

Letters to the Editor

Remember the ACZM

Given the ever increasing interest in zoological companion animals (or exotic pets), among both pets owners and the veterinary profession alike, it was a pleasure to see two major *JAVMA* News articles focusing on exotic companion mammals, reptiles, and amphibians.^{1,2} Katie Burns is to be congratulated on bringing these species to the attention of the profession as a whole. However, we noted with some regret that there appeared to be a serious omission in that both articles suggest that the American Board of Veterinary Practitioners is the only AVMA body that certifies veterinarians as specialists in the fields of exotic mammals, reptiles, and amphibians. I would humbly like to remind *JAVMA* readers that the American College of Zoological Medicine (ACZM) has been certifying specialists in zoological medicine, which includes exotic mammals, reptiles, and amphibians, since 1983. There are more than 150 ACZM diplomates, many of whom have been, and continue to be, pioneers in the field of zoological companion animals, both nationally and internationally. Also, in 2011, the ACZM began offering a certifying examination specifically in zoological companion animals, which focuses on companion species of exotic mammals, reptiles, amphibians, and birds. The ACZM certification provides specialist recognition in all zoological companion species, which may be desirable for exotic pet practitioners who see multiple taxa. Complete details of the ACZM credentialing and certification process are available at www.aczm.org.

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1. Burns K. Our other furry friends. *J Am Vet Med Assoc* 2014;245:10–14.
2. Burns K. Befriending reptiles and amphibians. *J Am Vet Med Assoc* 2014;245:152–157.

Dispute benefits of onychectomy

As representatives of an organization dedicated to improving the health and welfare of cats, we were greatly concerned when we read a recent letter to the editor¹ that seemed to imply that declawing may provide certain benefits to cats, such as reducing the chance that cats would be punished futilely because of objectionable scratching behavior, making it easier to examine and treat cats without the need for severe restraint or sedation, and making it more likely that cats would receive better care in the veterinary clinic.

A literature review² released by the AVMA on the welfare implications of declawing domestic cats does address the potential benefits of declawing for both cats and their owners. Although these proposed benefits can be debated, the document provides a thorough review of the currently available scientific data on this procedure.

It is important to realize that most cats, and often most other animals, are simply scared or in pain while at our practices, especially those that are considered difficult to examine or treat. How we approach and handle them will escalate or de-escalate the situation. If veterinarians and practice team members are not well trained on how to properly handle these animals, there is the potential for injury. Cats are no exception, and we strongly recommend that all staff members

at any practice that treats cats be well educated on feline behavior and feline-friendly handling so as to create a better experience for the cats, their owners, and the veterinary team. Even declawed cats, if not handled properly, can bite. This does not give us the right to recommend elective amputations (or extractions) and call it a benefit to the animal.

We object to the suggestion that cats without claws would receive better veterinary care. Examining and treating cats with claws does sometimes present unique challenges, but then so does examining any other species with claws or teeth. Every animal has defense mechanisms it uses when it feels threatened or scared, and cats are no exception. We, as professional animal caregivers, have the responsibility to be knowledgeable in proper handling of the animals we are treating regardless of whether it's a 100-lb dog or a 10-lb cat.

There are many well-written articles, books, brochures, and videos that can help veterinarians and their staff members understand what makes cats fearful, what cat behaviors are fear-related, and how to safely handle fearful cats.^{3,4}

Finally, veterinarians have a responsibility to educate cat owners about normal cat behaviors such as scratching⁵ and the use of positive reinforcement strategies⁶ instead of punishment to encourage their cats to behave in a way that is more acceptable to them. If an owner is

Instructions for Writing a Letter to the Editor

Readers are invited to submit letters to the editor. Letters may not exceed 500 words and 6 references. Letters to the Editor must be original and cannot have been published or submitted for publication elsewhere. Not all letters are published; all letters accepted for publication are subject to editing. Those pertaining to anything published in the *JAVMA* should be received within one month of the date of publication. Submission via email (JournalLetters@avma.org) or fax (847-925-9329) is encouraged; authors should give their full contact information, including address, daytime telephone number, fax number, and email address.

Letters containing defamatory, libelous, or malicious statements will not be published, nor will letters representing attacks on or attempts to demean veterinary societies or their committees or agencies. Viewpoints expressed in published letters are those of the letter writers and do not necessarily represent the opinions or policies of the AVMA.

unable or unwilling to compromise, rehoming may be appropriate.

The Cat Friendly Practice Program was created to provide practices with the tools and resources to integrate a feline perspective and embrace the standards needed to elevate the care and handling of cats.⁷ Following the principles of the Cat Friendly Practice Program can decrease the stress of feline patients, their owners, and the veterinary staff. We encourage everyone to read more about the program and consider going through the process. By the time you are finished, the benefits to your patients, your clients, and particularly you and your staff will be undeniable.

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1. Kornheiser KM. The potential benefits of declawing should not be dismissed out of hand (lett). *J Am Vet Med Assoc* 2014;245:753.
2. AVMA. Welfare implications of declawing domestic cats. Available at: www.avma.org/KB/Resources/LiteratureReviews/Pages/Welfare-Implications-of-Declawing-of-Domestic-Cats-Backgrounder.aspx. Accessed Sep 30, 2014.
3. AAFF. Feline-friendly handling guidelines. Available at: www.catvets.com/guidelines/practice-guidelines/handling-guidelines. Accessed Sep 30, 2014.
4. Catalyst Council. Videos. Available at: www.catalystcouncil.org/resources/video/. Accessed Sep 30, 2014.
5. Mengoli M, Mariti C, Cozzi A, et al. Scratching behaviour and its features: a questionnaire-based study in an Italian sample of domestic cats. *J Feline Med Surg* 2013;15:886–892.
6. AAFF. Positive reinforcement statement. Available at: www.catvets.com/guidelines/position-statements/positive-reinforcement. Accessed Sep 30, 2014.
7. AAFF. Cat Friendly Practice Program. Available at: www.catvets.com/cfp. Accessed Oct 3, 2014.

Serial laboratory testing in Scottish Terriers with vacuolar hepatopathy

In a recent article, Cortright et al¹ recommend semiannual moni-

toring of serum hepatic enzyme activities and markers of hepatic function in Scottish Terriers with high serum alkaline phosphatase (ALP) activity. Further, they speculate that abrupt increases in serum ALP activity may indicate emerging hepatocellular carcinoma or gallbladder mucocele in such dogs. Their recommendation raises the interesting question of what magnitude increase in ALP activity (and, similarly, what changes in other hepatic enzyme activities and biochemical markers) should be considered biologically important. Further, their recommendation is an opportunity to remind practicing veterinarians that serial changes in measured analyte values may represent not only disease activity but also analytical variation and inherent biological variation (BV) and that because of differences between instruments and methods, serial monitoring should ideally be performed with the same instrument and method each time.²

For analytes having known BV whose values are measured with the same instrument, calculation of a reference change value (RCV), also known as a critical difference, can facilitate the interpretation of serial changes in laboratory values.³ The RCV is the minimum difference between two consecutive test results in a single individual that would be considered biologically important (potentially, even if both results are within the population-based reference limits).³ The RCV is expressed as a percentage and can be calculated for any analyte for which BV and analytical variation are known by use of the formula $RCV = 1.96 \times (2 \times [CV_{intra}^2 + CV_{analytical}^2])^{0.5}$, where CV_{intra} is the within-individual BV for that analyte and species and $CV_{analytical}$ is the analytical variation of the laboratory instrument being used.³ Importantly, the RCV for any given analyte will vary depending on the laboratory, given that different instruments and methods will result in different degrees of analytical variation.

Biological variation data are available for some commonly measured veterinary analytes. On the basis of data compiled by Jensen and Kjølgaard-Hansen⁴ and analytical variation data for the chemistry

instrument^a at the University of Tennessee College of Veterinary Medicine, I calculated the RCV for ALP activity to be 24.3%. Thus, if ALP activity for a given Scottish Terrier is 570 U/L (reference range for our laboratory, 15 to 164 U/L), then the ALP activity 6 months later would have to be at least 709 U/L ($570 \text{ U/L} + [570 \text{ U/L} \times 0.243]$) for the increase to be considered biologically important. Any increase between 570 and 709 U/L could be due to the inherent BV of ALP activity or the inherent analytical variation of the instrument used. This example raises the additional interesting point of whether the BV of ALP activity in Scottish Terriers is different from the BV in dogs of other breeds, a question that remains to be investigated.

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a. Cobas c501, Roche Diagnostics, Indianapolis, Ind.

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2. Fraser CG. Foreword. In: Fraser CG, ed. *Biological variation: from principles to practice*. Washington, DC: AACC Press, 2001;ix.
3. Walton RM. Subject-based reference values: biological variation, individuality, and reference change values. *Vet Clin Pathol* 2012;41:175–181.
4. Jensen AL, Kjølgaard-Hansen M. Method comparison in the clinical laboratory. *Vet Clin Pathol* 2006;35:279–286.

The authors respond:

We thank Dr. Flatland for his letter on the importance of sequential testing of serum alkaline phosphatase (ALP) activity in Scottish Terriers and his comments on reasonable interpretation of increases in serum ALP activity. However, in our experience, increases in serum ALP activity that herald development of a gallbladder mucocele or hepatocellular carcinoma are not marginal. For example, in one dog that we examined, serum ALP activity ranged from 500 to 1,500

U/L between 5.5 and 10.5 years of age, but increased to > 3,000 U/L around the time the dog developed a gallbladder mucocele.

We recommend caution in interpreting hepatic enzyme activities, as these values alone cannot define emerging disorders without imaging or histologic evaluation of hepatic tissue. Importantly, some dogs in our study developed severe copper-associated hepatopathy and lymphoplasmacytic hepatitis in addition to gallbladder mucocele or hepatocellular carcinoma.

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AVMA COE accreditation

The recent *JAVMA* News article "Arizona veterinary program secures funding"¹ cites a press release distributed by the University of Arizona that reflects the opinions of the university, not the AVMA Council on Education (COE). It is important to point out that the proposed veterinary medical degree program has not yet been evaluated by the COE.

It remains to be seen whether the University of Arizona program will be able to meet the COE standards of accreditation. This will require a comprehensive site visit.

However, because the COE conducts a maximum of 12 accreditation site visits each year and 12 site visits have already been scheduled for 2015, a comprehensive site visit to the University of Arizona program could not take place before 2016, at the earliest.

The COE ensures that veterinary colleges are held to the 11 standards required of all accredited colleges of veterinary medicine.² Obtaining accreditation is a demanding process with multiple steps that takes a minimum of 5 years, and there is no guarantee that accreditation will be granted. The standards of accreditation are open to continuous review by those in the profession and other stakeholders to ensure they accurately reflect societal needs for entry-level veterinary services. As evidence of the effectiveness of the accreditation process, the mean pass rate for graduates of both domestic and foreign COE-accredited veterinary colleges taking the North American Veterinary Licensing Examination during the 2012 academic year was 92%. In contrast, the pass rate for graduates of nonaccredited colleges was 37%.

The comprehensive site visit is only one of many required steps in the accreditation process, and a comprehensive site visit is scheduled only after a university submits a detailed self-study that clearly demonstrates how the program plans to comply with the 11 COE standards of accreditation. The plan must, in the judgment of the council, be feasible before the COE will issue a letter of reasonable assur-

ance. If a university fails to receive a letter of reasonable assurance, it will be required to modify its plan, as directed by the COE, and wait a year before reapplying and scheduling another site visit.

The self-study must detail how the university will ensure the program has adequate funding, appropriate facilities for learning, suitable clinical resources, sufficient faculty with appropriate credentials, a curriculum that extends over a period equivalent to a minimum of 4 academic years (including a minimum of 1 academic year of hands-on clinical education), and substantial research activities.

The publication of inaccurate or easily misunderstood information can lead to false assumptions and erroneous conclusions about the accreditation process. An effort is being made to increase the amount of information about the accreditation process on the AVMA website and other media outlets to ensure that accurate, easily understood information is more readily available to those who need it.

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1. Arizona veterinary program secures funding. *J Am Vet Med Assoc* 2014;245:877.
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