rights of veterinarians to be able to earn comfortable incomes by providing services to pet and animal owners. Being paid what you think your service is worth is a fair goal, and one veterinarians can proudly pursue.

The other side of that coin is the lifeblood of any non-profit association—and certainly it's true for our own Society—volunteers. By definition, they are not paid what they are worth; they are not paid anything. They give unselfishly of their own time, which, unlike income, is invariable. We are each limited to 24 hours in a day and likely have considerable demands on each of those hours. And volunteers donate their time for the benefit of others. All the writers in this issue of *West Coast Veterinarian* volunteer their time to provide timely, accurate, and interesting information so that our readers can advance their own knowledge. Kailee Price, a devoted volunteer since I took over as editor, writes four times a year about her own work as a student and volunteer in the veterinary community. By necessity, Kailee leaves us in 2014 as she enters a very demanding fourth year of study. We hope we will be fortunate and gain another Student Corner columnist with her enthusiasm, skill, and charm.

Balance between earning income and volunteering is achievable and is evident within the CVMA-SBCV Chapter. Seven board members toil to ensure this organization meets its members' needs. They attend meetings by phone and in person to discuss goals and strategies, to make decisions, and to shepherd the Society into its third year of existence. They are augmented well by volunteers like the CE committee, led by Dr. John Basterfield, who pulled together an admirable CE program last month, under very tight time constraints. Other volunteers staff information booths at trade shows, work at the committee level, assist with specific projects, and write articles. Without paid veterinarians working in communities, there would be no need for the Society; without able volunteers, there would be no ability to have a Society.



COREY VAN'T HAAFF  
EDITOR

## » TO THE EDITOR

Letters from members are welcome. They may be edited for length and clarity. Email us at [wcveditor@gmail.com](mailto:wcveditor@gmail.com).

## WCVM WHITE COAT CEREMONY



PHOTOGRAPHY BY DEBRA MARSHALL

**LEFT:** CVMA-SBCV Chapter Vice President Dr. Sarah Armstrong welcomes BC student Maia Aspe to her first year of study. From left to right: Dr. Tracy Cornish, CVBC; Dr. Sarah Armstrong, CVMA-SBCV Chapter; first-year student Maia Aspe of Oliver, BC, and Dr. Terri Chotowetz, Saskatchewan representative on the CVMA Council. **RIGHT:** Class of 2017 (BC).

Are you a first-year student at WCVM? Do you have some skill at writing? Want your own column in *West Coast Veterinarian* magazine?



We are looking for a student liaison to replace Kailee Price as she enters her fourth year and steps away from her student liaison position. If you have a desire to talk to other students about CVMA-SBCV Chapter activities, have a knack for writing about your activities at WCVM, and have a few hours available each month, you are the person we are looking for. Please send us an email, telling us a bit about yourself and your availability for this two-year term position ([cvma-sbcv@cvma-acmv.org](mailto:cvma-sbcv@cvma-acmv.org)). We can't wait to hear from you.

## WCV CONTRIBUTORS



**KOHARIK ARMAN, DVM**, graduated from the Atlantic Veterinary College in 2007 and entered feline-specific practice in Ottawa, ON. She moved to Vancouver, BC, in 2009 and started working at Cats Only Veterinary Clinic where she is currently employed. She also does locum work at Vancouver Feline Hospital and North West Nuclear Medicine for Animals. Koharik is a member of the Board of Directors of the CVMA-SBCV Chapter.



**URI BURSTYN, DVM**, graduated from the University of Sydney in 2007. He has been operating Arbutus West Animal Clinic in Vancouver, BC, for three years. Combining a passion for surgery and innovation, he started performing minimally invasive surgery in 2010, and in 2011 he started the Vancouver Minimally Invasive Surgery Service. In his free time he enjoys skiing, hiking, and catering to the needs of cats.



**DOUGLAS JACK** is Counsel to the national law firm of Borden Ladner Gervais. He specializes in the law as it relates to the practice of veterinary medicine. A founding and charter member of the American Veterinary Medical Law Association and the only Canadian to have served as its president, he is the author of several books and published articles and a sought-after speaker at veterinary conferences.



**SUSAN LITTLE, DVM, DABVP (Feline)**, received her BSc from Dalhousie University and her DVM from the Ontario Veterinary College, University of Guelph. She has been in feline practice since 1990 and achieved board certification in Feline Practice in 1997, re-certifying in 2006. She serves on the board of the Winn Feline Foundation and the American Association of Feline Practitioners, and is a feline medicine consultant for the Veterinary Information Network.



**AUGUSTIN MARESCHAL, DVM, DACVR**, earned his DVM from National Veterinary University of Toulouse, France. He did his Small Animal Internship at the University of Montreal, and his Veterinary Diagnostic Imaging Residency at Tufts University. He has been a Diplomate of the American College of Veterinary Radiology since 2010. He joined Canada West Veterinary Specialists in 2011. When not working, he enjoys cooking, skiing, and wood-working.



**KAILEE PRICE** is a WCV student from Surrey, BC, and the CVMA-SBCV Chapter's first student liaison. Kailee communicates the Chapter's vision and current news and events to BC veterinary students at WCV, and she also distributes our magazine to the students.



**DALE WILLERTON** is The Lease Coach and a commercial lease consultant who works exclusively for tenants. Dale is a professional speaker and author of *Negotiating Commercial Leases & Renewals For Dummies*.

# WCV

DECEMBER 2013

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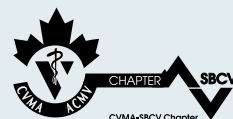
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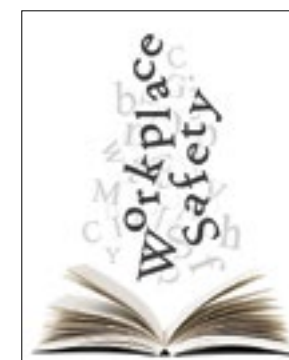
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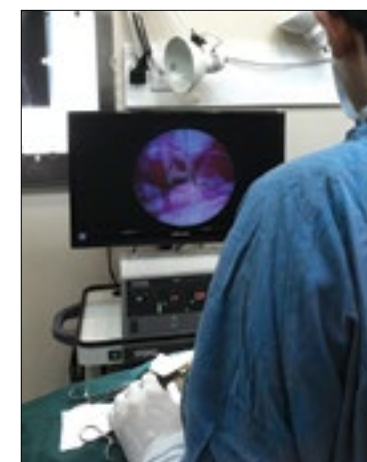


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MINIMALLY  
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SURGERY



# deceember

# cvma president's report

BY JIM BERRY, DVM

**A**s 2013 draws to a close, it is time to consider your CVMA-SBCV Chapter membership for 2014. As you reflect upon your membership decision, I encourage you to read my President's Message in the November 2013 issue of *The Canadian Veterinary Journal*, which explains the history and relevance of the Canadian Veterinary Medical Association and challenges you to imagine Canadian veterinarians without a strong national voice, without engagement, and without a credible international presence. Your support as a CVMA-SBCV Chapter member is important so that we may continue to be the influential organization that Canadian veterinarians need as our profession faces the many challenges of changing times. Your membership not only contributes to strengthening our collective voice on the national and international scenes, but also ensures the CVMA's ability to defend our profession and advance the interests of all veterinarians.

At the national level, the CVMA provides the forum to create one voice for the profession through seeking input from members, veterinary medical associations, species groups, and regulatory bodies. The CVMA represents Canadian veterinarians in key government discussions on national and international issues to ensure that important decisions that may affect veterinary practice will not be made by others without veterinary input. Our profession must be engaged in national and international issues and show leadership in areas such as antimicrobial stewardship, regulations of extra-label drug use, use of compounded drugs, and telemedicine. Canadian veterinarians must show leadership on animal welfare issues such as cosmetic surgery, euthanasia, and pain management. The CVMA is participating in the development of food animal codes of practice, and developing and maintaining the Canadian cattery and kennel codes of practice. Our two journals provide the only national platform for peer-reviewed research.

Our work-life balance and business management services, including our suggested fee guides and very competitive insurance program, are just some of the benefits and services that support the needs of CVMA-SBCV Chapter members.

We have strength in collaboration—a joint task force of representatives of the provincial veterinary regulatory bodies and the CVMA has developed a collaboration proposal which has been approved in principle by seven out of ten provinces and the CVMA, and is now being further considered by the Registrars. Most of the services we provide benefit the entire profession, and many of them serve the public, directly or indirectly. Collaboration among the regulatory bodies and with the CVMA creates efficiencies by eliminating duplication of processes and strengthens the effective flow of information and knowledge across all provinces. We are a small profession, and the proposed collaboration aims at more equal participation and contribution by all Canadian veterinarians to outcomes that benefit the entire profession and the public.

We welcome your comments and inquiries at the CVMA office. Please contact us by email, [admin@cvma-acmv.org](mailto:admin@cvma-acmv.org), or by telephone, 1-800-567-2862. Your feedback is extremely valuable to us. We look forward to you joining the CVMA-SBCV Chapter in 2014.



*Jim Berry, DVM, holds a Bachelor and Masters in Biology and a DVM from the Ontario Veterinary College. Co-owner of Douglas Animal Hospital, a full service hospital for family pets in Fredericton, New Brunswick, Jim has a special interest in rehabilitation, pain control, and orthopedics. He is Canada's representative for the World Small Animal Veterinary Association and a past-president of the New Brunswick Veterinary Medical Association. He lives in the country with his wife, daughter, and three dogs. In his spare time, he enjoys canoeing, cycling, skiing, and running.*

# cvma-sbcv chapter president's report

BY MARCO VEENIS, DVM

**F**or veterinarians in British Columbia, it's been pretty hard NOT to be aware of the negative media attention our profession has received recently. For me, it's harder still to understand what is behind this attack on our profession.

There have been hidden camera veterinary office visits, and there is now a cutely-named web site devoted to posting copies of recent veterinary invoices along with photos of precious pets.

Let me say first: no one condones a veterinarian's unprofessional conduct or misconduct. For the protection of the public, we have a regulatory body with a complaint process that does not involve an opportunity to publically post a photo of the complainant's dog, cat, or other pet. It seems incongruent to me that these two ideals—sharing photos of pets and complaining about professional practice—would go hand-in-hand. Regulatory bodies investigate, decide, and penalize on a case-by-case basis, and an opportunity for personal publicity should not colour the process.

Veterinary medicine is a noble profession. We are the vanguards of animal health and animal welfare. It is a profession that requires years of study and practice, followed by a commitment—legal and moral—to continuing education.

Veterinarians are entitled to make a good living and should not be ashamed of this. We are doctors of veterinary medicine. We invest in our profession, and for practice owners, we invest in our facilities. We keep our equipment up-to-date or, for some of us, more leading edge. We hire and train and invest in our staff. We offer fair working

conditions and fair pay. We hire locums when we take vacations.

We examine our clients' pets and animals and use science, enhanced with our knowledge and experience, to make the best recommendation for that patient, and then that client. We attend seminars and many times, have to travel to do so. We network with specialists and colleagues to keep up-to-date on trends.

We do it all for the animals. And now we are under attack for doing so, by media outlets creating a cloak-and-dagger-like atmosphere that encourages deception and pits professional against professional.

Veterinary medicine is not big-box retailing where price is king. It's not Sunday-morning garage sales where negotiating price is part of the game. It is real science supported by real education and real experience, and that comes with a price tag.



*Marco Veenis, DVM, graduated with distinction from Utrecht University in the Netherlands and practiced in Holland for nine years before moving to Canada in 1998.*

*For the past 10 years he has raised his family and run a successful small animal clinic in Kelowna. Marco enjoys the daily challenges that practice presents him with and is proud to be a member of BC's veterinary community. As an immigrant and newly minted Canadian, he is grateful for the opportunities Canada has offered him and likes give back to his community by volunteering his time for organizations like the CVMA-SBCV Chapter.*



# SUMMER RESEARCH AT THE WCVM AND BEYOND

BY KAILEE PRICE

**W**hen I embarked on my journey to become a veterinarian, I never thought I would find myself north of the Arctic Circle working in never-ending daylight and learning how to take a cephalic blood sample from a wild Arctic fox. But there I was, bundled in my warmest down jacket in the middle of the Queen Maud Gulf Migratory Bird Sanctuary in Nunavut with just three other people, 300 kilometres southeast of the hamlet of Cambridge Bay. I was given the opportunity to travel to the Arctic as part of my summer research project with Dr. Emily Jenkins at the Western College of Veterinary Medicine studying parasites of foxes across Canada.

Every year the WCVM offers funding for veterinary students to conduct research with faculty members during the summer. This year, 22 veterinary students from the WCVM received funding through the Interprovincial Scholarship Fund or the Merial Veterinary Scholars Program. In addition, one student from Uganda and another from India received funding from Zoetis to work on research projects for one month of the summer at the WCVM.

Along with conducting research, summer students also participate in a series of workshops covering topics such as how to design an experiment, how to critically read a scientific paper, and how to develop a hypothesis based on the literature. We were also required to create a scientific poster, to present at a poster day in the college at the beginning of September. This year, summer research students also attended a day-long workshop on how to share their research through writing news articles. Each student was required to write an article to be published on the WCVM Today news blog, [words.usask.ca/wcvm](http://words.usask.ca/wcvm).

Amanda Byers, a second-year veterinary student from Vanderhoof, won a first-place prize in the clinical sciences category at the WCVM student poster competition in September. She worked with Dr. Chris Luby and PhD student

Colleen Fitzpatrick, studying how many colony-forming units of coagulase negative Staphylococci were necessary to change the somatic cell count in a quarter milk sample.

“The summer project I was working on involved a lot of time on farms collecting milk samples. I really enjoyed this as it was a chance to see how different dairy farms are managed and learn about different systems,” says Byers. “Being from northern BC, my dairy farm experience was limited, so this was an excellent way to learn more about this industry.”

Third-year veterinary student Mandy Chan, from Port Coquitlam, worked with Dr. Matthew Loewen to study the effects of hCLCA1, a protein that is overexpressed in airway diseases. “This is a pilot study but could lead to further studies to develop targeted therapy for inflammatory diseases such as cystic fibrosis or chronic obstructive pulmonary disease,” says Chan.

Her project was funded through the Merial Veterinary Scholars Program. This included presenting her poster at the Merial Veterinary Scholars Symposium at Michigan State University in August. “It was a lot of fun and a great way to connect with North American veterinary students with an interest in research, just like me.” Two other veterinary students from the WCVM also attended this symposium.

Chan enjoyed her summer research experience and learned a lot from the experience. “Doing a research project introduced me to the process of scientific research and the excitements and disappointments that go along with it.”

Most veterinary students don’t start veterinary school with aspirations of launching a career in veterinary research, so the summer research program at the WCVM is the ideal way to really learn what veterinary research is all about. It’s a great opportunity for students to delve a bit deeper into an area of interest, try something different outside of clinical practice, develop interest in pursuing research in the future, and really appreciate all the hard work and trials and tribulations that go into veterinary research. [WCV](#)

“MOST VETERINARY STUDENTS DON’T START VETERINARY SCHOOL WITH ASPIRATIONS OF LAUNCHING A CAREER IN VETERINARY RESEARCH”

PHOTO BY STAGEY ELMORE



# CT SCANNER TECHNOLOGY

BY AUGUSTIN MARESCHAL, DVM, DACVR

TAKING DIAGNOSTIC IMAGING TO THE NEXT LEVEL

## CASE STUDY: FRED, TEN-YEAR-OLD MALE GERMAN SHEPHERD DOG

**F**red presented for straining to urinate and defecate with a caudal abdominal mass noted on radiographs by his rDVM. From these radiographs, the origin and resectability of this mass could not be determined. A set of thoracic radiographs from the same day did not show any significant pulmonary changes. Fred had been referred for an ultrasound.

The ultrasound revealed a large caudal abdominal mass, which did not seem to be attached to the bladder, ureter, or prostate; however the caudal aspect of the mass was not visible because it was engaged into the pelvic canal, and this area is not accessible on ultrasound in adult dogs. From this ultrasound, the mass could either originate from the caudal abdominal lymph nodes, colonic wall, or mesentery, which did not really answer our initial questions about the origin and resectability of the mass. An abdominal CT was recommended (Fig. 1).

Given that the patient was already in the scanner and we suspected neoplasia, a thoracic CT was performed at the same time (Fig. 2). The abdominal CT revealed a large well-encapsulated enhancing caudal abdominal mass, arising from the mesentery, extending within the pelvic canal. No abdominal or bone metastasis was otherwise noted. The thoracic CT revealed a few pulmonary nodules that were not visible on radiographs, probably because they were all measuring less than 2 mm (Fig. 2). The abdominal mass was aspirated while the patient was in the CT scanner, and the final diagnosis was a retroperitoneal hemangiosarcoma.

Even though Fred's owner decided to put him to sleep because of poor prognosis, CT allowed a rapid, extensive, and precise evaluation of his conditions.

**W**hile much of a radiologist's day is spent performing ultrasound, reviewing X-rays, CT, or MRI images, new CT technology has captured veterinarians' attention. Previously, a scan would produce a single-slice helical CT, but new machines are capable of performing 64-slice helical scans. Recently, our hospital upgraded from a single-slice CT scan to a 64-slice CT scan. This means that for each rotation of the X-ray tube around the gantry, 64 images are acquired instead of just a single slice. This is about the best you can get in veterinary medicine nowadays, and only a very few clinics in the world are equipped with this kind of scanner.

Thirty years ago, CT scan by itself was a revolution in veterinary medicine. The main advantage of CT over conventional radiology was the lack of superimposition, allowing a much more detailed and simple evaluation of a complex anatomical structure, such as a skull.

Nowadays, multi-detector CT scanners have taken diagnostic imaging to the next level. They have three key advantages over the old, single-detector scanners:

**FROM LEFT:**  
**Fig. 1** Caudal abdominal mass; **Fig. 2** Pulmonary metastasis; **Fig. 3** Elbow dysplasia; **Fig. 4** Osteosarcoma of the skull.



IMAGES BY NICK SHARP

## COMPUTED TOMOGRAPHY (CT)

- An X-ray tube moves around the body and continuously projects a thin fan of X-rays through the body. Electronic detectors opposite the X-ray tube continuously monitor the number of X-rays passing through the body and the angle at which the beam is being projected. The number of X-rays reaching the detector changes as the beam passes through different tissues because of the tube movement.
- A computer mathematically evaluates the data and determines the most probable density of any point within the volume of tissue scanned to be displayed on a monitor.
- Together, all of the densities make an image of the cross-section of the body through which the beam passed, referred to as a slice.
- The animal is then moved a few millimeters and the process repeated. By sequentially scanning a body area, the entire volume of interest can be imaged without any superimposition of structures. CT also has much better contrast discrimination than standard radiographs. Nevertheless, spatial resolution remains inferior to radiographs.

### SCAN SPEED

With a slice thickness of 1 mm, you can now cover 64 mm of the patient in one rotation of the tube around the gantry, instead of just 1 mm with older scanners. As a result, the need for anesthesia or sedation is markedly reduced (even sometimes eliminated). Also, the increased speed allows us to track down intravenous contrast material much more easily for detecting congenital abnormalities, or doing dynamic CTs (pulmonary thromboembolism, insulinoma, for example).

### IMAGE DETAIL

Another advantage of multi-detector CT scanners is the possibility to acquire thinner images. The thinnest slice thickness available before was 1 mm, while now we can go as thin as 0.5 mm. Given the recent improvements to multi-slice detector technology, the inherent image resolution is far better than with earlier scanners, which means that each image contains much more detail.

### ADVANCED IMAGE POST-PROCESSING

The recent technological improvement was accompanied by better post-processing software. Therefore, lesions can now be seen in different planes with the exact same amount of detail, which is really useful, for example, in elbows (Fig. 3), vascular abnormalities (such as portosystemic shunt), abdominal masses, or for complex fractures. The data can also be used to make incredible 3-D images that can be turned around in space and viewed from any angle, just as if you were holding a model in your hand (Fig. 3).

There are many indications for CT.

- **Lesions of the head or neck**, including nasal disease, regional metastasis from tumors in this region; maxillofacial trauma; dental and oral cavity disease (Fig. 4), especially for surgical planning; any neck mass like a thyroid tumor; and laryngeal masses where endoscopy would be a high risk for the patient.
- **Trauma patients** necessitating rapid imaging in unstable animals or those where it is preferable to avoid chemical restraint. It is also particularly helpful in head trauma patients with altered mentation or suspected skull fractures.

- The speed of the machine, combined with restraints such as the VetMouseTrap (an acrylic cage for cats and some toy-breed dogs), often permits **whole body scanning** without any sedation.
- **Thoracic CT** for both trauma patients and cancer patients to identify metastasis. CT detects lung lesions above 1 mm, whereas X-rays only see them above 8 mm (Fig. 2). CT can even perform virtual endoscopy of the upper and lower airways.
- **Abdominal CT** which is equivalent to abdominal ultrasound in overall lesion detection. With large breed dogs with a deep-chested conformation, CT is better than ultrasound when imaging dogs over 25 kg (Fig. 1). Using contrast during CT can also enhance lesion detection.
- **Spinal CT** to image small breed dogs with calcified disc extrusions. Newer generation

CT scanners now have much better contrast resolution, allowing more subtle lesion detection.

- **Musculoskeletal CT** including elbow CT is excellent for the evaluation of fragmented medial coronoid processes and elbow dysplasia (Fig. 3), especially with the use of multi-planar reconstruction.
- **Oncology scans** are ideal for the initial detection of a mass and to identify invasion of adjacent structures for CT-guided biopsy, in staging of local lymph node metastasis, and of distant metastasis (including the lungs, e.g., Fig. 2), and then for surgical planning.

In summary, with multi-slice CT scanners, the patient benefits from a broader range of clinical applications, with a more precise diagnosis allowing better treatment planning for a better outcome. [WCV](#)

**“THE INHERENT IMAGE RESOLUTION IS FAR BETTER THAN WITH EARLIER SCANNERS, WHICH MEANS THAT EACH IMAGE CONTAINS MUCH MORE DETAIL”**

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# WorkSafeBC

BY KOHARIK ARMAN, DVM

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he fall issue of *West Coast Veterinarian* reviewed important veterinary workplace safety recommendations based on WorkSafeBC guidelines. But now, in addition to the inherent

value in keeping workplace safety practices current, further incentive has materialized to ensure clinics are run safely. WorkSafeBC recently notified the CVMA-SBCV Chapter that by 2015 a rise in cost for provincial veterinary insurance premiums is imminent if the current trend of increasing workers' compensation claims continues.

The good news is that the veterinary profession has the capability to mitigate the impending cost hike in insurance premiums. To create a plan of action, an understanding of the structure and purpose of WorkSafeBC, and how veterinary insurance rates are determined, is necessary.

WorkSafeBC has existed, albeit under different titles, along with the Workers Compensation Act (WCA), throughout most of the twentieth century. WorkSafeBC is an independent agency, but it is based upon the WCA legislation, and all members of the Board of Directors are government appointed. WorkSafeBC's mandate consists of four central principles: promote workplace health and safety via Occupational Health and Safety (OHS) Regulations; provide access to medical care and rehabilitation for injured workers; provide fair compensation to injured workers during their recovery; and fiscally manage workers' compensation which, subsequently, protects employers from lawsuits by injured workers.

The two main sources of revenue with which WorkSafeBC funds workers' compensation are investment returns and employer insurance premiums. Investment returns are moneys obtained through the Capital Adequacy Reserve (CAR), a financial reservoir developed in 2007. The CAR's purpose is to assist industries during tough economic times by keeping employer insurance rates

low. Employer insurance premiums are moneys collected from businesses within BC. All businesses that hire workers are legally obligated to register with WorkSafeBC and contribute to workers' compensation funds.

A multi-tiered system is used to categorize industries based on various factors, but at the most differentiated level, industries are grouped with those that have similar costs with respect to workers' compensation claims. Lower-risk industries are therefore not required to subsidize higher-risk, more costly industries' insurance premiums. The goal of this organizational structure is to maintain fair and stable employer insurance rates for all businesses.

The veterinary profession, known as Veterinary Hospital or Veterinary Services within WorkSafeBC, is assigned in increasing category specification, as follows: Service sector; Professional, Scientific, and Technical Services subsector; GS rate group; and GS02 industry group. British Columbia's veterinary profession is large enough that at the industry group level, the group is composed of 100% veterinary businesses. Consequently, no other industry impacts veterinary employer premiums. Thus the profession can exert control over GS02 rates by initiating positive work safety measures within the industry.

Rate groups are assigned insurance base rates by averaging the costs of all the industry groups within each rate group. Once base rates are set for rate groups, rates for individual industry groups within rate groups fluctuate. Depending on whether their worker claims costs are higher or lower than the base rate, industry group rates are discounted or surcharged accordingly. Base rates and industry rates for each upcoming year are reassessed, based upon the three previous years' claims. For example, the base rate for 2015 will be determined in 2014 by looking at data collected from fiscal years 2011, 2012, and 2013. Industry groups may be moved into higher or lower rate groups if their costs fluctuate

more than 20% above or below their designated base rate. However, unless a consistent yearly trend of elevated or depressed Industry Group costs is noted, WorkSafeBC typically uses the CAR to cap industry rate fluctuations at 10%. This benefits individual industry groups and helps maintain consistency within the rate groups.

Historically, GS02 insurance rates had declined over the years, a favourable phenomenon that resulted from high investment returns in the CAR and stable annual numbers of workers' compensation claims. WorkSafeBC used the CAR revenue source to not only mitigate potential rate increases within Industry Groups but also, in fact, to lower rates. Nonetheless, this trend is now ending, and the veterinary profession faces a twofold disadvantage with regard to employer rates.

Unless veterinary worker claims decline significantly through the end of 2013, the profession may face one of two possible outcomes starting in 2015. The veterinary industry may either be assigned to a higher rate group in 2015, or, even if it remains in the GS Rate Group, there may still be a significant hike in the industry rate. Effectively, WorkSafeBC may decide not to contribute CAR funds and cap the GS02 surcharge at 10% above base rate.

Fortunately, WorkSafeBC reports can facilitate the development of strategies to reduce workplace accidents within BC's veterinary profession. WorkSafeBC data identified 2012 as the year in which GS02 diverged radically from the other GS industry groups. Not only did veterinary worker claims costs surpass the GS base rate by more than the 20% limit, they almost doubled it at 36%. The number of minor injury claims spiked, serious injury claims doubled, and instead of the standard one or two workers granted long-term disability payments each year, there were six long-term payouts in 2012. Over all, last year, annual claims costs jumped from \$300,000 to \$600,000.

WorkSafeBC data does reveal more than just bad news, however. The past five years of statistics identify strengths and weaknesses in workplace safety practices. There are notable trends in the data regarding who and what incur the majority of annual costs in GS02. Routinely, two aspects of workplace

injuries that contribute to WorkSafeBC's expenses are the frequency of claims, and the duration of time for which employees are on leave. Animal bite and scratch wounds constitute the majority of clinic injuries. They are high in frequency but low in severity, and so the average period of absence from work is low relative to other industries. In essence, high claims costs in the veterinary industry group are incurred due to the significant frequency with which workers' compensation claims are filed. The most prevalent personnel in the claims cost equation is the veterinary office assistant (VOA). VOA employees experience the highest frequency of injuries, followed by veterinary technicians, veterinarians, and lastly, receptionists. In accordance with trends in human medicine and other industries, workplace accidents in veterinary clinics most commonly involve employees with the least amount of training who have the most restricted skill set.

Finally the question remains: with the insurance rate system understood, and the key challenges identified, what can be

**“THE PROFESSION CAN EXERT CONTROL OVER GSO2 RATES BY INITIATING POSITIVE WORK SAFETY MEASURES”**

done to change the path that the provincial veterinary industry is currently travelling? The absence of surplus investment returns in the CAR has unmasked the real annual cost profile of injured workers in the veterinary field. Expenses incurred by WorkSafeBC on behalf of GS02 are rising rapidly, and the industry in BC will soon feel the impact of those growing costs. Injured veterinary workers return quickly to clinical work, and with the main problem being the sheer volume of claims, the most effective method of decreasing GS02 expenses will include a focus on injury prevention. Applications for grants of \$15,000 can be submitted to WorkSafeBC for aid with the development of promising safety initiatives.

This is where the real conversation begins, and the CVMA-SBCV Chapter invites you to participate. Some work safety best practices include easily accessible First Aid treatment on site and proper incident investigation. Consider bringing injured employees back to work as early as possible with modified duties. Speak with other practice owners and share best practices with them and the CVMA-SBCV Chapter. [WCV](#)



## DR. HELEN KWONG CVMA-SBCV CHAPTER MEMBER RECIPIENT OF BC SPCA'S STU RAMMAGE AWARD

**T**he BC Society for the Prevention of Cruelty to Animals has named Dr. Helen Kwong of the Merecroft Veterinary Clinic in Campbell River as the recipient of its Stu Rammage Award. Dr. Kwong received the award, named in honour of one of Canada's most dedicated animal welfare advocates, at the BC SPCA's annual awards ceremony held on May 31 in Vancouver. Dr. Kwong was presented with the prestigious award for her long-time commitment to helping animals in her community and, most recently, for rallying the community of Campbell River to take action against the sudden closure of its SPCA branch. When the municipal contract was awarded to another agency, the Campbell River SPCA was left without a shelter

and without sufficient resources to keep the branch going. Dr. Kwong immediately took matters into her own hands. She urged the community of Campbell River to take action and organized a large public rally. She made a presentation to city council outlining the negative impact the loss of the SPCA would have on animals. She gave media interviews and promoted a fundraising campaign to keep the SPCA in Campbell River.

BC SPCA CEO Craig Daniel says that with Dr. Kwong's help, it is considering options for what its new presence will look like in Campbell River. He says the Society is indebted to Dr. Kwong for taking such a strong and public stand to save the Campbell River SPCA and showing that one person can, indeed, make a profound difference. [WCV](#)

### BC SPCA COMMUNITY ANIMAL SPAY/NEUTER GRANT



The BC SPCA Community Animal Spay/Neuter Grant is a grant competition that will help communities across British Columbia address pet overpopulation. Up to \$87,500 will be distributed among successful applicants in 2014. The grants are available to registered animal charities and non-profits, municipalities, veterinarians, First Nations' governments, tribal councils, and BC SPCA branches. The deadline to apply is **February 1st, 2014**. To learn more and apply, please visit [spca.bc.ca/spayneutergant](http://spca.bc.ca/spayneutergant).



SUCCESSFUL  
MANAGEMENT OF

# FELINE DIABETES MELLITUS

BY SUSAN LITTLE, DVM, DABVP (FELINE)

# D

**Diabetes mellitus (DM)** is one of the top two endocrinopathies in cats, with a prevalence estimated to be approximately 0.5% of cats seen in private practice. Unfortunately, data suggests feline DM has been increasing in prevalence since the mid-1980s. This parallels the increase in obesity in our feline patients. The Association for Pet Obesity Prevention reports that in 2012, 58% of cats were overweight or obese. (Fig. 1) *The Banfield State of Pet Health 2012 Report* found that 40% of diabetic cats are also overweight. Other risk factors for DM in cats include sex (60–70% of cases are neutered males), age (prevalence is highest in cats over seven years), presence of concurrent diseases (e.g., chronic pancreatitis), and treatment with some medications (e.g., glucocorticoids).

The diagnosis of DM is made on the basis of classical clinical signs (polyuria, polydipsia,

polyphagia, and weight loss) as well as documentation of persistent hyperglycemia and glycosuria. Some patients will have elevations in liver enzymes at the time of diagnosis, although the complete blood count is often unremarkable. Ketonuria may be present in cats with complicated DM, although it is not associated with decreased survival time. Cats with longstanding uncontrolled DM may have peripheral neuropathy.

Stress hyperglycemia is a well-known phenomenon in cats, making it difficult to determine the true cause of hyperglycemia in some patients. In one study of sick cats presented to a university clinic, hyperglycemia was found in 36% of patients. However, upon further investigation, only 2% were diagnosed with DM. Measurement of serum fructosamine is helpful in this situation, as is home measurement of urine glucose.

Our understanding of the risk factors, pathogenesis, and treatment options for feline diabetic patients has improved dramatically in the last 10–15 years. A recent study showed that cats with newly diagnosed DM have a fair-to-good prognosis, with 46% living longer than two years.

Successful management of cats with DM includes four important goals of treatment: minimize clinical signs, improve quality of life,

prevent complications, and achieve a non-insulin dependent state when possible. In newly diagnosed patients with uncomplicated DM, these goals can be accomplished by attention to five key action items:

## 1. IDENTIFY AND ADDRESS COMPLICATIONS & CONCURRENT DISEASES

At the time of diagnosis, as well as while monitoring diabetic patients, care should be taken to identify concurrent problems that could influence response to therapy or prognosis. For every patient, ensure you have taken a good medical history, performed a thorough physical examination (including blood pressure assessment), and obtained a minimum database (complete blood count, serum chemistries, total T4, fPLI, urinalysis, and urine culture).

The most common concurrent problems are infections, especially in the oral cavity and urinary tract. In fact, 10% or more of diabetic cats have urinary tract infections even when the urine sediment is inactive. Therefore, urine culture should always be part of the diagnostic plan.

Insulin resistance is defined as an insulin dose >1.5 U/kg or 6 U/dose. Common causes are bacterial infections and concurrent diseases, such as

hyperthyroidism, chronic kidney disease, inflammatory bowel disease, pancreatitis, and neoplasia. A thorough evaluation should be made to identify and, when possible, treat any concurrent diseases. High serum creatinine concentration at the time of diagnosis of DM has been associated with a poor outcome, likely because it is linked to chronic kidney disease. Acromegaly is an uncommon disease associated with severe insulin resistance in cats.

## 2. DESIGN A WEIGHT MANAGEMENT PLAN

Obesity is strongly linked to DM in cats as it causes insulin resistance and changes in glucose tolerance. Many diabetic cats are overweight or obese at the time of diagnosis although they have a history of recent weight loss. Fortunately, the insulin resistance induced by obesity may be reversible with appropriate weight loss. A nutritional assessment should be performed for every diabetic cat in accordance with guidelines published by the American Animal Hospital Association and the World Small Animal Veterinary Association. The feeding management plan includes a specific dietary recommendation as well as a plan to modify the cat's environment to increase activity and provide enrichment. A few diabetic patients

**FIG. 1** Obesity is strongly linked to a risk of developing diabetes mellitus in many species, including cats.

**FIG. 2** Canned diets are typically lower in carbohydrate concentration and higher in water content than dry diets.

**FIG. 3** Veterinary technicians can teach owners how to perform blood glucose testing at home using a drop of blood from the ear margin.

**FIG. 4** Owners should monitor diabetic cats for water intake, as well as appetite and urine production.

FIG.1



FIG.2



FIG.3



FIG.4



# “CATS WITH NEWLY DIAGNOSED DM HAVE A FAIR-TO-GOOD PROGNOSIS, WITH 46% LIVING LONGER THAN TWO YEARS”

are underweight at the time of diagnosis, and they also require a nutritional assessment and a plan to achieve normal body weight.

### 3. USE SPECIFIC DIETARY THERAPY

Overweight or obese diabetic patients should be on a weight management diet and meals should be portion-controlled. Frequent monitoring and adjustment of the feeding plan is needed to achieve safe and effective weight loss. As many of these patients lose weight, their need for insulin decreases, so close monitoring for dose adjustment is required to avoid hypoglycemia.

Normal or underweight cats can be fed a high-protein, low-carbohydrate diabetes management diet (e.g., Purina DM Dietetic Management, Hill's Prescription Diet m/d, Royal Canin Diabetic). Canned formulations typically have lower carbohydrate concentrations than dry

diets and provide increased water intake as well. (Fig. 2) Normal weight cats should also be fed in a portion controlled manner to avoid weight gain, while underweight cats can be fed free choice. The timing of insulin injections relative to meal times is probably not important for feline patients. Since cats normally eat several small meals during the day, post prandial hyperglycemia is not an important problem for regulation of DM in cats.

### 4. START INSULIN THERAPY PROMPTLY

One of the first questions owners of cats with DM ask is whether lifelong insulin treatment will be needed. Patients most likely to achieve remission share these common factors: they are newly diagnosed, they have no concurrent diseases causing insulin resistance, the owner is able to achieve good glycemic control, and they are fed a diabetic management diet.

Diabetic remission is typically defined as the ability to maintain normal blood glucose (BG) without insulin for at least four weeks, without the reappearance of clinical signs. If diabetic remission occurs, it is most likely within the first four to six months of treatment in cats with good glycemic control. Trying to control DM with diet alone or with oral hypoglycemic medications and delaying the start of insulin therapy markedly reduces the chance of remission. The type of insulin used for the best chance at achieving remission may be less important than instituting therapy as soon as possible and having a plan for close monitoring. The duration of remission is highly variable, and unfortunately at least 25% of cats that achieve remission subsequently become overtly diabetic and must receive insulin again.

Most human insulins are 100 units/mL (U100), and 3/10 cc (0.3 mL) micro-fine or ultra-fine U100 syringes should be used for those products. However, veterinary insulins (e.g., Caninsulin, ProZinc) are 40 units/mL (U40), and U40 syringes

must be used. It is critical for veterinary staff and owners to be aware of the concentration of the insulin being used for a given patient and to use the correct syringes for the insulin in order to dose accurately and safely.

While no true feline insulin is available commercially, there are products available that provide excellent therapeutic control (Table 1).

One important caveat is that compounded PZI insulin should be avoided. One study of twelve compounded products found that only one met product specifications. It is difficult to predict in advance which insulin is best for each patient, so clinicians should be familiar with at least two types of insulin appropriate for treating cats. The critical factor for insulin potency and duration of action is absorption. One factor affecting insulin absorption is the choice of injection sites. The intrascapular area may be the easiest site for teaching owners to give injections, but it has less blood supply and is more prone to fibrosis than the lateral abdomen, lateral thorax, or the flank area. As soon as owners are comfortable giving injections in the intrascapular area, encourage them to move the injection site.

The typical starting dose of insulin regardless of type is 0.25–0.5 U/kg BID (often 1–2 U/cat, BID) based on lean body weight. Use the higher starting dose for cats with initial blood glucose >20 mmol/L. The appropriate maintenance dose for each patient will be the dose that controls

clinical signs, but maintenance doses >1.5 U/kg are uncommon. Due to the unpredictability of the individual response to different insulins, it is important to be conservative when selecting insulin doses, either initially or when switching a cat from one type of insulin to another.

Once a newly diagnosed diabetic cat has been thoroughly evaluated and started on insulin therapy, recheck the patient in one week. At that time, evaluate weight and body condition score, clinical signs, and owner compliance with the therapeutic plan. A blood glucose curve (BGC) can be performed in the clinic, or in some cases, it may be obvious that a dose increase is necessary without performing the BGC. This is also a good time to introduce the concept of home blood glucose measurements for clients that are interested and able. Veterinary technicians are the best team members to teach owners how to take blood glucose measurements at home and familiarize them with the equipment and techniques. (Fig. 3) Human glucometers are readily available and inexpensive, but they are calibrated for human blood. Over- and under-estimates of blood glucose can occur due to a different distribution of glucose between plasma and red blood cells. Therefore, it is useful to calibrate a client's glucometer against the clinic's in-house chemistry analyzer by comparing blood glucose measured on the same sample. Glucometers calibrated for feline use are more accurate



TABLE 1 COMPARISON OF INSULIN PRODUCTS

INSULIN	LICENSED IN CATS	MANUFACTURER	FORMULATION	MEDIAN MAINTENANCE DOSE*
PROZINC	Yes	Boehringer Ingelheim Vetmedica	U40 recombinant PZI	0.6 U/kg, BID
CANINSULIN	Yes	Intervet / Schering Plough	U40 Porcine zinc	0.5 U/kg, BID
LANTUS	No	Sanofi Aventis	U100 Insulin glargine (recombinant human analog)	2.5 U/cat, BID
LEVEMIR	No	Novo Nordisk	U100 Insulin detemir (recombinant human analog)	1.75 U/cat, BID

\*Based on lean body weight

(e.g., AlphaTRAK, [www.abbottanimalhealth.com](http://www.abbottanimalhealth.com)) and use small blood volumes, although they are more expensive.

At the two-week visit, once again evaluate weight and body condition score, clinical signs, and owner compliance as well as the results of a BGC (performed at home or in the hospital). Performing a BGC is more reliable than spot-check-

ing blood glucose, but interpretation must always be in light of what the patient and owner are telling you. Due to day-to-day variation (and even night-to-day variation), it is often better to evaluate a series of BGC performed over several days rather than a single curve. Re-evaluations are then performed weekly until the patient is stabilized. Targets for blood glucose are a daily average

of 6–14 mmol/L and a nadir of 4.5–8 mmol/L. Dose adjustments should be 0.5–1.0 U and should not be made more often than about seven days apart. Perform a BGC within one to two weeks of making any change. Typically, it takes eight to twelve weeks to stabilize newly diagnosed diabetic cats.

Cats are unique in that their DM may be transient or intermittent, necessitating careful ongoing monitoring. This is best accomplished

by regular veterinary visits (every three to four months) to evaluate clinical signs (preferably from a diary kept by the owner), body weight and condition, and periodic assessment (every three to six months) of a minimum database (CBC, chemistries, urinalysis). Additional evaluation tools include serum fructosamine and BGC (performed in the clinic or by the owner at home). BGC are most valuable at certain time points: during stabilization, when signs of hypoglycemia are noted, one to two weeks after any insulin dose change, and when any signs of poor glyce-

mic control are noted. Owners should be particularly vigilant for clinical signs of hypoglycemia, which may be subtle in the early stages (e.g., lethargy, mild ataxia). Knowing how to check their cat's blood glucose can help identify hypoglycemia. The insulin dose should be decreased by 25–50% and the cat should be monitored closely for remission. It's not possible to do BGC in all patients, either due to owner constraints or the temperament of the cat. In those cases, the owner's observations (clinical signs, appetite, behaviour, etc.) and home monitoring of urine glucose (e.g., Purina Glucotest Feline Urinary Glucose Detection System litter additive) can be combined with periodic physical examinations and a minimum database including serum fructosamine. Urine glucose measurements are best used to monitor trends over time as well as impending remission or return of hyperglycemia. Insulin doses should be more conservative in these patients, and they may be less likely to achieve good glyce-

#### 5. INVEST IN OWNER EDUCATION

Providing owner education is a critical component of successful management of feline diabetic patients. Encourage your clients to control their cat's diabetes sooner rather than later, to refrain from changing insulin dosage without veterinary consultation, to make insulin treatment a positive experience for the cat, to monitor the cat's condition for any changes by keeping a home log of appetite, water intake, etc. (Fig. 4) An informed owner is better able to understand optimal disease management. [WCV](#)

*References available upon request.*

# TERMINATION WITHOUT LITIGATION

## A PRIMER ON EMPLOYMENT LAW RISK MANAGEMENT

BY DOUGLAS C. JACK, LL.B.

**T**he need or desire to terminate the employment relationship with hospital staff—both professionals and lay staff—arises in many contexts: to react to the latent compromising effects of the 2008 economic downturn; the re-tooling of the clinic by abandoning the morale busters within your current staff; the requirement to ensure that professional veterinary services are performed by competent individuals. Regardless of the reason for dismissing an employee, the process is often enveloped in the angst of the employer arising from the uncertainty of the legal obligations that must be discharged. Claims for wrongful dismissal continue to be the subject-matter of advice-seeking practice owners and wounded employees alike.

#### THE OBLIGATION

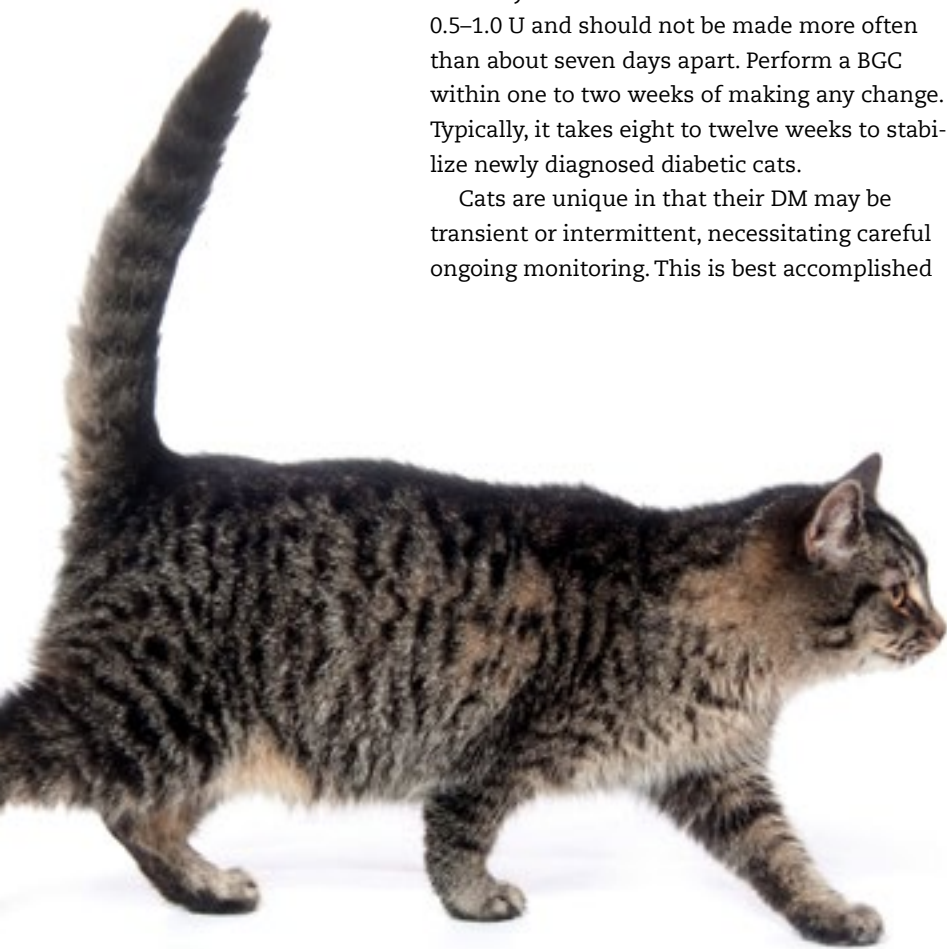
In truth, the legal obligations of employers in connection with the termination of employment of an employee are relatively straightforward: the employment of an employee can, subject to the provisions of an employment contract and in the absence of just cause for dismissal, be terminated at any time, provided that the employer provides reasonable notice of termination or payment in lieu of such notice. This statement of the legal principles deserves some further commentary.

#### JUST CAUSE

You will be aware that the employment of an employee can be terminated at any time so long as the employer has just cause for dismissal. The courts have defined just cause as including dishonesty (usually theft from the clinic), insolence, incompetency, chronic drunkenness, and physical abuse, all giving the employer legal justification to terminate the employment arrangement without notice and without payment of any termination compensation. In most cases, a single, isolated act of incompetence or insolence would not amount to just cause; rather, in those cases, the employer would be required to alert the employee to the specific conduct that was inappropriate, provide instruction on how to avoid a recurrence of the conduct, and issue an unequivocal warning that any repeated conduct will result in immediate termination. As such, the likelihood that a practice owner would have just cause for termination is relatively remote—the immediate termination of the engagement without notice is reserved for only the most egregious cases of misconduct.

#### REASONABLE NOTICE

Assuming that just cause for dismissal does not exist, the obligation of the employer is to provide the employee with reasonable notice of termination or payment in lieu of such notice (the amount of the payment being equal to



## “THE ART OF TERMINATION THEN IS BASED UPON DETERMINING WHAT CONSTITUTES REASONABLE NOTICE”

the regular compensation the employee would otherwise be entitled to receive during the reasonable notice period). The art of termination then is based upon determining what constitutes reasonable notice.

### LEGISLATIVE MINIMUM NOTICE

The minimum amount of notice that an employee of the clinic is entitled to is set out in British Columbia's Employment Standards Act—legislation that deals with a number of issues governing the employment relationship including the termination thereof. Section 63 of the Act dictates a formula for determining how much payment or notice is required depending on the length of service. If the employee has been engaged for less than three months, then no notice is required. If the engagement has been for more than three months but less than twelve consecutive months, then one week's notice or payment is required. For employment that is more than twelve months but less than three years, the minimum notice or payment is two weeks. If the term of employment is more than three years, then an amount equal to three weeks' wages plus one additional week's wages for each additional year of employment up to a maximum of eight weeks' wages must be paid or like notice provided. The legislation also permits a combination of payments and notice.

Obviously, no payment or notice is required for the termination of the employment resulting from the employee's resignation (see sidebar), retirement, or dismissal for just cause.

### THE TRAP FOR THE UNWARY

The prudent practice manager or owner will understand that the legislative formula represents the minimum standards only; section 118 of the Act provides that the legislation does not affect a person's right to commence any form of court action that he or she might otherwise have been entitled to. Under common law principles, the employee could still commence an action for wrongful dismissal based upon the precedents established by the courts over many decades with respect to determining what constitutes

reasonable notice of termination. In this regard, the leading cases have determined that in establishing what constitutes reasonable notice, one must look to a number of factors: the age of the employee, his or her seniority, the ability of the employee to secure alternative employment, the nature of the job performed by the employee, and the circumstances under which the employee was first hired. By way of example, an older employee with many years of service in a senior, responsible position would be entitled to more notice than a younger, short-term employee. Despite a relatively short engagement, an employee who was lured away from an otherwise sound position would be entitled to greater notice.

Generally speaking, in determining what constitutes reasonable notice of termination one can be assured that the common law notice normally exceeds the minimum notice established by legislation. Prior to proceeding with the termination protocols, it will be important for the practice owner to seek the opinion of legal counsel as to what would meet the legal obligations under these principles.

### THE TERMINATION PROTOCOL

With the rules noted above, the employer is at liberty to terminate the employment of the employee by merely adhering to these principles. The following represents an appropriate list of considerations:

The employer must first determine whether or not this is a case of employee rehabilitation or termination. It may be that unacceptable conduct can be corrected for the benefit of both parties.

If termination is required, then one must determine the amount of notice required to meet the reasonable standard; in most cases (in the absence of an employment agreement containing contrary provisions that do not contradict the legislative minimum standards), the quantum of notice will be the common law requirement of approximately one month per year of employment.

The employer must make a decision about whether the matter will proceed by way of notice

## WRONGFUL RESIGNATION

Practice owners often bemoan the fact that they are required to give lengthy periods of notice or large payments in settlement of employment claims when they wish to terminate the engagement. They complain that, “When I want to fire someone, I need to pay big bucks, but the employee can resign any time, leaving me in a real mess with insufficient staff. Seems entirely unfair! Where's the justice?”

Employers can take heart in some recent cases where employees who fail to give reasonable notice of leaving the job can be accountable in claims of wrongful resignation; that is, the failure to give adequate notice of leaving the position. The courts are still establishing the appropriate precedents but are leaning towards findings of contract breaches arising from the failure to provide notice. The cases seem to be suggesting that employees owe a similar duty to their employers to provide a reasonable level of notice, although the amount of notice is likely less than that of an employer providing notice of termination.

or by making a payment in lieu of notice or some combination thereof—most employers will opt to provide a termination payment so as to avoid having to police an unhappy employee who is engaged under working notice.

An exit interview must take place wherein the employer advises the employee of the termination, presents a reasonable proposal for discharging the legal requirements, and gives the employee an opportunity to consider the proposal with his or her legal advisors for acceptance in exchange for a written Release of liability. The Release then acts to prohibit the employee from any further legal proceedings against the clinic and its ownership.

The practice owner and employee should be aware of the legal principles governing these issues in order to proceed with an effective and litigation-free termination of the employment relationship. A good deal of time, monetary expense, and stress will be avoided if the appropriate protocols are implemented. [WCV](#)



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# BC SPCA CONSULTS WITH VETERINARIANS ON NEW STRATEGIC PLAN

Approximately 40 veterinarians attended a session hosted by the British Columbia Society for the Prevention of Cruelty to Animals (BC SPCA) during the CVMA conference held in July 2013 in Victoria, BC. The BC SPCA is currently drafting a new strategic plan and wanted to hear directly from veterinarians about what the Society's priorities should be over the next five years.



Two questions were posed to veterinarians at the session: How can the BC SPCA be most effective in improving animal welfare in BC, and what opportunities exist for further collaboration between the BC SPCA and veterinarians?

The discussion focused on two topics: spay and neuter programs and other low-cost veterinary services, and the BC SPCA's cruelty investigations work.

Key themes that emerged from the discussions included:

- Work together to address social attitudes that prevent people from spaying and neutering their pets
- Remuneration for veterinarians doing spay and neuter surgeries
- Address and potentially remove barriers to increased access to veterinary services in communities
- Collaboration to address benefits and drawbacks of the BC SPCA providing (or not providing) municipal animal control services

- An interest in addressing issues of irresponsible breeding
- Opportunities for vets and the BC SPCA to collaborate to improve kennel code standards
- Increase training for veterinarians to deal with/report animal cruelty
- Veterinarians believe that the BC SPCA should increase constables or train RCMP for cruelty investigations

Overall, veterinarians expressed a willingness to partner and communicate more in the future on issues related to increased access to veterinary services, spay-neuter programs, breeding standards, municipal services and training related to animal cruelty investigations.

Results from the BC SPCA's recent public survey were also presented at the session. A total of 7,426 people responded to the survey, and of these, 80 were veterinarians. When asked to rank their top five priorities for animal welfare, here is how members of the public and veterinarians responded:

## PUBLIC AND VETERINARIANS TOP FIVE ANIMAL WELFARE PRIORITIES

RANK	PUBLIC (VOTES)	VETERINARIANS (VOTES)
1st	Animal cruelty investigations (5493)	Animal cruelty investigations (57)
2nd	Reducing pet overpopulation including spay & neuter programs (4183)	Sheltering of animals (52)
3rd	Sheltering of animals (3395)	Reducing pet overpopulation including spay & neuter programs (50)
4th	Advocating on issues that impact the welfare of animals (3260)	Advocating on issues that impact the welfare of animals (45)
5th	Raising standards for the care and treatment of animals raised for food (2910)	Increasing adoptions (31)

This summary prepared by Erica Mattson, Stakeholder Relations Officer, BC SPCA.



# NEGOTIATING FOR LEASEHOLD IMPROVEMENTS ON YOUR COMMERCIAL LEASE

## *A Guide For Veterinary Tenants*

BY DALE WILLERTON

**W**hen it comes to negotiating your commercial lease as a veterinary tenant, there are many factors to consider. Among these factors is the leasehold allowance. This is defined as the amount of money a landlord may provide to a tenant for improvements. Commercial tenants may improve the property in whatever manner they wish, with the landlord's permission. It is the allowance which is negotiable. The landlord provides the allowance and recovers it as a portion of the rental rate during the tenant's lease term. Tenants must also consider whether they will be provided a tenant allowance (also known as TI money) from the landlord.

Building out a veterinary clinic can be costly for the veterinary tenant, and there are a number of valuable leasing incentives that these tenants should negotiate on when they are entering into a new lease agreement and even a lease renewal.

### HERE ARE SOME POINTS TO CONSIDER:

1. **TENANT ALLOWANCE** A tenant allowance is inducement money paid by the landlord to the tenant. The tenant uses this money to offset the cost of building walls, painting, and any leasehold improvements that need to be done to the premises. This does not, typically, include any money the tenant spends on fixtures or equipment. The tenant's allowance money typically does not need to be repaid to the landlord (it is an inducement).
2. **LANDLORD'S WORK** Rather than pay a tenant allowance to a tenant, it is not uncommon for the landlord to use his own money to at least partially turnkey the premises for the veterinarian tenant. This is especially common if the landlord owns a construction company and has staff who does that type of work. When negotiating for either a tenant allowance or landlord's work, the following four points are well worth considering:
  - a. The more money you want the landlord to kick in, the more prepared you need to be. A veterinary tenant should get a preliminary design and construction cost prepared to show to the landlord and negotiate for the maximum allowance we can get. Seeing is believing for the landlord—legitimate quotes on contractor letterhead go a long way.
  - b. The leasehold improvements always cost more than initially expected. You do not want to come up \$30,000–\$40,000 short. It pays to get multiple quotes starting from a single design company.
  - c. Before you get three or four weeks into the leasing process with a particular landlord, it

makes sense to ask the landlord or their leasing representative what their inducement package includes. Some landlords have a standard allowance that they give to almost any tenant. There are several strategies which can frequently, effectively, double that allowance for a tenant—the key is to try to keep the rental rate down while increasing the allowance.

- d. There are many types of landlords: some are flush with money and can contribute 100% of your leasehold improvements, while others may provide a tenant with a more limited amount of tenant allowance money. If you are not afraid of a slightly higher rental rate, it is possible to get the landlord to completely pay for all your leasehold improvements.

Keep in mind that negotiating for the maximum lease inducement package can make all the difference in the world to a start-up business or tenant. Far too often, business owners approach the leasing process timidly, almost as if applying for the privilege of paying the landlord rent. Consequently, they leave a lot of inducements and incentives on the bargaining table.

It's also important to understand how the landlord pays you the tenant allowance. Tenants often mistakenly assume the landlord pays that money as soon as the deal is signed and before construction is started. This, however, is rarely the case. In most cases, you are reimbursed after you meet a number of conditions, including opening for business and proving that you have paid the contractors. To play things safe, have some short-term financing in place to carry you through if you're relying on the landlord's contribution to your build out. It's also possible to negotiate for some of the allowance up front in certain cases.

Remember, you're not going to get more than you ask for. [WCV](#)

*The author acknowledges the assistance of Jeff Grandfield in writing this article.*



# MINIMALLY INVASIVE SURGERY

BY URI BURSTYN, DVM

**I**magine you are a patient about to undergo a surgical procedure, and the surgeon offers you some choices: Would you like a 5 mm incision, or sternum to pubis? Would you prefer to have a Balfour retractor jammed in your abdominal muscles for an hour, or would you say, “No, thank you” to that proposition? How about a Finochietto retractor between the ribs? Pass? Would you like to go home after we’re done, or spend a few days enjoying strict exercise restriction in the hospital?

For most of us, these are fairly easy questions to answer, and that is why the vast majority of abdominal, urologic, and thoracic procedures done in humans are done using some version of minimally invasive surgery (MIS). The idea is simple: minimum trauma for maximum gain. MIS is a broad term that includes chest and abdominal procedures (thoracoscopy and laparoscopy), arthroscopy of joints, and new methods of locking plate osteosynthesis. What they all have in common is that they utilize advances in imaging and instrumentation to turn traumatic, invasive procedures into innocuous daytrips to the hospital.

A number of general practices in the US were the first to offer MIS towards the end of the last decade. Unfortunately, the lack of academic interest, the scarcity of training programs, and the high entry costs have prevented widespread adoption of this modality. In fact, a well-publicized series of studies in the 90s showed that medical students outperformed residency-trained surgeons when first introduced to laparoscopic equipment, firmly establishing MIS as a skillset distinct from traditional open surgery and ensuring the slow adoption of MIS in the human field, as well as the veterinary field. Currently MIS is not part of any veterinary college training requirement. In recent years, internal medicine specialists have been driving the adoption of laparoscopy to collect liver, intestinal, and pancreatic biopsies. A variety of other procedures, from cholecystectomy to lung lobe biopsy, have also been recently described.

While there is some overlap in applications and instrumentation between MIS and

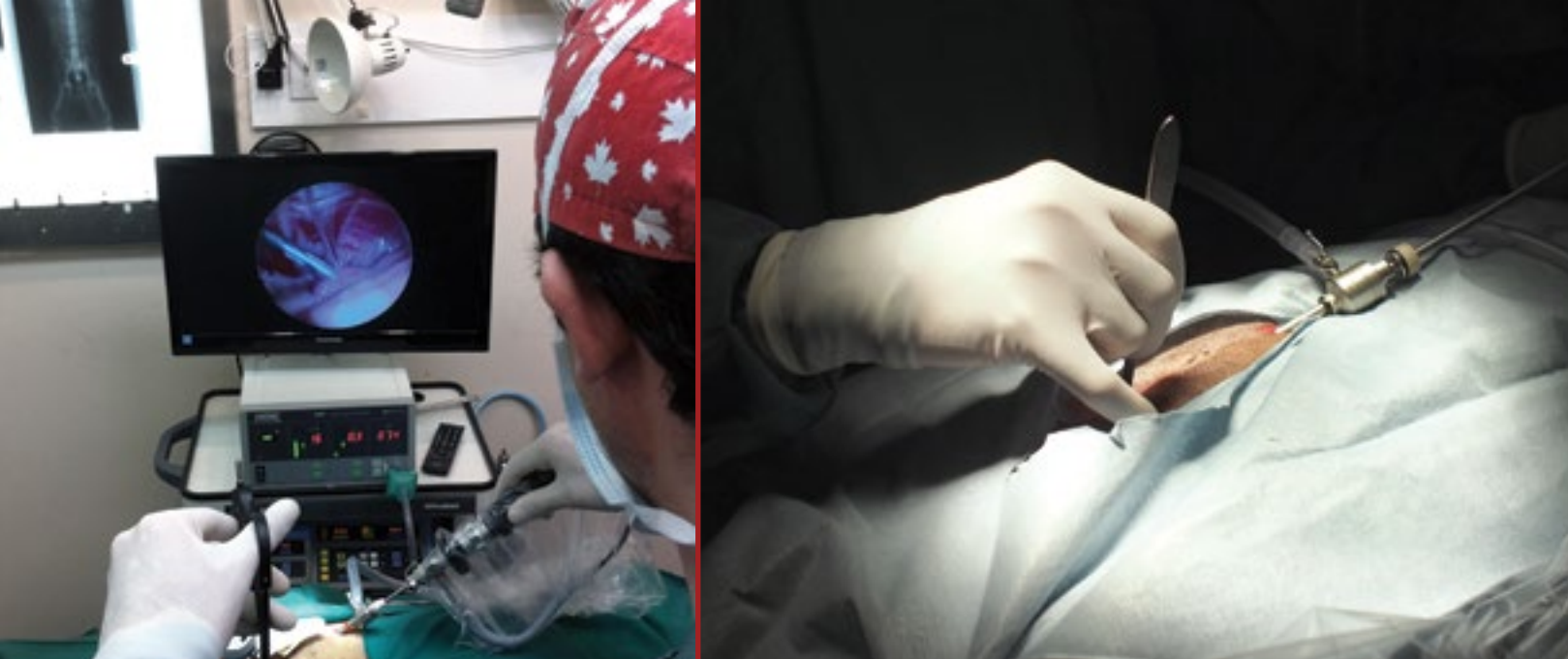
endoscopy, the latter makes use of natural body orifices while the former relies on surgical approaches, and they are treated as two distinct disciplines by most authors.

So, less pain, lower infection rates, less blood loss, fewer adhesions, and same-day hospital releases, but what can you actually do with it?

One of my patients, a Nova Scotia Duck Tolling Retriever named Sydney, showed anorexia and elevated liver enzymes and bile acids on her pre-anesthetic lab work. An ultrasound didn’t show anything interesting, so we went ahead and did a laparoscopic liver biopsy (and spayed her, while at it). Her owner called me the next day to say, “She’s acting like nothing happened.” I guess the two 5 mm incisions weren’t bothering her too much, but the diagnosis, juvenile hepatic fibrosis, wasn’t great: nine-month mean survival time. Two years later, she is fat, happy, and almost off medication. Usually a definitive diagnosis of this disease is made on a post-mortem, or an open biopsy, which owners tend to consent to only when things are dire. By being able to establish a definitive diagnosis early on, we were able to treat aggressively and without second guesses, and produce a superior clinical outcome.

Of course, this is just one case, but over the last two years of using laparoscopic and thoracoscopic approaches, we have become used to seeing patients beat the odds. In my opinion, the key to success in these cases is client consent.

Please consider; how sick does an animal have to be for the average client to consent to an open exploratory or to remove that recurring urolith for the third time? How often do clients express concern about side effects and how often do you refrain from the most aggressive treatment option because you don’t have a definitive diagnosis and are trying to do no harm? How often does an ultrasound show that a cat has IBD, but is it lymphocytic or eosinophilic? Or a small cell LSA? Ultrasound is an essential tool in modern medicine, but if you do a pubmed search, you will find that the correlation between the ultrasonographic and real diagnosis for liver disease is not what we would like it to be. Sadly, many patients receive sub-optimal treatment for the lack of a



**ACTION SHOT:** The instruments on screen are the tips of what's in my hands. Recovering the stone (left); Placing trochars (right). Surgeon at work (previous page).

**“BY BEING ABLE TO ESTABLISH A DEFINITIVE DIAGNOSIS EARLY ON, WE WERE ABLE TO TREAT AGGRESSIVELY AND WITHOUT SECOND GUESSES”**

biopsy, or other invasive intervention.

Clients find the idea of a 3–5 mm incision much more palatable than a stem to stern laparotomy, and patients get the clinical benefit of a procedure with less pain, less blood loss, and lower infection rates. This translates into a high acceptance rate for MIS procedures and improved clinical outcomes.

I mentioned uroliths. This is currently my favorite surgery. Studies show that 15% of stones are missed on cystotomy by experienced surgeons. Anyone who has had to rifle through irritated, corrugated bladder epithelium looking for grit won't be surprised. With a trans-abdominal approach, we see the bladder, distended by saline, through a scope that has the lighting and magnification of a surgical microscope. Flakes as small as 1 mm are obvious and easy to remove, and there are two cruciate sutures in the bladder wall at the end of the procedure. With stones >5 cm, the benefits of this approach are less clear, but I can't think of a good reason to remove smaller uroliths any other way.

Patient size is not a limiting factor. Our smallest patient was a 650 g Chinchilla (removed proximal urethral calculi with a laparoscopically assisted approach), and we routinely spay 1.5–2 kg dogs and cats.

Laparoscopically assisted gastropexies are one of the most common reasons for referral. We often perform them in conjunction with a spay (by the way, those dreaded mature giant

breed spays are much easier and safer when done laparoscopically), but their true value is in getting predisposed males pexied. Not something many clients agree to normally. Another example is lung lobe biopsies; they just don't get done if sternotomy is the only option.

The most common concern I hear about MIS is the myth that retained gas can cause increased abdominal pain. This rarely occurs in humans, where an upright posture means that a gas bubble could press on the phrenic nerve and cause a cramp, and it is very unlikely in our patients as they do not walk upright. Furthermore, no one who has actually seen an MIS procedure can doubt that getting the gas to stay in the abdomen is one of the biggest challenges of the surgery.

MIS has its limitations, and traditional surgery will always have a role to play. Visualization is the primary challenge of MIS, which means ultrasound and laparoscopy go hand in hand. An ultrasound helps plan where to look, whereas the scope is far more accurate at localizing lesions, and there is no replacement for a surgical biopsy. Assessing a liver mass prior to lobectomy, fixing a PSS, or removing an intestinal foreign body with a pull-through technique are prime examples of this.

I have yet to see a colleague who is not impressed by the outcomes of MIS. I believe that given time and education, laparoscopy and thoracoscopy will become a routine part of veterinary practice. **WCV**

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