

Trends

magazine

The Future of Hospital Design

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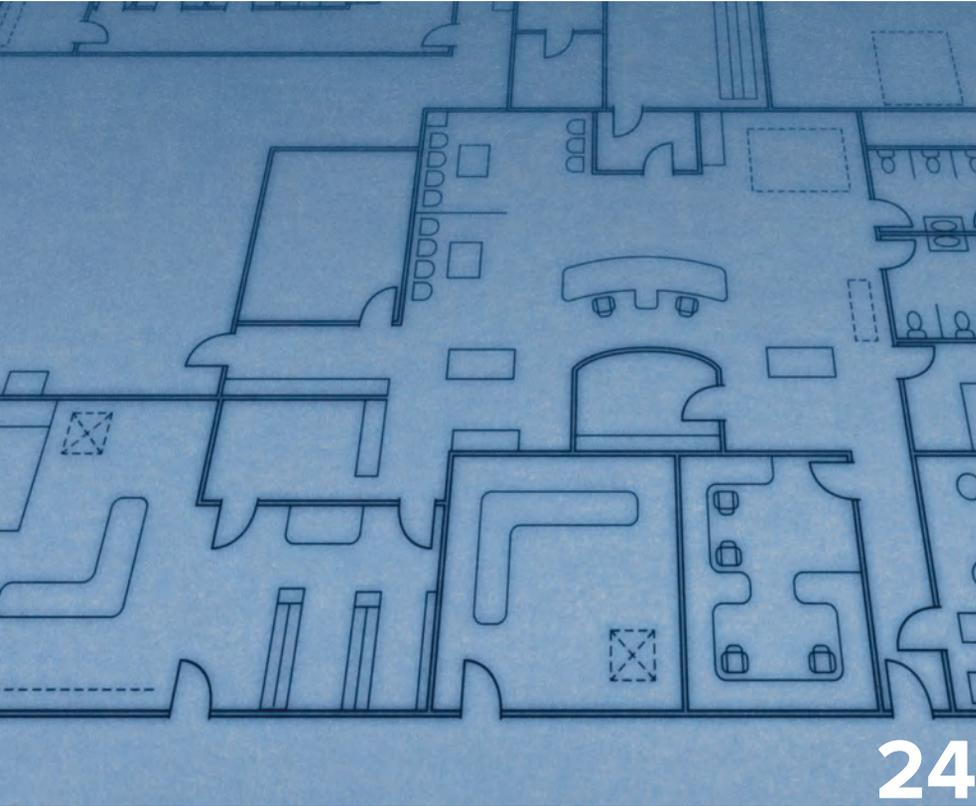
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features



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An update on the latest from 2020, and what is coming next

by Roxanne Hawn



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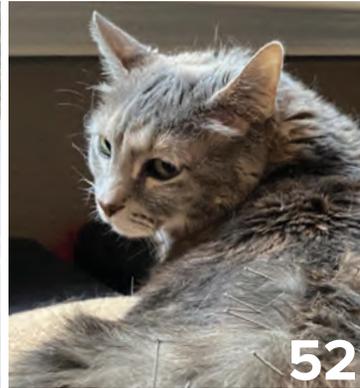
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Formulated by **ROBERT J. SILVER DVM, MS, CVA**

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the usual

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from the editor's desk

EARLIER THIS YEAR I WROTE THAT WE WOULD “probably be done with the pandemic by the time you read this” and “hopefully, the coronavirus will be ancient history by now.” Well, obviously, that didn’t happen! Now, all I can say is let’s hope 2021 will bring some good news about something.

But as the pandemic rages on, let’s get something useful out of it. To that end, this month we are taking a look at how the pandemic might shape the way we design veterinary hospitals, and how we can make safer spaces for animals and clients—when they are finally allowed back into the practice. This article is by our very own Tony McReynolds, who has been covering COVID-19 in all its forms on AAHA’s news site, *NEWStat*, since the onset of this global health crisis.

Our other feature delves into the world of nutrition and dilated cardiomyopathy—a topic fraught with controversy, but as you can expect from *Trends*, we look at it from the most objective point of view possible. This article is a roundup of the current research, and it also gives an idea of what is coming down the pike for 2021.

Also worth a look this month is a feature on the outstanding practices that were the finalists for the 2020 AAHA-Accredited Practice of the Year Award. These top-notch practices have a lot to offer in terms of community service, superior patient care, and customer service.

SHARE THE LOVE

Don’t forget to share the *Trends* article of the month on your social media channel. This helps spread the word about *Trends*—and AAHA—to future members. The article of the month is accessible to all readers, so when you share it, your followers won’t need to log in to AAHA. To access it, head over to trends.aaha.org.

COMING NEXT MONTH

Next month is also next year, finally! In January, look for articles on new CBD research, how to give yourself a digital marketing makeover, and living wages in the veterinary profession.

As always, let me know what you think at trends@aaha.org.

—Ben Williams, Editor



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- FAQs and tips for client and staff education
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- An update on feline injection-site sarcomas (FISS)
- Considerations for attenuated, inactivated, and recombinant vaccines
- A webinar summarizing the must-see and clinically important sections of the guidelines

aaha.org/felinevaccination



Order the Vaccinating Your Pet brochure and *Understanding Your Pet's Health* at press.aaha.org.

Boehringer Ingelheim Animal Health USA Inc., Elanco Animal Health, Merck Animal Health, and Zoetis Petcare supported the development of the 2020 AAHA/AAFP Feline Vaccination Guidelines and resources through an educational grant to AAHA.



View from the Board

Marketing Helps You, Helps Patients

Marketing your practice is an essential component to success in the veterinary profession today. Marketing can be aggressive or passive. However, everyone must have some form of marketing to thrive. Some practices choose to use large budgets and a multimodal approach; others choose to passively market their practice through word-of-mouth recommendations from current clients. Neither approach is wrong. The key to marketing is to measure your success. You will never know how well a program works unless you measure its return on your investment. It does not matter what mode is used; it only matters what mode reaches the target group. Therefore, before you spend any significant time or money on marketing, make sure you have a clear target audience. There are many ways to spend money marketing your practice, but you need to choose the method that produces the best results for that target audience.

The use of a professional marketing company can help you determine what methods of communication are best in your area in order to reach that target group. AAHA recommends the Strategic Alliance Program, which includes InTouch Practice Communications, Vet Success, and GeniusVets, as well as Beyond Indigo Pets, a provider in our Member Values Program. These companies can provide reliable, veterinary-specific, cutting-edge resources to drive your practice forward. If you choose to develop your own marketing plan, make sure you know what marketing mode will reach your targeted group. Successful marketing is dependent on delivering the right message to the right people at the right time. In some situations, social media may be the best marketing tool, but success is more than just how many likes you have on Facebook. You need to convert the money spent developing the site into revenue.

In my career, I have tried many forms of marketing, from internal marketing to major external marketing campaigns. In my experience, some of the most successful marketing methods have been low in cost and some of the biggest failures have come with large costs; a bigger budget may not produce better results. The

marketing modes I have tried include billboard ads, radio ads, newspaper ads, Google ads, paid digital marketing, local yellow page ads, social media, client-referral programs, reward programs, direct marketing, and internal marketing. All plans had their advantages, but the most effective, for us, has been the internal marketing of services. Often, we forget that it is far easier and less expensive to recapture noncompliant customers and increase compliance levels for underutilized services rather than focusing on the acquisition of new clients. You may not need to add one more client to increase your revenue significantly. Therefore, capturing this low-hanging fruit in services may be a good place to start.

In my opinion, the best way to market a practice is to focus on what your practice does really well and communicate that to as many people as you can. Remember, the most expensive marketing campaign is the one that doesn't work. Therefore, know your audience, measure your results, and try different modes of marketing to see what works best for your practice in your area. Never stop marketing yourself and your services to your clients; it will produce not only a healthier practice but also healthier patients.



Mark Thompson DVM, MBA, CCRP, is a director on the AAHA Board of Directors. He is owner and hospital director of Country Hills Pet Hospital in Eden, Wisconsin, which was the AAHA-Accredited Practice of the Year in 2018.



Low-Cost Staff Holiday Gifts

Searching for the right holiday gifts to show appreciation to your team? Try one of these low-cost trends.

- **Personalized gear.** Mugs, T-shirts, socks, hats, tote bags—anything can be personalized with team members' names, the name of your practice, or a unique message all your own.
- **Practical items for working in your practice.** Look for things your team needs to do their jobs more efficiently. Something as simple as a high-quality pen can improve someone's workday and be a reminder that they are appreciated.
- **Gift cards.** Go beyond the standard gift card and buy team members credits to rent a movie online or to download an audiobook.
- **Care packages.** Assemble a holiday TLC package with snacks, tissues, hand sanitizer, lip balm, and other goodies.
- **Creativity tools.** Who can resist fresh art supplies? And getting creative is great stress relief. Gift your tired team adult coloring books or bound journals.

We'd love to hear your staff-appreciation ideas in the AAHA-Accredited Members Facebook Group!

Virtual Options Continue for Connexity 2021

We're taking what we've learned from the first all-virtual Connexity this year to inform changes and improve online capabilities for 2021.

"The transition to an online-only conference was a huge undertaking for AAHA, but it also taught us a lot about how to deliver Connexity's CE and networking opportunities digitally," said Erin Parrott, CMP, AAHA's senior manager of meetings and events.

While the association plans to continue in-person events whenever possible, newly expanded virtual options allow for more people to participate through single-day registrations and on-demand viewing options. Registered guests can watch recordings of sessions for a full year following the conference.

"Many practices didn't have the time to get away for the entire live Connexity conference this year with COVID-19, so the on-demand option allowed us to open up this content for a longer period of time and generate more engagement to give the best offerings to our members," Parrott said. "We hope to continuously improve AAHA's virtual CE so we can share this content with as much of the veterinary profession as possible."

Purchase on-demand access to Connexity 2020 sessions and stay informed about Connexity 2021 at aaha.org/connexity.



AAHA MEETINGS AND EVENTS

DECEMBER							JANUARY							FEBRUARY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5						1	2		1	2	3	4	5	6
6	7	8	9	10	11	12	3	4	5	6	7	8	9	7	8	9	10	11	12	13
13	14	15	16	17	18	19	10	11	12	13	14	15	16	14	15	16	17	18	19	20
20	21	22	23	24	25	26	17	18	19	20	21	22	23	21	22	23	24	25	26	27
27	28	29	30	31			24	25	26	27	28	29	30	28						
							31													

- AAHA office closures
- New edition of *The Veterinary Fee Reference* available from AAHA Press!
- AAHA office closure
- AAHA at VMX (virtual)
- AAHA Guide to Safeguarding Controlled Substances* available from AAHA Press!

To register for a learning program and learn more about AAHA's upcoming events, visit aaha.org.

DEAR AAHA

Dear AAHA,

Do you have any insight on how to deal with angry clients? December can be particularly tough because of the holidays. Clients can be more stressed and emotional than normal—as well as more sensitive to spending money.

—Holiday Cheerful in Chattanooga

Dear Holiday Cheerful,

These are always difficult situations, and there aren't easy answers. Every practice should have a client-conflict protocol to prepare team members for just these types of scenarios. We recommend the Aspire course "Mastering Difficult Client Communications," available through AAHA Learning (aaha.org/learning). The helpful *NEWStat* article "How to handle angry clients without losing your cool" is available at aaha.org/newstat. There are also many great resources in the AAHA Press Store (aaha.org/store), including *Exceptional Customer Experience: 80 Tips for Compassionate Care, Clear Communication, and Authentic Client Connections*. We wish you luck!

—AAHA's Member Experience Team

Have a question you'd like AAHA to answer? Email us at dearaaha@aaha.org.



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Description: Meloxicam is a non-steroidal anti-inflammatory drug (NSAID) of the oxicam class. Each milliliter of METACAM Oral Suspension contains meloxicam equivalent to 0.5 or 1.5 milligrams and sodium benzoate (1.5 milligrams) as a preservative. The chemical name for Meloxicam is 4-Hydroxy-2-methyl-N-(5-methyl-2-thiazolyl)-2H-1,2-benzothiazine-3-carboxamide-1,1-dioxide. The formulation is a yellowish viscous suspension with the odor of honey.

Indications: METACAM Oral Suspension is indicated for the control of pain and inflammation associated with osteoarthritis in dogs.

Contraindications: Dogs with known hypersensitivity to meloxicam should not receive METACAM Oral Suspension. **Do not use METACAM Oral Suspension in cats. Acute renal failure and death have been associated with the use of meloxicam in cats.**

Warnings: Not for use in humans. Keep this and all medications out of reach of children. Consult a physician in case of accidental ingestion by humans. **For oral use in dogs only.**

As with any NSAID all dogs should undergo a thorough history and physical examination before the initiation of NSAID therapy. Appropriate laboratory testing to establish hematological and serum biochemical baseline data is recommended prior to and periodically during administration. Owner should be advised to observe their dog for signs of potential drug toxicity and be given a client information sheet about METACAM.

Precautions: The safe use of METACAM Oral Suspension in dogs younger than 6 months of age, dogs used for breeding, or in pregnant or lactating dogs has not been evaluated. Meloxicam is not recommended for use in dogs with bleeding disorders, as safety has not been established in dogs with these disorders. As a class, cyclo-oxygenase inhibitory NSAIDs may be associated with gastrointestinal, renal and hepatic toxicity. Sensitivity to drug-associated adverse events varies with the individual patient. Dogs that have experienced adverse reactions from one NSAID may experience adverse reactions from another NSAID. Patients at greatest risk for renal toxicity are those that are dehydrated, on concomitant diuretic therapy, or those with existing renal, cardiovascular, and/or hepatic dysfunction. Concurrent administration of potentially nephrotoxic drugs should be carefully approached. NSAIDs may inhibit the prostaglandins that maintain normal homeostatic function. Such anti-prostaglandin effects may result in clinically significant disease in patients with underlying or pre-existing disease that has not been previously diagnosed. Since NSAIDs possess the potential to induce gastrointestinal ulcerations and/or perforations, concomitant use with other anti-inflammatory drugs, such as NSAIDs or corticosteroids, should be avoided. If additional pain medication is needed after administration of the total daily dose of METACAM Oral Suspension, a non-NSAID or non-corticosteroid class of analgesia should be considered. The use of another NSAID is not recommended. Consider appropriate washout times when switching from corticosteroid use or from one NSAID to another in dogs. The use of concomitantly protein-bound drugs with METACAM Oral Suspension has not been studied in dogs. Commonly used protein-bound drugs include cardiac, anticonvulsant and behavioral medications. The influence of concomitant drugs that may inhibit metabolism of METACAM Oral Suspension has not been evaluated. Drug compatibility should be monitored in patients requiring adjunctive therapy.

Adverse Reactions: Field safety was evaluated in 306 dogs.¹ Based on the results of two studies, GI abnormalities (vomiting, soft stools, diarrhea, and inappetence) were the most common adverse reactions associated with the administration of meloxicam.

The following adverse events are based on post-approval adverse drug experience reporting. Not all adverse reactions are reported to FDA/CVM. It is not always possible to reliably estimate the adverse event frequency or establish a causal relationship to product exposure using these data. The following adverse events are listed in decreasing order of frequency by body system.

Gastrointestinal: vomiting, anorexia, diarrhea, melena, gastrointestinal ulceration

Urinary: azotemia, elevated creatinine, renal failure

Neurological/Behavioral: lethargy, depression

Hepatic: elevated liver enzymes

Dermatologic: pruritus

Death has been reported as an outcome of the adverse events listed above. **Acute renal failure and death have been associated with use of meloxicam in cats.**

Information for Dog Owners: METACAM, like other drugs of its class, is not free from adverse reactions. Owners should be advised of the potential for adverse reactions and be informed of the clinical signs associated with drug intolerance. Adverse reactions may include vomiting, diarrhea, decreased appetite, dark or tarry stools, increased water consumption, increased urination, pale gums due to anemia, yellowing of gums, skin or white of the eye due to jaundice, lethargy, incoordination, seizure, or behavioral changes. **Serious adverse reactions associated with this drug class can occur without warning and in rare situations result in death (see Adverse Reactions). Owners should be advised to discontinue METACAM and contact their veterinarian immediately if signs of intolerance are observed.** The vast majority of patients with drug related adverse reactions have recovered when the signs are recognized, the drug is withdrawn, and veterinary care, if appropriate, is initiated. Owners should be advised of the importance of periodic follow up for all dogs during administration of any NSAID.

Effectiveness: The effectiveness of meloxicam was demonstrated in two field studies involving a total of 277 dogs representing various breeds, between six months and sixteen years of age, all diagnosed with osteoarthritis. Both of the placebo-controlled, masked studies were conducted for 14 days. All dogs received 0.2 mg/kg meloxicam on day 1. All dogs were maintained on 0.1 mg/kg oral meloxicam from days 2 through 14 of both studies. Parameters evaluated by veterinarians included lameness, weight-bearing, pain on palpation, and overall improvement. Parameters assessed by owners included mobility, ability to rise, limping, and overall improvement. In the first field study (n=109), dogs showed clinical improvement with statistical significance after 14 days of meloxicam treatment for all parameters. In the second field study (n=48), dogs receiving meloxicam showed a clinical improvement after 14 days of therapy for all parameters; however, statistical significance was demonstrated only for the overall investigator evaluation on day 7, and for the owner evaluation on day 14.¹

Reference: 1. FOI for NADA 141-213 METACAM (meloxicam oral suspension).

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Non-steroidal anti-inflammatory drug for use in dogs and cats only

Caution: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

Warning: Repeated use of meloxicam in cats has been associated with acute renal failure and death. Do not administer additional injectable or oral meloxicam to cats. See **Contraindications, Warnings, and Precautions** for detailed information.

Description: Meloxicam is a non-steroidal anti-inflammatory drug (NSAID) of the oxicam class. Each mL of this sterile product for injection contains meloxicam 5.0 mg, alcohol 15%, glycofurool 10%, poloxamer 188 5%, sodium chloride 0.6%, glycine 0.5% and meglumine 0.3%, in water for injection, pH adjusted with sodium hydroxide and hydrochloric acid.

Indications:

Dogs: METACAM (meloxicam) 5 mg/mL Solution for Injection is indicated in dogs for the control of pain and inflammation associated with osteoarthritis.

Contraindications: Dogs with known hypersensitivity to meloxicam should not receive METACAM 5 mg/mL Solution for Injection.

Warnings: Not for use in humans. Keep this and all medications out of reach of children. Consult a physician in case of accidental ingestion by humans. For IV or SQ injectable use in dogs. All dogs should undergo a thorough history and physical examination before administering any NSAID. Appropriate laboratory testing to establish hematological and serum biochemical baseline data is recommended prior to, and periodically during use of any NSAID in dogs.

Owner should be advised to observe their dogs for signs of potential drug toxicity.

Precautions: The safe use of METACAM 5 mg/mL Solution for Injection in dogs younger than 6 months of age, dogs used for breeding, or in pregnant or lactating bitches has not been evaluated. Meloxicam is not recommended for use in dogs with bleeding disorders, as safety has not been established in dogs with these disorders. Safety has not been established for intramuscular (IM) administration in dogs. When administering METACAM 5 mg/mL Solution for Injection, use a syringe of appropriate size to ensure precise dosing. As a class, cyclo-oxygenase inhibitory NSAIDs may be associated with gastrointestinal, renal and hepatic toxicity. Sensitivity to drug-associated adverse events varies with the individual patient. Dogs that have experienced adverse reactions from one NSAID may experience adverse reactions from another NSAID. Patients at greatest risk for renal toxicity are those that are dehydrated, on concomitant diuretic therapy, or those with existing renal, cardiovascular, and/or hepatic dysfunction. Concurrent administration of potentially nephrotoxic drugs should be carefully approached. NSAIDs may inhibit the prostaglandins that maintain normal homeostatic function. Such anti-prostaglandin effects may result in clinically significant disease in patients with underlying or preexisting disease that has not been previously diagnosed. Since NSAIDs possess the potential to induce gastrointestinal ulcerations and/or perforations, concomitant use with other anti-inflammatory drugs, such as NSAIDs or corticosteroids, should be avoided. If additional pain medication is needed after the administration of the total daily dose of METACAM Oral Suspension, a non-NSAID or noncorticosteroid class of analgesia should be considered. The use of another NSAID is not recommended. Consider appropriate washout times when switching from corticosteroid use or from one NSAID to another in dogs. The use of concomitantly protein-bound drugs with METACAM 5 mg/mL Solution for Injection has not been studied in dogs. Commonly used protein-bound drugs include cardiac, anticonvulsant and behavioral medications. The influence of concomitant drugs that may inhibit metabolism of METACAM 5 mg/mL Solution for Injection has not been evaluated. Drug compatibility should be monitored in patients requiring adjunctive therapy. The effect of cyclo-oxygenase inhibition and the potential for thromboembolic occurrence or a hypercoagulable state has not been studied.

Adverse Reactions:

Dogs: A field study involving 224 dogs was conducted.¹ Based on the results of this study, GI abnormalities (vomiting, soft stools, diarrhea, and inappetence) were the most common adverse reactions associated with the administration of meloxicam.

The following adverse reactions are based on post-approval adverse drug event reporting. The categories are listed in decreasing order of frequency by body system:

Gastrointestinal: vomiting, diarrhea, melena, gastrointestinal ulceration

Urinary: azotemia, elevated creatinine, renal failure

Neurological/Behavioral: lethargy, depression

Hepatic: elevated liver enzymes

Dermatologic: pruritus

Death has been reported as an outcome of the adverse events listed above. **Acute renal failure and death have been associated with the use of meloxicam in cats.**

Information For Dog Owners: Meloxicam, like other NSAIDs, is not free from adverse reactions. Owners should be advised of the potential for adverse reactions and be informed of the clinical signs associated with NSAID intolerance. Adverse reactions may include vomiting, diarrhea, lethargy, decreased appetite and behavioral changes. Dog owners should be advised when their pet has received a meloxicam injection. Dog owners should contact their veterinarian immediately if possible adverse reactions are observed, and dog owners should be advised to discontinue METACAM therapy.

Effectiveness:

Dogs: The effectiveness of METACAM 5 mg/mL Solution for Injection was demonstrated in a field study involving a total of 224 dogs representing various breeds, all diagnosed with osteoarthritis.¹ This placebo-controlled, masked study was conducted for 14 days. Dogs received a subcutaneous injection of 0.2 mg/kg METACAM 5 mg/mL Solution for Injection on day 1. The dogs were maintained on 0.1 mg/kg oral meloxicam from days 2 through 14. Variables evaluated by veterinarians included lameness, weight-bearing, pain on palpation, and overall improvement. Variables assessed by owners included mobility, ability to rise, limping, and overall improvement.

In this field study, dogs showed clinical improvement with statistical significance after 14 days of meloxicam treatment for all variables.

Reference: 1. FOI for NADA 141-219 METACAM (meloxicam) 5 mg/mL Solution for Injection.

Manufactured for:

Boehringer Ingelheim Vetmedica, Inc.
St. Joseph, MO 64506 U.S.A.

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CHEWABLE TABLETS

Brief Summary: Before using PREVICOX, please consult the product insert, a summary of which follows:

Caution: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

Indications: PREVICOX (firocoxib) Chewable Tablets are indicated for the control of pain and inflammation associated with osteoarthritis and for the control of postoperative pain and inflammation associated with soft-tissue and orthopedic surgery in dogs.

Contraindications: Dogs with known hypersensitivity to firocoxib should not receive PREVICOX.

Warnings: Not for use in humans. Keep this and all medications out of the reach of children. Consult a physician in case of accidental ingestion by humans.

For oral use in dogs only. Use of this product at doses above the recommended 2.27 mg/lb (5.0 mg/kg) in puppies less than seven months of age has been associated with serious adverse reactions, including death (see Animal Safety). Due to tablet sizes and scoring, dogs weighing less than 12.5 lb (5.7 kg) cannot be accurately dosed.

All dogs should undergo a thorough history and physical examination before the initiation of NSAID therapy. Appropriate laboratory testing to establish hematological and serum baseline data is recommended prior to and periodically during administration of any NSAID. **Owners should be advised to observe for signs of potential drug toxicity (see Adverse Reactions and Animal Safety) and be given a Client Information Sheet about PREVICOX Chewable Tablets.**

For technical assistance or to report suspected adverse events, call 1-877-217-3543. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDAVETS or <http://www.fda.gov/AnimalVeterinary/SafetyHealth>

Precautions: This product cannot be accurately dosed in dogs less than 12.5 pounds in body weight. Consider appropriate washout times when switching from one NSAID to another or when switching from corticosteroid use to NSAID use.

As a class, cyclooxygenase inhibitory NSAIDs may be associated with renal, gastrointestinal and hepatic toxicity. Sensitivity to drug-associated adverse events varies with the individual patient. Dogs that have experienced adverse reactions from one NSAID may experience adverse reactions from another NSAID. Patients at greatest risk for adverse events are those that are dehydrated, on concomitant diuretic therapy, or those with existing renal, cardiovascular, and/or hepatic dysfunction. Concomitant administration of potentially nephrotoxic drugs should be carefully approached and monitored. NSAIDs may inhibit the prostaglandins that maintain normal homeostatic function. Such anti-prostaglandin effects may result in clinically significant disease in patients with underlying or pre-existing disease that has not been previously diagnosed. Since NSAIDs possess the potential to produce gastrointestinal ulceration and/or gastrointestinal perforation, concomitant use of PREVICOX Chewable Tablets with other anti-inflammatory drugs, such as NSAIDs or corticosteroids, should be avoided. The concomitant use of protein-bound drugs with PREVICOX Chewable Tablets has not been studied in dogs. Commonly used protein-bound drugs include cardiac, anticonvulsant, and behavioral medications. The influence of concomitant drugs that may inhibit the metabolism of PREVICOX Chewable Tablets has not been evaluated. Drug compatibility should be monitored in patients requiring adjunctive therapy. If additional pain medication is needed after the daily dose of PREVICOX, a non-NSAID class of analgesic may be necessary. Appropriate monitoring procedures should be employed during all surgical procedures. Anesthetic drugs may affect renal perfusion, approach concomitant use of anesthetics and NSAIDs cautiously. The use of parenteral fluids during surgery should be considered to decrease potential renal complications when using NSAIDs perioperatively. The safe use of PREVICOX Chewable Tablets in pregnant, lactating or breeding dogs has not been evaluated.

Adverse Reactions:

Osteoarthritis: In controlled field studies, 128 dogs (ages 11 months to 15 years) were evaluated for safety when given PREVICOX Chewable Tablets at a dose of 2.27 mg/lb (5.0 mg/kg) orally once daily for 30 days. The following adverse reactions were observed. Dogs may have experienced more than one of the observed adverse reactions during the study.

Adverse Reactions Seen in U. S. Field Studies

Adverse Reactions	PREVICOX (n=128)	Active Control (n=121)
Vomiting	5	8
Diarrhea	1	10
Decreased Appetite or Anorexia	3	3
Lethargy	1	3
Pain	2	1
Somnolence	1	1
Hyperactivity	1	0

PREVICOX (firocoxib) Chewable Tablets were safely used during field studies concomitantly with other therapies, including vaccines, anthelmintics, and antibiotics.

Soft-tissue Surgery: In controlled field studies evaluating soft-tissue postoperative pain and inflammation, 258 dogs (ages 10.5 weeks to 16 years) were evaluated for safety when given PREVICOX Chewable Tablets at a dose of 2.27 mg/lb (5.0 mg/kg) orally approximately 2 hours prior to surgery and once daily thereafter for up to two days. The following adverse reactions were observed. Dogs may have experienced more than one of the observed reactions during the study.

Adverse Reactions Seen in the Soft-tissue Surgery Postoperative Pain Field Studies

Adverse Reactions	Firocoxib Group (n=127)	Control Group* (n=131)
Vomiting	5	6
Diarrhea	1	1
Bruising at Surgery Site	1	1
Respiratory Arrest	1	0
SQ Crepitus in Rear Leg and Flank	1	0
Swollen Paw	1	0

*Sham-dosed (pilled)

Orthopedic Surgery: In a controlled field study evaluating orthopedic postoperative pain and inflammation, 226 dogs of various breeds, ranging in age from 1 to 11.9 years in the PREVICOX-treated groups and 0.7 to 17 years in the control group were evaluated for safety. Of the 226 dogs, 118 were given PREVICOX Chewable Tablets at a dose of 2.27 mg/lb (5.0 mg/kg) orally approximately 2 hours prior to surgery and once daily thereafter for a total of three days. The following adverse reactions were observed. Dogs may have experienced more than one of the observed reactions during the study.

Adverse Reactions Seen in the Orthopedic Surgery Postoperative Pain Field Study

Adverse Reactions	Firocoxib Group (n=118)	Control Group* (n=108)
Vomiting	1	0
Diarrhea	2**	1
Bruising at Surgery Site	2	3
Inappetence/ Decreased Appetite	1	2
Pyrexia	0	1
Incision Swelling, Redness	9	5
Oozing Incision	2	0

A case may be represented in more than one category.

*Sham-dosed (pilled).

**One dog had hemorrhagic gastroenteritis.

Post-Approval Experience (Rev. 2009): The following adverse reactions are based on post-approval adverse drug event reporting. The categories are listed in decreasing order of frequency by body system:

Gastrointestinal: Vomiting, anorexia, diarrhea, melena, gastrointestinal perforation, hematemesis, hematochezia, weight loss, gastrointestinal ulceration, peritonitis, abdominal pain, hypersalivation, nausea

Urinary: Elevated BUN, elevated creatinine, polydipsia, polyuria, hematuria, urinary incontinence, proteinuria, kidney failure, azotemia, urinary tract infection

Neurological/Behavioral/Special Sense: Depression/lethargy, ataxia, seizures, nervousness, confusion, weakness, hyperactivity, tremor, paresis, head tilt, nystagmus, mydriasis, aggression, uveitis

Hepatic: Elevated ALP, elevated ALT, elevated bilirubin, decreased albumin, elevated AST, icterus, decreased or increased total protein and globulin, pancreatitis, ascites, liver failure, decreased BUN

Hematological: Anemia, neutrophilia, thrombocytopenia, neutropenia

Cardiovascular/Respiratory: Tachypnea, dyspnea, tachycardia

Dermatologic/Immunologic: Pruritis, fever, alopecia, moist dermatitis, autoimmune hemolytic anemia, facial/muzzle edema, urticaria

In some situations, death has been reported as an outcome of the adverse events listed above.

For a complete listing of adverse reactions for firocoxib reported to the CVM see: <http://www.fda.gov/downloads/AnimalVeterinary/SafetyHealth/ProductSafetyInformation/UCM055407.pdf>

Information For Dog Owners: PREVICOX, like other drugs of its class, is not free from adverse reactions. Owners should be advised of the potential for adverse reactions and be informed of the clinical signs associated with drug intolerance. Adverse reactions may include vomiting, diarrhea, decreased appetite, dark or tarry stools, increased water consumption, increased urination, pale gums due to anemia, yellowing of gums, skin or white of the eye due to jaundice, lethargy, incoordination, seizure, or behavioral changes. **Serious adverse reactions associated with this drug class can occur without warning and in rare situations result in death (see Adverse Reactions). Owners should be advised to discontinue PREVICOX therapy and contact their veterinarian immediately if signs of intolerance are observed.** The vast majority of patients with drug-related adverse reactions have recovered when the signs are recognized, the drug is withdrawn, and veterinary care, if appropriate, is initiated. Owners should be advised of the importance of periodic follow up for all dogs during administration of any NSAID.

Effectiveness: Two hundred and forty-nine dogs of various breeds, ranging in age from 11 months to 20 years, and weighing 13 to 175 lbs, were randomly administered PREVICOX or an active control drug in two field studies. Dogs were assessed for lameness, pain on manipulation, range of motion, joint swelling, and overall improvement in a non-inferiority evaluation of PREVICOX compared with the active control. At the study's end, 87% of the owners rated PREVICOX-treated dogs as improved. Eighty-eight percent of dogs treated with PREVICOX were also judged improved by the veterinarians. Dogs treated with PREVICOX showed a level of improvement in veterinarian-assessed lameness, pain on palpation, range of motion, and owner-assessed improvement that was comparable to the active control. The level of improvement in PREVICOX-treated dogs in limb weight bearing on the force plate gait analysis assessment was comparable to the active control. In a separate field study, two hundred fifty-eight client-owned dogs of various breeds, ranging in age from 10.5 weeks to 16 years and weighing from 7 to 168 lbs, were randomly administered PREVICOX or the control (sham-dosed-pilled) for the control of postoperative pain and inflammation associated with soft-tissue surgical procedures such as abdominal surgery (e.g., ovariostereotomy, abdominal cryptorchidectomy, splenectomy, cystostomy) or major external surgeries (e.g., mastectomy, skin tumor removal $\leq 8\text{ cm}$). The study demonstrated that PREVICOX-treated dogs had significantly lower need for rescue medication than the control (sham-dosed-pilled) in controlling postoperative pain and inflammation associated with soft-surgery. A multi-center field study with 226 client-owned dogs of various breeds, and ranging in age from 1 to 11.9 years in the PREVICOX-treated groups and 0.7 to 17 years in the control group was conducted. Dogs were randomly assigned to either the PREVICOX or the control (sham-dosed-pilled) group for the control of postoperative pain and inflammation associated with orthopedic surgery. Surgery to repair a ruptured cruciate ligament included the following stabilization procedures: fabellar suture and/or imbrication, fibular head transposition, tibial plateau leveling osteotomy (TPLO), and "over the top" technique. The study (n = 220 for effectiveness) demonstrated that PREVICOX-treated dogs had significantly lower need for rescue medication than the control (sham-dosed-pilled) in controlling postoperative pain and inflammation associated with orthopedic surgery.

Animal Safety: In a targeted animal safety study, firocoxib was administered orally to healthy adult Beagle dogs (eight dogs per group) at 5, 15, and 25 mg/kg (1, 3, and 5 times the recommended total daily dose) for 180 days. At the indicated dose of 5 mg/kg, there were no treatment-related adverse events. Decreased appetite, vomiting, and diarrhea were seen in dogs in all dose groups, including unmedicated controls, although vomiting and diarrhea were seen more often in dogs in the 5X dose group. One dog in the 3X dose group was diagnosed with juvenile polyarthritis of unknown etiology after exhibiting recurrent episodes of vomiting and diarrhea, lethargy, pain, anorexia, ataxia, proprioceptive deficits, decreased albumin levels, decreased and then elevated platelet counts, increased bleeding times, and elevated liver enzymes. On histopathologic examination, a mild ileal ulcer was found in one 5X dog. This dog also had a decreased serum albumin which returned to normal by study completion. One control and three 5X dogs had focal areas of inflammation in the pylorus or small intestine. Vacuolization without inflammatory cell infiltrates was noted in the thalamic region of the brain in three control, one 3X, and three 5X dogs. Mean ALP was within the normal range for all groups but was greater in the 3X and 5X dose groups than in the control group. Transient decreases in serum albumin were seen in multiple animals in the 3X and 5X dose groups, and in one control animal. In a separate safety study, firocoxib was administered orally to healthy juvenile (10-13 weeks of age) Beagle dogs at 5, 15, and 25 mg/kg (1, 3, and 5 times the recommended total daily dose) for 180 days. At the indicated (1X) dose of 5 mg/kg, on histopathologic examination, three out of six dogs had minimal periportal hepatic fatty change. On histopathologic examination, one control, one 1X, and two 5X dogs had diffuse slight hepatic fatty change. These animals showed no clinical signs and had no liver enzyme elevations. In the 3X dose group, one dog was euthanized because of poor clinical condition (Day 63). This dog also had a mildly decreased serum albumin. At study completion, out of five surviving and clinically normal 3X dogs, three had minimal periportal hepatic fatty change. Of twelve dogs in the 5X dose group, one died (Day 82) and three moribund dogs were euthanized (Days 38, 78, and 79) because of anorexia, poor weight gain, depression, and in one dog, vomiting. One of the euthanized dogs had ingested a rope toy. Two of these 5X dogs had mildly elevated liver enzymes. At necropsy all five of the dogs that died or were euthanized had moderate periportal or severe panzonal hepatic fatty change; two had duodenal ulceration; and two had pancreatic edema. Of two other clinically normal 5X dogs (out of four euthanized as comparators to the clinically affected dogs), one had slight and one had moderate periportal hepatic fatty change. Drug treatment was discontinued for four dogs in the 5X group. These dogs survived the remaining 14 weeks of the study. On average, the dogs in the 3X and 5X dose groups did not gain as much weight as control dogs. Rate of weight gain was measured (instead of weight loss) because these were young growing dogs. Thalamic vacuolization was seen in three of six dogs in the 3X dose group, five of twelve dogs in the 5X dose group, and to a lesser degree in two unmedicated controls. Diarrhea was seen in all dose groups, including unmedicated controls. In a separate dose tolerance safety study involving a total of six dogs (two control dogs and four treated dogs), firocoxib was administered to four healthy adult Beagle dogs at 50 mg/kg (ten times the recommended daily dose) for twenty-two days. All dogs survived to the end of the study. Three of the four treated dogs developed small intestinal erosion or ulceration. Treated dogs that developed small intestinal erosion or ulceration had a higher incidence of vomiting, diarrhea, and decreased food consumption than control dogs. One of these dogs had severe duodenal ulceration, with hepatic fatty change and associated vomiting, diarrhea, anorexia, weight loss, ketonuria, and mild elevations in AST and ALT. All four treated dogs exhibited progressively decreasing serum albumin that, with the exception of one dog that developed hypoalbuminemia, remained within normal range. Mild weight loss also occurred in the treated group. One of the two control dogs and three of the four treated dogs exhibited transient increases in ALP that remained within normal range.

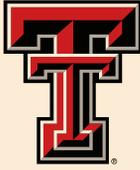
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1-877-217-3543

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Rev. 09-2015



Texas Tech Begins Accepting Student Applications

Texas Tech University School of Veterinary Medicine has received a letter of reasonable assurance of accreditation from the American Veterinary Medical Association's Council on Education and will proceed with accepting applicants for the first class, to be enrolled in fall 2021. The letter of reasonable assurance of accreditation is expected to be followed by provisional accreditation within the next year and then by full accreditation by the time the first class graduates in 2025.

The Texas Tech program will be centered in Amarillo, 120 miles north of the main campus in Lubbock. A 185,000-square-foot, two-story academic building is under construction in Amarillo, and a large-animal facility is located two miles away. About 30 faculty and staff members have been hired to date.

notebook

Sled Dogs Are Closely Related to 9,500-Year-Old "Ancient Dog"

Dogs play an important role in human life all over the world—whether as family members or as working animals. But where the dog comes from and how old various groups of dogs are is still a bit of a mystery.

Now, light has been shed on the origin of the sled dog, also known as the sledge dog. In a new study published in *Science*, researchers from around the world show that the sled dog is older and adapted to Arctic conditions much earlier than originally thought.

"We have extracted DNA from a 9,500-year-old dog from the Siberian island of Zhokhov, which the dog is named after. Based on that DNA, we have sequenced the oldest complete dog genome to date, and the results show an extremely early diversification of dogs into types of sledge dogs," said one of the two first authors of the study, PhD student Mikkel Sinding of the GLOBE Institute.

Until now, it has been the common belief that the 9,500-year-old Siberian dog, Zhokhov, was a kind of ancient dog—one of the earliest domesticated dogs and a version of the common origin of all dogs. But according to the new study, modern sled dogs such as the Siberian husky, the Alaskan malamute, and the Greenland sledge dog share the major part of their genome with Zhokhov.

"This means that modern sledge dogs and Zhokhov had the same common origin in Siberia more than 9,500 years ago. Until now, we have thought that sledge dogs were only 2,000–3,000 years old," said the other first author, Associate Professor Shyam Gopalakrishnan of the GLOBE Institute.

QUOTE OF THE MONTH

"Someone's sitting in the shade today because someone planted a tree a long time ago."

—Warren Buffet





Birth of Cloned Przewalski's Foal Offers Genetic Diversity

In August 2020, the world's first successfully cloned Przewalski's horse was born in Texas at Timber Creek Veterinary. The foal, born to a domestic surrogate mother, is a clone of a male Przewalski's horse whose DNA was cryopreserved 40 years ago at the San Diego Zoo Global Frozen Zoo. The colt represents the first time this species has been cloned, and scientists indicate it could provide an important model for future conservation efforts.

The new cloned foal was named Kurt, in honor of Kurt Benirschke, MD, who was instrumental in founding the Frozen Zoo and the conservation research program at San Diego Zoo Global. The foal, who will be moved to the San Diego Zoo Safari Park to be integrated into a breeding herd of his species once he is older, was cloned from a cell line stored in the Frozen Zoo since 1980. The original stallion was born in 1975 in the UK, was transferred to the US in 1978, and lived until 1998. As the new clone matures and successfully breeds, he can provide a valuable infusion of genetic diversity for the Przewalski's horse population, the zoo reports.

"This colt is expected to be one of the most genetically important individuals of his species," said Bob Wiese, PhD, chief life sciences officer at San Diego Zoo Global. "We are hopeful that he will bring back genetic variation important for the future of the Przewalski's horse population."

Formerly extinct in the wild, the Przewalski's horse has survived for the past 40 years almost entirely in zoos around the world, and all of the surviving horses are related to 12 Przewalski's horses born in the wild. While ongoing reintroductions since the 1990s have established several wild herds on grasslands in China and Mongolia, maintaining genetic variation is likely to be an important part of ensuring the species' survival in the future.

"This new Przewalski's colt was born fully healthy and reproductively normal," said Shawn Walker, chief science officer at project partner ViaGen Equine. "He is head butting and kicking, when his space is challenged, and he is demanding milk supply from his surrogate mother."

Organizations Partner to Release Suicide Resource for Veterinary Workplaces

The American Foundation for Suicide Prevention (AFSP) and the American Veterinary Medical Association, in partnership with the National Association of Veterinary Technicians in America, the Veterinary Hospital Managers Association, and the Veterinary Medical Association Executives, released a new resource, *After a Suicide: A Guide for Veterinary Workplaces*. The free guide will help support veterinary workplaces in the aftermath of an employee's death by suicide.

"Supporting veterinary medical professionals in the aftermath of a colleague's suicide is vital. Because suicide loss survivors can develop significant grief and even physical and mental health issues if not appropriately supported, postvention is a critical step and is actually part of suicide prevention. The appropriate handling of the aftermath of a suicide in a veterinary office can pave the way for a workplace culture that is smart about mental health," said Christine Moutier, MD, AFSP chief medical officer.

Developed by experts in veterinary medicine and suicide prevention and survivors of suicide loss in the veterinary medical community, the guide includes best practices for how workplace leaders and staff should respond in the immediate aftermath of a suicide, guidance on helping the workplace community grieve and cope in the short- and long-term, tips on working with media and community partners, information on how to safely memorialize employees, guidance on how to identify and support members of the community who may be vulnerable, and ways to reduce the risk of suicide contagion. View the guide at afsp.org/veterinarians.

New Tool Aids Diagnosis of Cushing’s Syndrome in Dogs

Researchers on the VetCompass team at the University of London’s Royal Veterinary College have developed a tool that can be used to evaluate the risk of Cushing’s syndrome in dogs. The freely accessible tool is designed to be used in practices to support decisionmaking and increase confidence in diagnosis.

Cushing’s syndrome can be difficult to diagnose because the clinical signs are often nonspecific to the disease, the researchers report. Additionally, there is no single, highly accurate test for Cushing’s syndrome and these tests are often overused, making results difficult to interpret.

The researchers developed the tool to be used in practices to assess individual patient risks before confirmatory testing. Using statistical methods, it’s made up of 10 “predictive” factors for Cushing’s syndrome. The tool reports the probability of an individual dog having Cushing’s syndrome based on these factors.

The tool is available as a free download at rvc.ac.uk/media/default/vetcompass/documents/cushings-prediction-tool.pdf.

Human-Animal Bond Expert Shares Insights

At the 2020 virtual Purdue Veterinary Conference, the Elanco Human-Animal Bond Lecture featured a Zoom presentation by Zenithson Ng, DVM, MS, DABVP (Canine/Feline), clinical associate professor of canine and feline primary care at the University of Tennessee College of Veterinary Medicine.



Zenithson Ng, DVM, MS, DABVP (Canine/Feline), clinical associate professor of canine and feline primary care at the University of Tennessee College of Veterinary Medicine.

Ng began his presentation, “A Day in the Life of a Service Dog: A Welfare Perspective,” by sharing a documentary clip of interviews with several service dog owners. The full documentary, *Pick of the Litter*, is available to stream on Netflix. He went on to explain how dogs are chosen for this life of service as soon as they are born and gave examples of the work that service dogs can perform in the special-needs community.

Purdue veterinary medicine researchers, as part of the Purdue University Center for the Human-Animal Bond, also continue to conduct collaborative studies aimed at understanding the effects of animal-assisted intervention for autism.



Skull Injuries in Companion Animals

A survey study of traumatic skull fractures (TSFs) in dogs and cats sheds light on the clinical and imaging features of the relatively frequent injury.

Researchers from North Carolina State University used computed tomography to compare neurological deficits, fracture locations, and cause of trauma in 91 dogs and 95 cats. Among the findings, the cranial vault was affected more frequently in dogs, while the face and base of the cranium were affected more often in cats.

Cats experienced multiple fractures more frequently, while all animals with TSFs in the cranial vault were more likely to develop neurological signs, especially when there were depressed fractures. Those with TSFs in the facial region were less likely to have neurological signs.

The study appears in the *Journal of Veterinary Internal Medicine*.



An Active Lifestyle Reduces Fearfulness in Dogs

According to a behavioral survey of nearly 14,000 dogs conducted at the University of Helsinki, the more dogs are engaged in activities and the more diverse experiences and canine friends they have, the less fearful they are in new situations and environments. Genes also play an important part, the researchers report. Dogs who were engaged in activities the most and were actively trained were found to be the least fearful.

The survey indicates that insufficient socialization of puppies to various situations and new environments in particular has a strong link with fearfulness related to novel situations, loud noises, and different walking surfaces, such as slippery surfaces, transparent stairs, or metal grilles. On the other hand, the company of other dogs reduced the occurrence of nonsocial fear. Fear of fireworks and surfaces was more prevalent among the dogs of first-time dog owners, while differences were also seen between rural and urban dogs.

Furthermore, as suggested by prior research, the study demonstrated that nonsocial fearfulness also is more common in sterilized females and small dogs. Being fearful of slippery or otherwise unfamiliar surfaces was also associated with a generally fearful disposition in dogs.

Significant differences between breeds were identified in the study, with Cairn terriers among the most fearful breeds and Chinese crested dogs among the least fearful. However, variance was seen between different nonsocial fears in the fearfulness of individual breeds. For instance, Welsh corgi pembrokes expressed a lot of noise sensitivity but little fearfulness of surfaces. At the same time, the latter was common among Lapponian herders, miniature schnauzers, Chihuahuas, and Labrador retrievers, while noise sensitivity was less so.

“The breed-specific differences support the idea that fearfulness is inherited. In other words, breeding choices matter, even without knowing the exact mechanisms of inheritance. However, this study offers dog owners tools and support for previous notions related to improving the wellbeing of their dogs. Diverse socialization in puppyhood and an active lifestyle can significantly reduce social and nonsocial fearfulness,” said Hannes Lohi, PhD, from the Faculty of Veterinary Medicine and Faculty of Medicine, University of Helsinki.

UK's Veterinary Women's Health Month Highlights Health Topics

The UK-based organization Veterinary Woman (veterinarywoman.co.uk) highlighted a variety of women's health topics in October. The initiative featured a series of live interviews, articles, and surveys that explored the impact of breast cancer, menopause, infertility, and baby loss on all genders, and how the veterinary profession can better support these individuals in the workplace.

The October campaign included free-access articles and live online sessions with a variety of representatives in conjunction with Breast Cancer

Awareness Month, Baby-Loss Awareness Week, World Menopause Day, and National Fertility Week.

Liz Barton, MA, VetMB, MRCVS, editor of the Veterinary Woman site, said, “I have been incredibly moved to see the deep empathy and encouragement amongst veterinary colleagues beginning to open up about the impact of health challenges, particularly at work. When I realized the campaigns in October were topics we need to talk about more as a profession, it seemed right to use this as a platform to tackle some of the hidden, emotive health challenges we bear throughout our life and work.”

Tufts University to Lead Program to Reduce Risk of Zoonotic Viral Spillover, Spread

Tufts University will lead a \$100 million, five-year program to understand and address threats posed by zoonotic viral diseases that can “spill over” from animals to humans, such as SARS-CoV-2, in an effort to reduce risk of infection, amplification, and spread, the United States Agency for International Development announced.

Strategies to Prevent Spillover (STOP Spillover), which builds on Tufts’s expertise in One Health, will involve wildlife- and human-disease experts from the university and organizations across the globe. The program aims to enhance the capacity of local, national, and regional institutions in countries across Africa and Asia to understand factors that contribute to the risk of zoonotic spillover, develop and implement measures to reduce early risk of spillover and spread, and quickly identify and respond to spillover events.

“The transmission of zoonotic viral diseases to humans can cost lives, disrupt economies, and create lasting human health and societal problems, as we’ve seen most recently with the impact of COVID-19,” said Deborah T. Kochevar, DVM, PhD, DACVCP, the STOP Spillover program director and a faculty member at Tufts. “Viral zoonotic disease outbreaks are becoming increasingly frequent. In our approach, it is not enough to know what to do to reduce viral spillover risks. We must also work with partners to institutionalize knowledge in existing systems, adapt learning to the local context, and continuously expand upon newfound expertise,” she added.

Veterinary College Scientists Pinpoint Genes That Drive Ovarian Cancer

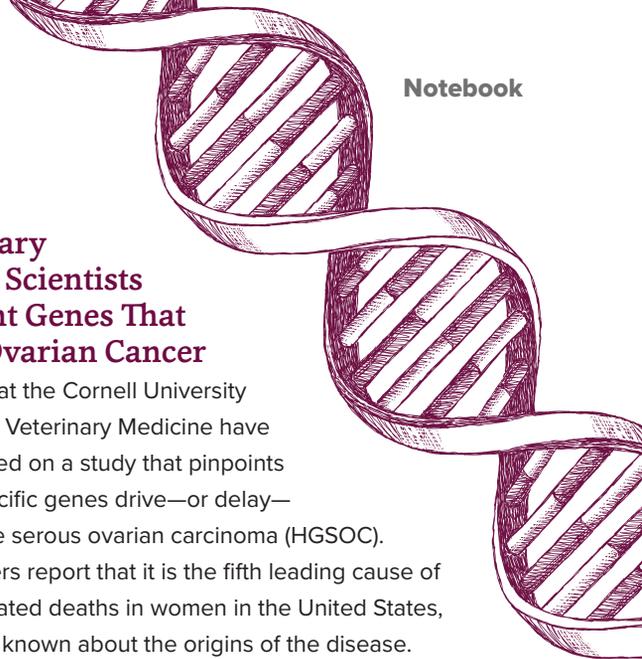
Scientists at the Cornell University College of Veterinary Medicine have collaborated on a study that pinpoints which specific genes drive—or delay—high-grade serous ovarian carcinoma (HGSOC). Researchers report that it is the fifth leading cause of cancer-related deaths in women in the United States, yet little is known about the origins of the disease.

“We’ve taken the enormous collection of genomic mutation data that’s been mined on cancer genetics and tried to make functional sense of it,” said John Schimenti, PhD, professor of genetics in the Department of Biomedical Sciences and senior author of the study, which was recently published in *Cell Reports*.

Cancer researchers have known for a while that the disease is almost always caused by multiple genetic “hits.” One mutation alone does not turn a cell cancerous; generally at least two or three are required, and often, different combinations of genes can cause the same cancer. To address these complexities, the researchers wanted to test combinations of possible genetic suspects and then parse out which of the many associated mutations were sparking the cancer.

The group used the Cancer Genome Atlas, an international collaborative database that compiles the genetic information from patient tumor samples and the mutated genes associated with them. They took a list of 20 genes known to mutate in HGSOC and, using CRISPR gene-editing technology, created random combinations of these mutations in cultured cells from the ovary surface, including regular epithelial cells and epithelial stem cells, to see which cell type was more susceptible to the mutations.

The study revealed what the team had originally suspected—that ovarian surface stem cells were more apt to become cancerous when hit with mutations. They also unexpectedly discovered genes that had the opposite effect. Knowing which are the cells of origin and which genes are necessary in initiating this highly aggressive form of ovarian cancer can be powerful information, for both ovarian and other types of cancers, researchers said.





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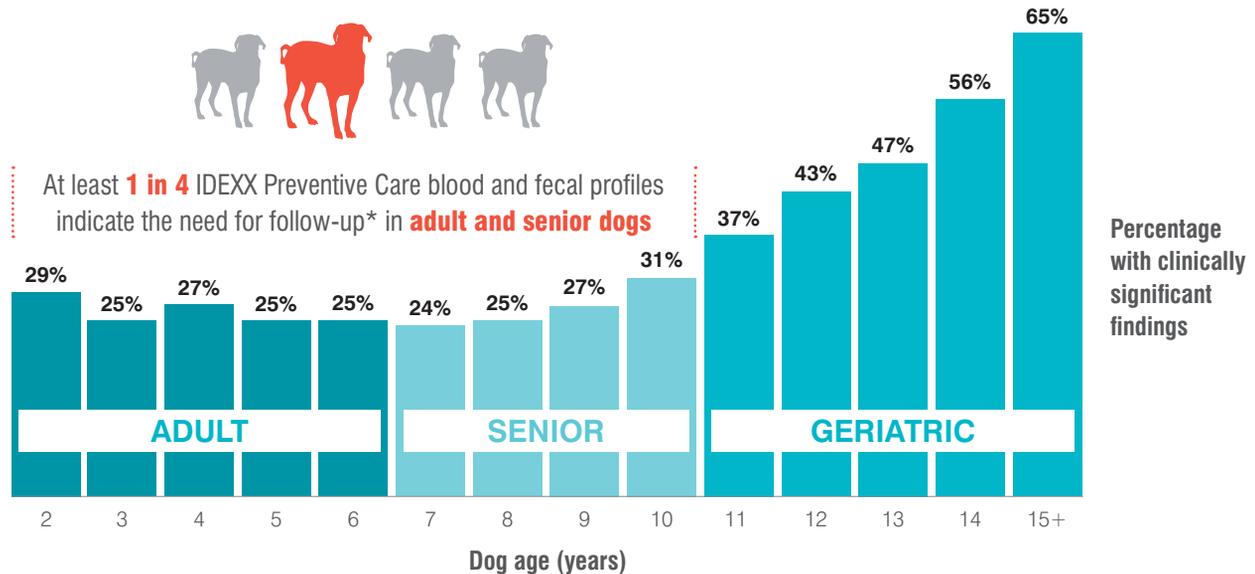
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New evidence supports the value of preventive care profiles on all adult dogs

Preventive care profiles aren't just for senior and geriatric patients



Dogs as young as 2 years of age had clinically significant findings based on results of preventive care bloodwork and fecal testing¹

Of the nearly 30,000 canine profiles included in this analysis, there was little variation in the rate of clinically significant findings between adult dogs and senior dogs.

The study was based on an analysis of IDEXX Preventive Care profiles (including the following categories: Chem 22 including the IDEXX SDMA[®] Test, IDEXX CBC testing with reticulocyte parameters, the Lab 4Dx[®] Plus Test, and Fecal Dx[®] antigen testing) run as part of wellness visits. While the number of clinically significant findings for each of these testing categories varied by age, all categories were important for adult, senior, and geriatric dogs.

These results are similar to a previous analysis that included cats as young as 2 years²

The previous analysis from more than a quarter of a million wellness visits that included a chemistry profile with an IDEXX SDMA[®] Test and a CBC, revealed significant findings required follow-up in:

- 1 in 7** adults (cats aged 2–8 years; dogs aged 3–6 years)
- 1 in 5** seniors (cats aged 9–13 years; dogs aged 7–10 years)
- 2 in 5** geriatrics (cats aged 14+ years; dogs aged 11+ years)

Routine preventive care testing has distinct medical benefits

There is ample evidence to support routine preventive care visits that include diagnostic testing. Results of routine bloodwork and fecal testing help veterinarians detect diseases and conditions, leading to earlier interventions that help patients of all ages live healthy lives for as long as possible. Once a veterinarian has baseline values, she/he can monitor trends and, if necessary, create individualized treatment plans. If no abnormality is detected, veterinarians and staff can—and should—celebrate the good news with clients. By communicating the value of every test result, practices reinforce the importance of routine wellness checks and the central role that clients play in the health of their pet. It's a win-win!

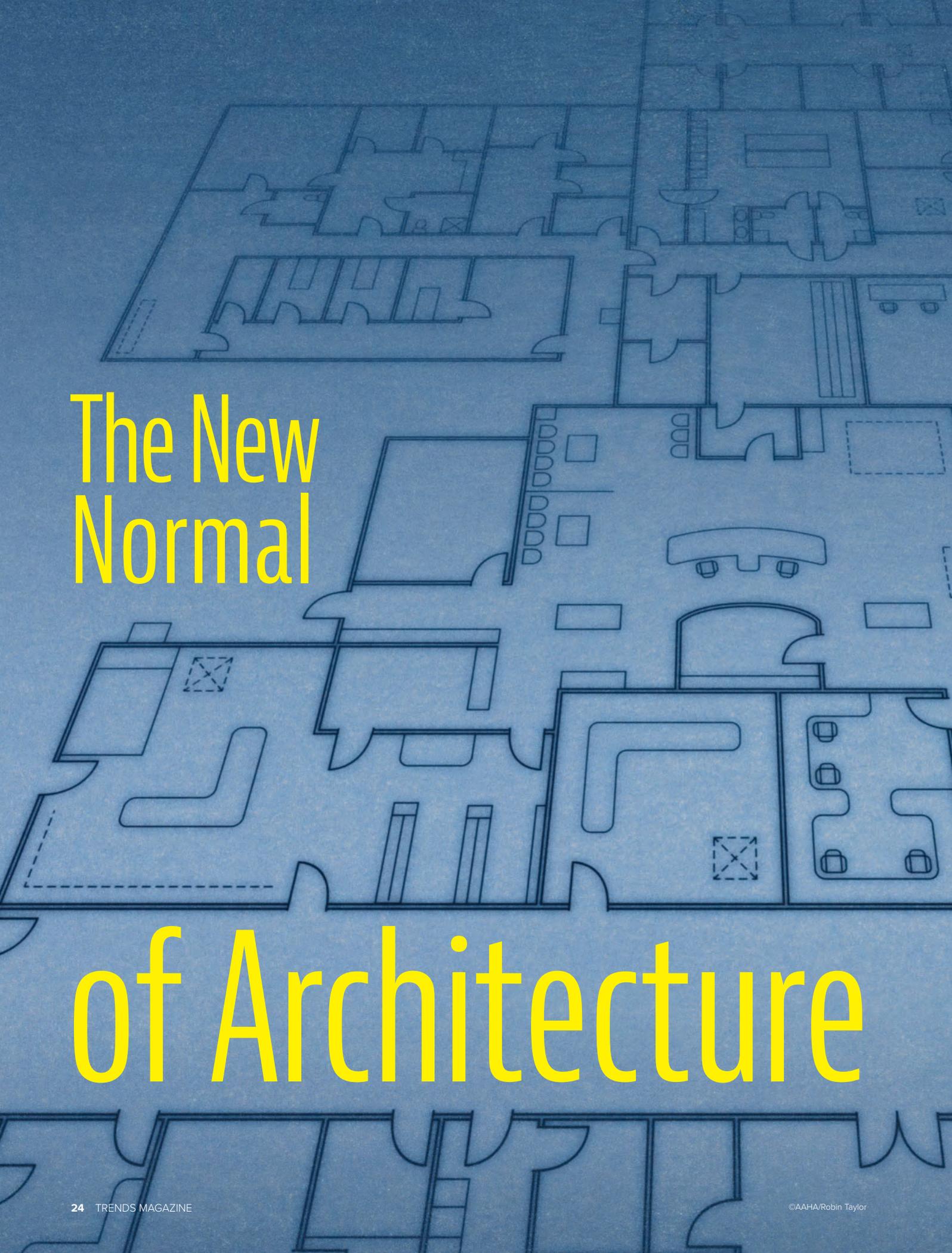
Review preventive care data and case studies at idexx.com/1in4

*Due to "clinically significant findings," which would indicate the need for follow-up, further consideration, or a change in action by the clinician. Clinical significance based on rules determined by an IDEXX veterinarian panel.

References

1. Data based on analyses of **29,795** canine wellness profiles (Chem 22 including IDEXX SDMA[®] Test, IDEXX CBC testing with reticulocyte parameters, the Lab 4Dx[®] Plus Test, and Fecal Dx[®] antigen testing) associated with wellness visits; testing performed at IDEXX Reference Laboratories on July 13, 2016–February 28, 2019. Represented U.S. regions by proportion of included profiles: Northeast (32.0%), South (41.3%), Midwest (17.4%), West (7.6%), and region not reported (1.7%).

2. Data on file at IDEXX Laboratories, Inc. Westbrook, Maine USA.

The background of the entire page is a light blue architectural floor plan. It shows a complex layout of rooms, corridors, and service areas. Some rooms contain furniture like desks, chairs, and tables. There are also dashed lines indicating specific areas or boundaries. The overall style is clean and technical.

The New
Normal

of Architecture

The Future of Hospital Design in a Post-Pandemic World

by Tony McReynolds

MELISSA MAGNUSON, DVM, HAD A BAD FEELING ABOUT COVID-19.

Magnuson owns AAHA-accredited Canobie Lake Veterinary Hospital in Windham, New Hampshire, where her alarm bells starting going off after meeting a client.



Melissa Magnuson, DVM, of Canobie Lake Veterinary Hospital in Windham, New Hampshire

It was early last March, a few weeks before lockdowns, curbside service, and working from home became the new normal. A woman brought her sick dog to the hospital for treatment. Both the receptionist who checked them in and the technician who took them back to an exam room thought something about her was off.

The technician tracked Magnuson down and told her about the woman and her red-rimmed eyes, apparent exhaustion, and general end-of-her-rope impatience. And about her nonstop coughing.

“She looks really, really ill,” the tech said.

So Magnuson donned an N95 mask and entered the exam room. The patient looked every bit as bad as advertised. Their conversation went something like this:

Magnuson: “You’re sick. You should be at home.”

Client: “My dog is sick. You need to take care of her.”

Magnuson: “I’ll take care of your dog, but you’re going to put on a mask first.”

Client: “I’m not wearing a mask. And you will look after my dog.”

Magnuson: “If you don’t put on a mask, you will leave.”

Client: “I will not put on a mask and I will not leave, and you will take care of my dog.”

Magnuson: “If you do not leave, I will call the police.”

At that point, the woman agreed to don a mask.

“I told her I was going to stand outside in the hall and take the information about her dog through the closed door,” Magnuson said. “If I had to go attend to something else, I had someone in a mask stand guard outside the door. She wasn’t allowed to leave the room. She wasn’t allowed to go to the bathroom.”

Magnuson said she didn’t know what the woman was sick with, “but it sure looked like COVID to me.” It was more than a guess. Magnuson had a background in infectious disease and, before getting her DVM, worked in vaccine development.

The dog was a West Highland terrier with a skin issue that turned out to be a complication arising from previously diagnosed Cushing’s disease. As soon as the appointment was over and the woman left via the back door—to keep her from coming in contact with any other clients or staff—Magnuson had masked and gloved staffers disinfect the room and anything else in the hospital the woman might have come in contact with.

“The next day,” said Magnuson, “we went curbside.”

She also instituted strict safety protocols for staff and clients. Her staff thought she’d gone insane, “completely over the top.” But within a month, the pandemic was on, and across the country, other hospitals were doing the same.

A Pandemic-Proof Hospital by Happenstance

Magnuson’s previous work with infectious disease meant the hospital had already been close to pandemic-proof. Just a little over a year before that client walked through the door with her terrier, Magnuson had worked in collaboration with architect Heather Lewis, AIA, NCARB, to design a safe hospital from the ground up. Lewis is a partner at Animal Arts, a Boulder, Colorado-based architecture firm that specializes in designing veterinary hospitals and animal shelters.

Magnuson and Lewis decided on details that Lewis says will become standard across the industry in post-COVID hospital design. The lighting and the sinks have hands-free motion sensors, and the doors either push open or have

lever handles that are easily openable with an elbow. Once the pandemic got into full swing, Magnuson said, “I found out we had a hospital that was really great in a pandemic, kind of by mistake.”

Lewis says veterinary practices had to pivot fast last spring. “The transition to offering curbside service taught us two important lessons: One was how to temporarily pandemic-proof a hospital.”

The other was that there’s always a chance another pandemic will strike.

As a result, Lewis says, Animal Arts’ clients are clamoring for ideas on how to prepare their practices to safely weather a future infectious disease outbreak. Those ideas include building a completely new hospital or retrofitting their current hospital, incorporating some of the details used in Magnuson’s hospital. The design firm has been taking note of what’s been working for hospitals this year and looking for ways to apply those lessons in ways that will pandemic-proof veterinary hospitals in case the unthinkable happens again.

Making use of indoor/outdoor space is an idea that works well in regions where the weather will accommodate it. The transition to curbside got clients and staff used to doing check-ins and pickups in the hospital parking lot, so, Lewis says, it’s not a big leap to start using indoor/outdoor exam rooms. The client can then be present during the exam while maintaining social distance, and it’s great anytime for fearful or anxious dogs.

Animal Arts works with Fear Free to design hospitals to their specifications, and indoor/outdoor exam rooms are a staple of Fear Free design. They’re also good for euthanasia. It’s a good example of a pandemic-proof design element that adds greater flexibility and functionality to a hospital in general.

The same goes for outdoor waiting areas, which make social distancing easier and can supplement the lobby



Heather Lewis, AIA, NCARB, of Colorado-based architecture firm Animal Arts

during nonpandemic times. The outside can also be a more pleasant place to wait. Think porches, Lewis says.

Another small but significant detail we'll see more of in the future is sinks. "People have gotten used to washing their hands," Lewis said. "We'll likely see more sinks in exam rooms again."

Flexibility

Going curbside taught us many things, but the most significant may be the importance of being flexible.

The key element to COVID-inspired hospital design is flexibility, says Lewis. Especially when it comes to designing multipurpose workspaces, or flex spaces, as Lewis calls them, inside the hospital.

Take the front-desk area. More space means receptionists can easily socially distance, but if your hospital can't spare the extra square footage, a wheeled desk can easily accommodate social distancing between clients and staff.

Wheels help in treatment areas, too. "You actually don't need to have more space," Lewis said. "You can simply put one or more of your workstations on wheels." To

maintain safe distance, just roll the mobile station to another part of the room.

Also consider either repurposing or adding an oversize examination room that's close to the treatment area. "When there's no pandemic, you use it as a regular exam room. When there's a pandemic and you've had to lock your clients out, you can use it as an extra treatment space."

Lewis says this is a great solution for practices that have "a million clients dropping off pets for surgery at eight in the morning and picking them up again at five in the evening but have nothing going on at 11:30 a.m. This flex exam space allows you to do more procedures during that dead time." Dentals, for example, with a dental treatment station on—what else?—wheels.

Pandemic-friendly flex space is also budget friendly. So it's a good way to keep construction costs down while redesigning hospitals with future pandemics in mind.

Mud Rooms and More

When more employees work from home, especially support staff, it frees up hospital space for virtual care stations. Lewis says Animal Arts is designing spaces that



This photo, provided by Animal Arts, shows a proposed drive-through exam or drop-off area to extend the curbside service concept beyond the current health crisis.

include rooms dedicated to telemedicine. “[Teams] can actually do more work and generate more revenue in the same square footage. That’s pretty awesome!”

Many hospitals have rigged up a mud room ad hoc, anywhere they could find the space. Lewis recommends locating a mud room in a space dedicated to entry and exit, which “gives you a place to store boots, winter clothes, and log into a computer during normal times. It also allows for safe entry and temperature checks in future pandemics.” Animal Arts is now recommending mud rooms as a standard design element.

An exam room specifically designed as an isolation room with air exhausted to the outside for pets and clients who may have an infectious disease is also a smart idea. In normal times, it’s simply another exam room.

Where to find all this extra space? Lewis advocates eliminating a children’s play area, which is tough to keep clean and almost impossible for social distancing. “Kids are pretty germey and they touch all kinds of things,” she said. And hospital staff certainly don’t want to clean things those kids touch. “Play areas?” Lewis said. “I think they’re dead.”

HVAC Is Its Own Thing

Hospital heating and cooling systems are a little more complicated than putting a desk on wheels. We know that COVID is spread through respiratory droplets sprayed into the air when people sneeze, cough, talk, or even sing. Those droplets can linger in the air, like dust or a fine mist, for much longer than previously suspected in the form of aerosols, which are droplets smaller than five microns (a micron is equal to one-millionth of a meter).

The possibility that COVID is aerosolized means virus particles can float in the air and get sucked into ventilation systems, where they can be recirculated through heating, ventilation, and air conditioning (HVAC) systems and theoretically contaminate whole buildings.

The US Centers for Disease Control and Prevention confirmed in October that COVID can be spread through aerosolization, and hospital administrators are almost universally concerned about ventilation.

Mechanical engineer Carrie Pepperdine says most animal hospitals already have decent HVAC systems due to



This photo, provided by Animal Arts, shows an example of an isolation vestibule that is connected to the isolation room and also has outside access. According to Lewis, “This meets the normal isolation needs for a hospital, but also works well to admit pets that might have been exposed to a disease such as COVID-19 that may be a risk to staff.”

concerns about containing smells and other airborne pathogens that come with the practice of veterinary healthcare. So existing hospitals are probably in a good position.

Pepperdine designs HVAC and plumbing systems for 20/20 Engineering, a Louisville, Colorado, mechanical and plumbing engineering firm that partners with Animal Arts in the design of their clients’ ventilation systems in accordance with guidelines from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

The kind of filters you use makes a big difference, too.

Minimum Efficiency Reporting Value (MERV) is a system used to evaluate the efficiency of an air filter based on how effective it is at catching particles of varying sizes. “MERV-7 is the standard minimum filtration,” Pepperdine said. “ASHRAE leans more toward going with a MERV-13 filter in conjunction with increasing the ventilation rate.”

That means hospitals might want to look into upgrading their filters. “MERV-13 filters are around 90% efficient at removing contaminants,” said Jerry Oglesbee, an HVAC expert at 20/20. He compares that to an N95 mask, which is 95% efficient.

High-efficiency particulate air (HEPA) filters are the gold standard for air filtration: They are 99.97% effective at removing dust, pollen, mold, bacteria, and any airborne pathogens 0.3 microns in diameter.

“If you can’t design everything right from the ground up, putting in a standalone air treatment unit is not a bad idea.”

—HEATHER LEWIS, AIA, NCARB, ANIMAL ARTS

That’s pretty good, but possibly not good enough: “If [COVID] is airborne, it’s most likely coming through at a slightly smaller size,” said Pepperdine. But like much of the science surrounding COVID, “they don’t know for sure.”

The downside to HEPA filtration? “HEPA filters are way more expensive,” Oglesbee said. Plus, it requires more power to run the fans, so there’s an additional energy cost. Because of the combined costs, 20/20 usually only specifies the use of HEPA filters in surgery suites and operating rooms at specialty hospitals.

Another consideration is how long the virus lives on different surfaces, on which there’s currently no clear consensus. Oglesbee’s frustration is apparent: “That’s been all over the map [over] the past few months.” He said even if COVID can’t get through the HEPA filtration, “that doesn’t mean [the HEPA filter] isn’t itself a contaminated surface that needs attention.”

In the meantime, there are low-cost precautions that hospitals can take.

Pepperdine says one such option would be to change out or upgrade air filters. Another is to make sure the outside air dampers are set to optimize their ventilation rate. “Most likely, hospitals already have this capability in place,” she added, but she recommends hiring HVAC professionals to do it.

The good news is, those are precautions. Pepperdine says that if your HVAC system is up to date and regularly maintained, you probably don’t have to worry—what you have in place is probably fine.

But if you’re still worried about aerosolization and you feel the need to do something, Pepperdine says the easiest thing you can do is run your exhaust fans and air conditioning all the time, even when no one’s there.

Lewis says air treatment systems that utilize ultraviolet (UV) light to kill viruses are another option for hospitals.

“These combine UV germicidal treatment as well as some ionization of the air,” Lewis said. “What’s cool about these is that they can either be integrated with the HVAC system, or purchased as just a room air cleaner.” But using one, she added, is like opening a window. It’s a stop-gap measure, though a cost-effective one for hospitals on a budget. “If you can’t design everything right from the ground up, putting in a standalone air treatment unit is not a bad idea.”

Pandemic-Proofing Existing Hospitals

Retrofitting to pandemic-proof your existing animal hospital is also an option.

Birmingham, Alabama–based Southern Veterinary Partners (SVP), a network of 165 regional veterinary hospitals, isn’t doing any ground-up construction at present.

Neal NeSmith, CCIM, SVP’s real estate development lead, said, “We’re working with Animal Arts on renovation of our existing hospitals.” That means working with the spaces they already have to identify opportunities to



An example of a touchless handwashing station.



This photo, provided by Animal Arts, shows an example of an exam room that is a bit larger than normal to allow for social distancing.

incorporate social distancing.

Like many hospitals, SVP hospitals are still mostly curbside. NeSmith says the goal going forward, once clients are admitted back inside, is to limit the amount of time they spend in the building.

Lewis says most of her work with SVP involves working to provide them with more examination rooms. As far as pandemic-proofing an existing hospital, Lewis said, “The more clients you can move into examination rooms, the fewer you have clogging up the lobby. Having more exam rooms gives hospitals much more flexibility.”

NeSmith says that largely involves identifying unused or underused spaces, such as storage rooms, that are suitable for retrofitting as exam rooms and where clients can be isolated once they’re allowed back into the building.

William Ratterree, DVM, DACVIM, DACVR, is chief executive officer of Fetch Specialty & Cancer Veterinary Centers, a thriving, family-owned group of three emergency and specialty hospitals in southwest Florida. He’s working with Animal Arts on a couple of ground-up construction projects that will incorporate many of the new changes inspired by COVID.

Ratterree says the biggest changes revolve around space.

There’s going to be a lot more of it.

“The exam rooms will be bigger to allow for social distancing, so everyone can be six feet apart,” Ratterree said. “We’re converting all the doors to automatic doors to decrease touchpoints. Reception areas will be larger to accommodate employees sitting at different stations.”

Several clients will be able to work with several client service representatives at the same time, while all are socially distanced. It will work a bit like a bank lobby, where customers interact with different tellers. He calls it an “open-field” lobby, with plenty of room for both clients and staff to spread out safely.

Ratterree is also working with Animal Arts to retrofit his current hospitals to accommodate these changes where possible. He says his most important goal in both the retrofitting and the new construction is to protect the hospital’s most important resource: “the staff.”

Melissa Magnuson can relate. Speaking of the client who wouldn’t leave, Magnuson said, “Her position was, ‘I don’t care how sick I am, I’m going to get my dog taken care of.’ My position was, ‘I need to take care of your dog, but I also need to take care of my staff and you’re not going to infect them.’”

But whether you’re talking retrofitting a hospital to pandemic-proof it from COVID or building a pandemic-proof hospital from the ground up to prepare for future viruses, Ratterree says one thing’s certain. “Our old way of ushering clients in and out of our veterinary hospitals has changed.”

Probably forever. ✧



Tony McReynolds is AAHA’s *NEWStat* editor.



Practice of the Year



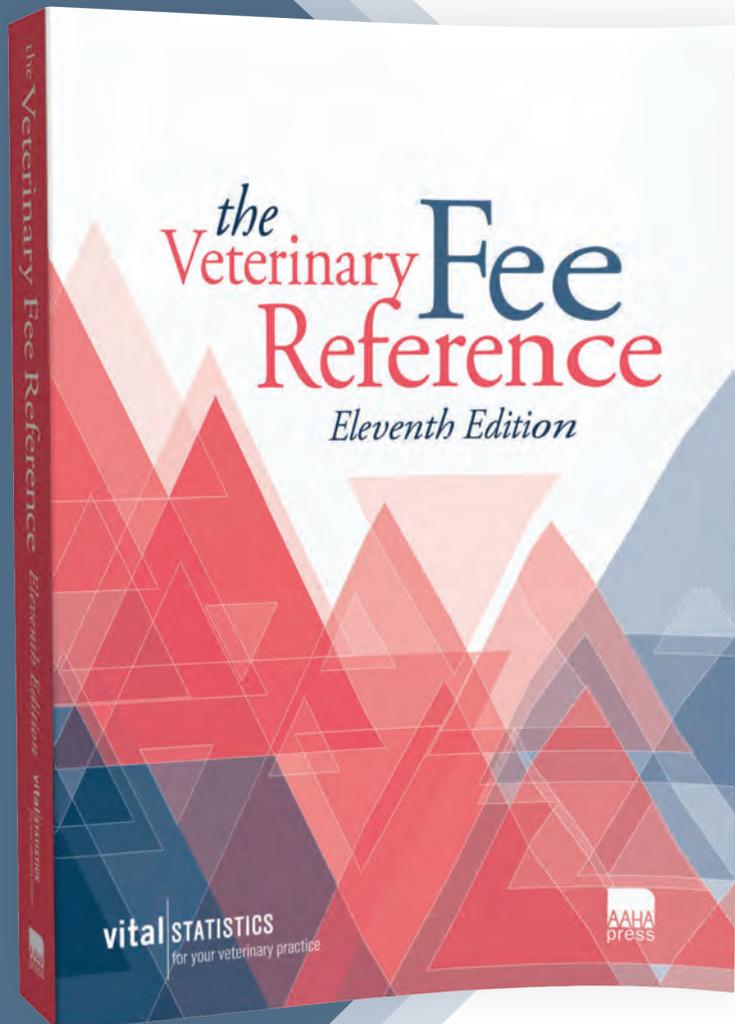
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2020 Update: Nutrition and Dilated Cardiomyopathy

Latest Information, Historical Perspective, Next Avenues of Investigation

by Roxanne Hawn

THE US FOOD AND DRUG ADMINISTRATION (FDA) first announced an investigation into reports of canine dilated cardiomyopathy (DCM) “in dogs eating certain pet foods” in July 2018, including in “breeds of dogs not previously known to have a genetic predisposition to the disease.” The FDA released additional updates in February and June 2019, followed by a long gap in official updates—leaving room for significant speculation and drama that resulted in several sources declining interviews for this article.

The FDA and others finally presented some updates at an invite-only event hosted at Kansas State University in

late September 2020. However, neither the FDA nor the university provided information from that event before press time.

Association, Not Causation Yet

Several researchers published a commentary in the *Journal of the American Veterinary Medical Association* in December 2018 entitled “Diet-Associated Dilated Cardiomyopathy in Dogs: What Do We Know?” At that time, they used careful language about the possibility of an association with diet and stated that “the apparent association may be spurious.”

When asked what has changed since then, one of the commentary's coauthors, Joshua Stern, DVM, DACVIM (Cardiology), at the University of California, Davis, said, "Well, I think what's changed to me is that research has continued in this area. Case numbers have continued to climb, and associations have been found now in multiple different environments/research studies. And so I think the big thing that's changed to me is this idea that this could just be spurious has kind of gone out the window. . . . I just don't believe that it's spurious anymore. I think it's truly associated to diet. But the cause of that association, we don't know, right? I'm not saying that it isn't possible that the bags of these dog foods got contaminated by something in a warehouse and that it has nothing to do with the formulation. But I think the link here is the dog food. And we need to figure out why."

Understanding why should narrow what's currently a wide net of diets and diet commonalities. That wide net of brands and ingredients spurs frustration, even outrage, from manufacturers, retailers, and others. It also leaves veterinary practitioners at a loss about what to tell clients to avoid.

"I think it's likely that not every diet that meets those characteristics is a high-risk diet," Stern said, "but we don't yet have a way to prioritize what diets are high or low risk within the group of diets that we consider to be suspect."

According to *Pet Food in the US, Fifteenth Edition*, published by Packaged Facts in July 2020, "Given the shadow hanging over grain-free pet food, it's not surprising to see an opportunistic swing back to grain-inclusive foods, including superpremium pet food recipes featuring grains." The report also mentions that "the pendulum may also be swinging back to pet food formulations that are science-based and/or veterinary diets" and that "veterinarians are the most common impetus to pet food change, with 38% of dog owners and 31% of cat owners attributing veterinarian recommendation to a change in food." This veterinary sway is not unique to DCM concerns. Prior editions of the report have documented veterinary influence in pet food choices in general.

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is a professor emeritus of the Department of Medicine and Epidemiology at the University of California, Davis, and is a Veterinary Information Network consultant and editor. Kittleson was among the researchers who discovered the role of taurine deficiencies in DCM in both cats and dogs, going back to 1987. “It’s a recurring theme,” he said. “(1) DCM is found where it’s not expected, and (2) correcting the problem results in resolution or partial resolution of the DCM. So practitioners need to know this isn’t a new story but instead is an old story that is happening again.”

Other than cases in golden retrievers where low taurine may play a role, however, Kittleson says that “the problem doesn’t appear to be related to taurine deficiency.”

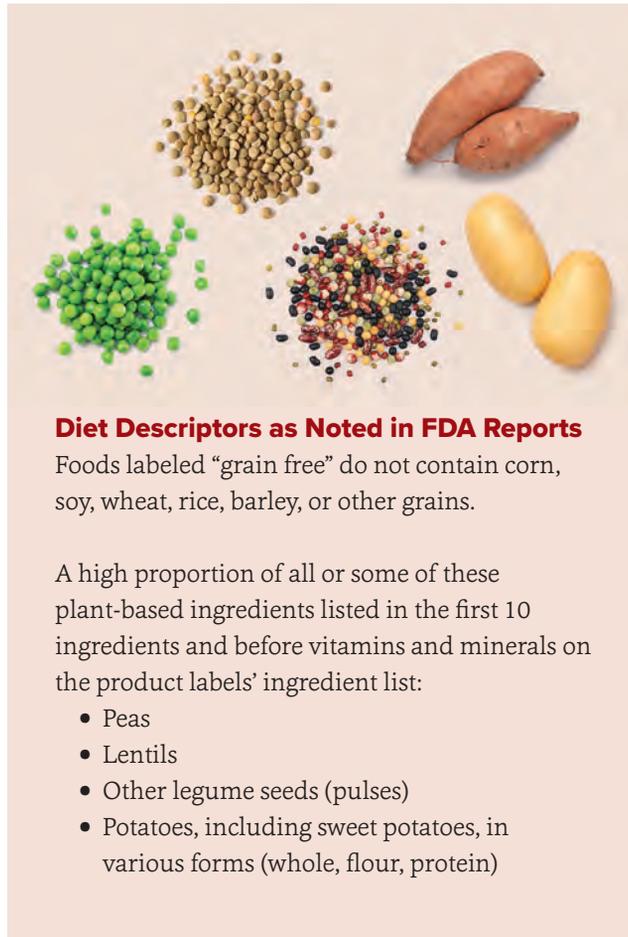
Another DCM researcher from those early days, Sherry Sanderson, DVM, PhD, DACVIM, DACVN, associate professor at the University of Georgia, followed dogs for longer than earlier studies and found that it takes longer for dogs to develop taurine deficiencies compared with cats and that diet could induce carnitine deficiencies that could cause DCM in dogs.

While Sanderson is not working on the current DCM situation, she described the differences and difficulties researchers face now: “First, in the 1990s, when we made the pet food company aware that we were seeing dogs developing DCM while consuming a specific diet, the pet food company did not deny that there was a problem. Instead, they invested more than \$500,000 into research to try to determine what was going on with their diet, and they corrected that problem once we discovered what the problem was. Second, there was no internet and social

media back then for pet food companies and individuals to spread misinformation about what is going on or to harass us for doing research on this problem. Unfortunately, that is not the case today. Rather than

applauding the research efforts of veterinarians working in this area, the researchers are facing harassment from some, which is unacceptable. Third, we were seeing the problem with a single diet, so it was easier to discover what was causing the problem. Currently, we are seeing dogs consuming certain types of diets from numerous pet food companies developing DCM, so it is more difficult to determine what is going on.”

Sanderson pointed to several key elements about the new crop of cases, including that the FDA reports cases where there is “more than one affected animal in the same household,” which she says may mean “genetics is unlikely to be involved.”



Diet Descriptors as Noted in FDA Reports

Foods labeled “grain free” do not contain corn, soy, wheat, rice, barley, or other grains.

A high proportion of all or some of these plant-based ingredients listed in the first 10 ingredients and before vitamins and minerals on the product labels’ ingredient list:

- Peas
- Lentils
- Other legume seeds (pulses)
- Potatoes, including sweet potatoes, in various forms (whole, flour, protein)

Avenues of Investigation of Not Only What but Why

Heading into 2021, Stern remains hopeful research can move toward mechanistic evaluation so that “we can investigate in order to really get to the bottom of what’s happening because I think thus far, the industry and the research teams have been reactionary to this issue, and we really need to switch our footing from reactionary to be investigatory from a mechanistic standpoint.”

Relevant original research has been published in 2019 and 2020, including the following:

- “Echocardiographic Phenotype of Canine Dilated Cardiomyopathy Differs Based on Diet Type,” *Journal of Veterinary Cardiology* 21 (February 2019): 1–9.

- Conclusions: “Dietary-associated DCM occurs with some grain-free diets and can improve with nutritional management, including diet change. The role of taurine supplementation, even without deficiency, is uncertain.”
- “A Commercial Grain-Free Diet Does Not Decrease Plasma Amino Acids and Taurine Status but Increases Bile Acid Excretion When Fed to Labrador Retrievers,” *Translational Animal Science* 4 (2020): 1–12.
 - Conclusions: “These data suggest that feeding APS [Arcana Pork and Squash formula], a grain-free diet, over a 26-wk period improved taurine status in Labrador retrievers and is not the basis for the incidence of DCM for dogs fed APS. Other factors that may contribute to the etiology of DCM should be explored.”
- “Development of Plasma and Whole Blood Taurine Reference Ranges and Identification of Dietary Features Associated with Taurine Deficiency and Dilated Cardiomyopathy in Golden Retrievers: A Prospective, Observational Study,” *PLOS ONE* 15, no. 5 (May 15, 2020): e0233206.

- Conclusions: “Nontraditional diets, which were typically grain free and contained legumes in this study were significantly associated and have increased relative risk for the identification of taurine deficiency and echocardiographic abnormalities consistent with nutritionally mediated DCM. These findings were identifiable in the absence of clinical signs and support the findings of previous studies and the ongoing FDA investigation.”

In addition, the 2020 American College of Veterinary Internal Medicine Forum On Demand featured these research reports and research abstracts relevant to nutritionally mediated DCM:

- “Use of Omics Technologies in the Investigation of Diet-Associated Dilated Cardiomyopathy in Dogs”
 - Conclusions: “Omics technologies (e.g., metabolomics, lipidomics) can provide functional information on individual diet constituents and blood biochemicals, and links can be compared

Primary Versus Secondary DCM in Dogs

Sherry Sanderson, DVM, PhD, DACVIM, DACVN, said, “The big difference is primary DCM is a progressive disorder and almost always fatal, whereas secondary DCM has a chance to improve dramatically or reverse completely if the underlying cause is treated.”

Here’s a portion of a chart she uses to explain the differences.

	Primary DCM	Secondary DCM
Etiology	Idiopathic, genetic, breed predisposition	Nutritional cardiomyopathy, toxic cardiomyopathy, end-stage myocarditis
Breeds	Doberman pinscher, Irish wolfhound, Great Dane, Newfoundland, Scottish deerhound, Afghan hound, Old English sheepdog, standard schnauzer, Portuguese water dog, American cocker spaniel, English cocker spaniel, toy Manchester terrier	Any breed, including breeds that develop primary dilated cardiomyopathy

between the two. This information may help to make mechanistic connections between diet and complex, multifactorial diseases, such as diet-associated DCM.”

- “Retrospective Investigation of Diet and Dilated Cardiomyopathy in Dogs”
 - Key points of discussion, retrospective study (2014–2018): “DCM cases increased over time. 79% of dogs with DCM [were] eating nontraditional diets. Dogs eating nontraditional diets that changed diet had some echo improvements and longer survival times than dogs [who] did not change diet.”
 - Key points of discussion, case-control study (2018): “Dogs with DCM (95%) are more likely to be eating nontraditional diets than dogs with MMVD [myxomatous mitral valve degeneration] (47%).”
- “Short-Term Outcome of a Prospective Study of Diet-Associated Dilated Cardiomyopathy in Dogs”
 - Objective excerpt: “To date, 41 of 42 dogs still alive were re-evaluated at 3 months (23 at 6 months, 16 at 9 months). . . . 3/9 traditional diet dogs were alive at 3 months. Overall, 27 dogs died or were euthanized [12/27 (44%) due to sudden death].”

In addition, *Trends* is aware of the following studies underway or planned:

- Investigation into diet-associated dilated cardiomyopathy in dogs—“prospectively screen a large population of apparently healthy dogs for DCM and compare important cardiac disease measures, including ultrasound of the heart, blood biomarker and taurine concentrations, and the frequency of DCM in dogs eating BEG [boutique, exotic, or grain-free] versus non-BEG diets”
 - University of Florida
 - Funded by the American Kennel Club Canine Health Foundation
 - Work anticipated through March 2021
- Investigation into the interaction between genetics (known and possible unknown markers) and nutrition in canine DCM cases—recruiting 1,000 DCM cases to “explore options for early detection of DCM, genetic risk factors for DCM (nutritional and nonnutritional), and potential solutions to support healthy recovery of affected dogs”
 - Funded by Hill’s Pet Nutrition and Embark Veterinary



“I think what’s changed to me is that research has continued in this area. Case numbers have continued to climb, and associations have been found now in multiple different environments/research studies.”

—JOSHUA STERN, DVM, DACVIM (CARDIOLOGY), UNIVERSITY OF CALIFORNIA, DAVIS

- Enrollment ongoing through early 2021
- Survey of DCM incidence and breed predisposition
 - BSM Clinical Nutrition Services
 - Funders not disclosed to *Trends*
 - Submitted for peer review, September 2020
 - Prepublication data release planned at biorxiv.org
- Effect of different diets on amino acid metabolism
 - BSM Clinical Nutrition Services
 - Funders not disclosed to *Trends*
 - Data analysis expected in spring 2021
- Neonatal metabolism
 - BSM Clinical Nutrition Services
 - Funders not disclosed to *Trends*
 - Project started in fall 2020
- Breed-specific nutritional requirements
 - BSM Clinical Nutrition Services
 - Funders not disclosed to *Trends*
 - Project started in fall 2020

Living with Unknowns

Veterinary practitioners and their teams continue to watch and wait, assess published data, consider relevant

Heartgard[®] Plus

(ivermectin/pyrantel)

CHEWABLES

CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.

INDICATIONS: For use in dogs to prevent canine heartworm disease by eliminating the tissue stage of heartworm larvae (*Dirofilaria immitis*) for a month (30 days) after infection and for the treatment and control of ascarids (*Toxocara canis*, *Toxascaris leonina*) and hookworms (*Ancylostoma caninum*, *Uncinaria stenocephala*, *Ancylostoma braziliense*).

DOSAGE: HEARTGARD[®] Plus (ivermectin/pyrantel) should be administered orally at monthly intervals at the recommended minimum dose level of 6 mcg of ivermectin per kilogram (2.72 mcg/lb) and 5 mg of pyrantel (as pamoate salt) per kg (2.27 mg/lb) of body weight. The recommended dosing schedule for prevention of canine heartworm disease and for the treatment and control of ascarids and hookworms is as follows:

Dog Weight	Cheewables Per Month	Ivermectin Content	Pyrantel Content	Color Coding On Foil Backing and Carton
Up to 25 lb	1	68 mcg	57 mg	Blue
26 to 50 lb	1	136 mcg	114 mg	Green
51 to 100 lb	1	272 mcg	227 mg	Brown

HEARTGARD Plus is recommended for dogs 6 weeks of age and older.

For dogs over 100 lb use the appropriate combination of these chewables.

ADMINISTRATION: Remove only one chewable at a time from the foil-backed blister card. Return the card with the remaining chewables to its box to protect the product from light. Because most dogs find HEARTGARD Plus palatable, the product can be offered to the dog by hand. Alternatively, it may be added intact to a small amount of dog food. The chewable should be administered in a manner that encourages the dog to chew, rather than to swallow without chewing. Chewables may be broken into pieces and fed to dogs that normally swallow treats whole.

Care should be taken that the dog consumes the complete dose, and treated animals should be observed for a few minutes after administration to ensure that part of the dose is not lost or rejected. If it is suspected that any of the dose has been lost, redosing is recommended.

HEARTGARD Plus should be given at monthly intervals during the period of the year when mosquitoes (vectors), potentially carrying infective heartworm larvae, are active. The initial dose must be given within a month (30 days) after the dog's first exposure to mosquitoes. The final dose must be given within a month (30 days) after the dog's last exposure to mosquitoes.

When replacing another heartworm preventive product in a heartworm disease preventive program, the first dose of HEARTGARD Plus must be given within a month (30 days) of the last dose of the former medication.

If the interval between doses exceeds a month (30 days), the efficacy of ivermectin can be reduced. Therefore, for optimal performance, the chewable must be given once a month on or about the same day of the month. If treatment is delayed, whether by a few days or many, immediate treatment with HEARTGARD Plus and resumption of the recommended dosing regimen will minimize the opportunity for the development of adult heartworms.

Monthly treatment with HEARTGARD Plus also provides effective treatment and control of ascarids (*T. canis*, *T. leonina*) and hookworms (*A. caninum*, *U. stenocephala*, *A. braziliense*). Clients should be advised of measures to be taken to prevent reinfection with intestinal parasites.

EFFICACY: HEARTGARD Plus Chewables, given orally using the recommended dose and regimen, are effective against the tissue larval stage of *D. immitis* for a month (30 days) after infection and, as a result, prevent the development of the adult stage. HEARTGARD Plus Chewables are also effective against canine ascarids (*T. canis*, *T. leonina*) and hookworms (*A. caninum*, *U. stenocephala*, *A. braziliense*).

ACCEPTABILITY: In acceptability and field trials, HEARTGARD Plus was shown to be an acceptable oral dosage form that was consumed at first offering by the majority of dogs.

PRECAUTIONS: All dogs should be tested for existing heartworm infection before starting treatment with HEARTGARD Plus which is not effective against adult *D. immitis*. Infected dogs must be treated to remove adult heartworms and microfilariae before initiating a program with HEARTGARD Plus.

While some microfilariae may be killed by the ivermectin in HEARTGARD Plus at the recommended dose level, HEARTGARD Plus is not effective for microfilariae clearance. A mild hypersensitivity-type reaction, presumably due to dead or dying microfilariae and particularly involving a transient diarrhea, has been observed in clinical trials with ivermectin alone after treatment of some dogs that have circulating microfilariae.

Keep this and all drugs out of the reach of children.

In case of ingestion by humans, clients should be advised to contact a physician immediately. Physicians may contact a Poison Control Center for advice concerning cases of ingestion by humans.

Store between 68°F - 77°F (20°C - 25°C). Excursions between 59°F - 86°F (15°C - 30°C) are permitted. Protect product from light.

ADVERSE REACTIONS: In clinical field trials with HEARTGARD Plus, vomiting or diarrhea within 24 hours of dosing was rarely observed (1.1% of administered doses). The following adverse reactions have been reported following the use of HEARTGARD: Depression/lethargy, vomiting, anorexia, diarrhea, mydriasis, ataxia, staggering, convulsions and hypersalivation.

SAFETY: HEARTGARD Plus has been shown to be bioequivalent to HEARTGARD, with respect to the bioavailability of ivermectin. The dose regimens of HEARTGARD Plus and HEARTGARD are the same with regard to ivermectin (6 mcg/kg). Studies with ivermectin indicate that certain dogs of the Collie breed are more sensitive to the effects of ivermectin administered at elevated dose levels (more than 16 times the target use level) than dogs of other breeds. At elevated doses, sensitive dogs showed adverse reactions which included mydriasis, depression, ataxia, tremors, drooling, paresis, recumbency, excitability, stupor, coma and death. HEARTGARD demonstrated no signs of toxicity at 10 times the recommended dose (60 mcg/kg) in sensitive Collies. Results of these trials and bioequivalency studies, support the safety of HEARTGARD products in dogs, including Collies, when used as recommended.

HEARTGARD Plus has shown a wide margin of safety at the recommended dose level in dogs, including pregnant or breeding bitches, stud dogs and puppies aged 6 or more weeks. In clinical trials, many commonly used flea collars, dips, shampoos, anthelmintics, antibiotics, vaccines and steroid preparations have been administered with HEARTGARD Plus in a heartworm disease prevention program.

In one trial, where some pups had parvovirus, there was a marginal reduction in efficacy against intestinal nematodes, possibly due to a change in intestinal transit time.

HOW SUPPLIED: HEARTGARD Plus is available in three dosage strengths (See DOSAGE section) for dogs of different weights. Each strength comes in convenient cartons of 6 and 12 chewables.

For customer service, please contact Merial at 1-888-637-4251.

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Living with Unknowns

Veterinary practitioners and their teams continue to watch and wait, assess published data, consider relevant conflicts of interest, apply their own critical analysis, and decide how to engage with clients on this issue.

“Probably the most important thing to know is that right now there are more questions than answers,” said Renee Streeter, DVM, DACVN, principal nutritionist with BSM Clinical Nutrition Services.

So prepare yourself for some level of unknowing, but that's not new in veterinary medicine. Sanderson said, “It is possible that the current problem with dogs consuming certain types of diets developing secondary DCM is so complex and multifactorial that the underlying cause may never be found. That should *not* be a reason to do nothing about the problem.”

Sanderson compares it to how not all dogs develop acute renal failure after ingesting grapes or raisins. We don't know why some do and some don't. Yet nobody recommends that dogs eat grapes or raisins.

She also compares it to how not all cats develop vaccine-associated sarcomas. Yet, because enough cats were, the profession took action, including changing the location of feline vaccine administration.

In addition to the anticipated shift to mechanistic investigations, following nutritionally mediated DCM cases over a longer term may also reveal important details—about why these DCM cases develop, what happens over time, and what interventions help. ✱



Roxanne Hawn is a freelance writer living in Colorado.



Henry - February 2013



Henry - October 2020

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†Freedom of Information: NADA 140-971 (January 15, 1993)

*For puppies 6 weeks of age or older.



Crème de la Crème

Meet the Finalists for 2020 AAHA-Accredited Practice of the Year

by Jen Reeder

It's a huge accomplishment to become AAHA accredited. As *Trends* readers undoubtedly know, only 12–15% of practices in North America have achieved accreditation.

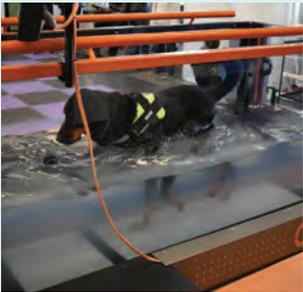
So finalists for AAHA-Accredited Practice of the Year truly are among the best in the business.

Guyline Charette, DMV, immediate past president of the AAHA Board of Directors and veterinarian at Pembroke Animal Hospital, which won AAHA-Accredited Practice of the Year in 2016, said she congratulates the finalists.

"I think there's a lot of glory in being a finalist," she said. "Being a finalist means that you live and breathe what AAHA should represent to everybody, and you're able to share that with your community and your staff. So, kudos!"

She also noted that since the awards are based on a scoring system, sometimes there might not be much difference score-wise between the practice that ultimately wins and the finalists. As the saying goes, it truly is an honor to be nominated.

Here's a closer look at the practices that made a splash in this year's competition.



Practice of the Year

Are You Up for the Challenge?

For more information on AAHA's Practice of the Year Award, please visit aaha.org/about-aaha/awards.



Tender Care Veterinary Center

Falcon, Colorado

When army veteran Amy Clark, DVM, and her husband, John Amen, opened Tender Care Veterinary Center in 2015, their goal was to help meet the needs of pet owners in the rural community, which is about six miles outside Colorado Springs.

“There was just such a need in this area for state-of-the-art, modern veterinary care,” said Jessica Torres, CVT, practice manager. “The practice has grown exponentially over the past five years.”

The practice offers emergency care, holistic modalities like acupuncture and chiropractic manipulation, grooming, behavior training, and onsite cremation services. But Torres thinks what really makes the practice special is the team.

“Everybody really is on the same page. It’s a drama-free work environment and everybody supports everybody to do the best by our clients and our patients,” she said.

Tender Care gives back to the community in myriad ways. The practice invested \$20,000 in building a local dog park,

hosts food and coat drives, donates to scholarship funds, and organizes teams to walk for causes like clean water in Africa and the American Heart Association. The Tender Pet Fund provides emergency care for pets whose families can’t afford it; it recently helped save a dog with a lacerated artery resulting from a dog fight.

As a veteran-owned practice near a city with multiple military bases and institutions, Tender Care regularly performs flag-retirement ceremonies in the crematorium. Then the ashes of the flags are returned to the veterans so they can scatter them as they see fit.

Torres said AAHA accreditation drives the practice.

“It really keeps everybody focused on the same goals and on providing exceptional care and exceptional service to our community and to our clients,” she said. “I think that it really does drive who we are and every single thing that we do.”



Idaho Veterinary Hospital

Nampa, Idaho

There's a large, diverse team at Idaho Veterinary Hospital, including eight veterinarians, which is guided by the practice motto: "Compassionate veterinary care by passionate people."

"We strive to create a culture of inclusiveness, appreciation, respect, and opportunities to grow," said John Calhoun, DVM, co-owner. "We firmly believe our companion animals bring happiness to the people of our community, and that any species of animal can help enhance a person's quality of life. We are fueled by our passion for serving our clients and our patients from beginning to end."

That passion is exemplified with the extraordinary measures the practice took to help an elderly woman with a diabetic cat named Mindy. When the woman called Idaho Veterinary Hospital concerned that her cat was acting strange, it turned out she'd been giving Mindy insulin every time she ate, instead of the prescribed dosage twice a day.

The cat needed immediate treatment, but the woman couldn't find someone to drive them. So the office manager rushed to her house and transported Mindy to the practice, where she recovered after two days of hospitalization. Then, this spring, when the woman herself was hospitalized, she called the practice in a panic; she feared Mindy wasn't getting insulin treatments while she was away. Once again, the office manager drove to the house, managed to get ahold of the cat after a bit of a chase, and brought Mindy to Idaho Veterinary Hospital, where the entire team cared for her until her owner was out of the hospital and back on her feet.

"We are fortunate that we get to wake up each day and empower our team to fulfill their dreams in providing health and healing of the companion animals of our community," Calhoun said.

Calhoun purchased Idaho Veterinary Hospital in 1994, and in 2019, Samantha Cavender, DVM, bought into the practice after working there as an associate veterinarian since 2013. Founded in 1966, the practice has since expanded to specialize in orthopedic surgeries, advanced imaging, and reproductive services.

Idaho Veterinary Hospital provides veterinary care for the local prison K-9 unit, the World Center for Birds of Prey, and support animals for domestic violence survivors at a shelter. The team also works closely with Future Farmers of America groups and donates to local sports teams, animal rescue organizations, and high schools.

Calhoun said the team relies on AAHA to stay focused on and accountable to the high standard of care. He appreciates the extensive network of like-minded practices and individuals to learn from and collaborate with.

"With AAHA by our side, we are confident we are providing a place of comfort, compassion, and the best possible care to our patients," he said. "Idaho Veterinary Hospital is not only proud but honored to be an AAHA Practice of the Year finalist."



Loyal Companions Animal Hospital

St. Charles, Illinois

Vicki Petsche, DVM, owner of Loyal Companions Animal Hospital, had worked in other practices for 20 years before she designed her own practice, which opened in May 2016.

“It was an existing building and I did a big remodel with all of my dream plans in place,” she said. “My vision was to provide everything in one place for owners.”

To that end, the back of the practice features a large pet resort for daycare and boarding, as well as professional grooming and training services. There are windows or skylights in every room of the facility to let in natural light and help boost everyone’s mood. There’s a dedicated surgical suite, radiology room, dental suite with space to perform two dentals at a time, and top-of-the-line medical equipment.

Loyal Companions Animal Hospital is also a certified Fear Free and Cat Friendly Practice, so there’s a separate entrance for cats—the Red Carpet Cat Entrance—so felines don’t have to see or smell dogs. Cat rooms have window seats that overlook hummingbird feeders, and there’s a cat box where Petsche and her team can perform exams on cats who feel safer hiding.

Patients (and, pre-COVID, clients) are ushered directly into exam rooms because there is no waiting room. That way, pets don’t have to interact with other animals.

The practice also features an isolation room with its own ventilation system.

“When you open the door, the ventilation is such that the air gets sucked in. So it’s a negative-pressure zone—no contagions would get pulled into the space there,” Petsche explained.

There’s also a run next to a big window for dogs who need some time alone if they’re overstimulated or anxious. It looks out on the serenity garden, which Petsche intended as a place for staff to relax, though during the coronavirus pandemic, it’s doubling as an exam area for pets who are too stressed when separated from their owners.

When establishing her policies and protocols, Petsche used AAHA’s recommendations and standards to make sure nothing fell through the cracks. She’d previously worked at practices that were AAHA accredited as well as those that weren’t, so she knew the value. Loyal Companions achieved accreditation in January 2017.

The practice donates money and medications to the local animal shelter and participates in the veterinary assistant program of a local high school. College and high school students also shadow Petsche as part of career programs. She enjoys teaching the next generation and showing them what an innovative practice looks like.

“I feel proud that I actually had a vision in my mind after 20 years of practice and I was able to implement it,” she said. “And I definitely feel proud that I have staff that is happy on a daily basis and I don’t have turnover. I’m always hiring because I’m growing, which is nice, instead of people leaving.”



Madison Veterinary Specialists

Madison, Wisconsin

In October 2012, John Silbernagel, DVM, DACVS, and Amy Pauli, DVM, DACVO, leased space at a little emergency clinic that had no specialists. After a strong first year, they purchased the hospital on January 1, 2014, and soon achieved AAHA accreditation.

That accreditation has not only helped hold the team to high standards but also fostered trust with referring veterinarians as well as clients.

“Clients are getting more and more savvy about that, too,” Pauli said. “I think that helps gain us some clientele, and certainly a level of respect that we wouldn’t otherwise necessarily have.”

Madison Veterinary Specialists grew so rapidly that the founders expanded into a new facility and have hired nearly 100 employees. Silbernagel said the key is upholding the motto “We are an extension of your practice” by getting to know primary-care veterinarians on a first-name basis and building relationships.

“That’s been a big part of what differentiates us: really trying to be a good partner to them,” he said. “We always have viewed ourselves as just a complement to what the primary-care veterinarian is already doing. For those cases that need to go to the next level, we’re there for them.”

Madison Veterinary Specialists offers 24-hour care along with dermatology, internal medicine, neurology, oncology, ophthalmology, surgery, radiology, and a blood bank.

The practice founders believe so strongly in giving back that they offer each member of the staff a paid day off to volunteer for their favorite charity. The practice is also involved with OccuPaws Guide Dog Foundation and donates to the American College of Veterinary Ophthalmologists Vision for Animals Foundation and the local Humane Society. The hospital supports pets of survivors of domestic violence, offers pro bono and discounted services for Madison’s police dogs, has joined the Clean Lakes Alliance, and participates in community events.

Like all of this year’s finalists, both owners voiced appreciation for and pride in their team.

“It’s an amazing group of people—professionally and personally—that we’re lucky enough to be able to have working here,” Pauli said. “And that’s what makes the practice.” ✖



Freelance journalist Jen Reeder is former president of the Dog Writers Association of America.

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Profiles in Retirement

4 Professionals Who Retired on Their Own Terms

by Sarah Ratliff

About one-quarter of board-certified, practicing veterinarians in the United States are 60 years of age or older, according to a recent AVMA survey. A significant portion of these have already passed the “normal” retirement age of 65 but have decided to stay on the job for at least a little while longer—or in some cases, for as long as their health permits.

But others were well prepared for life outside the bounds of a clinical practice or other veterinary-related business or occupation. They chose to leave the profession with their health intact and their capacity to enjoy life undiluted. These individuals saw retirement as an opportunity rather than a necessity, and they were prepared to take advantage of that opportunity when the time arose.

Four of these fortunate men and women chose to share their thoughts with *Trends* on the ins, outs, ups, and downs of retirement. Each has made a successful transition to that exalted state, and others could learn from their examples.

Before Retirement: Business Succession Plans

The AVMA survey revealed that baby boomers represent about one-third of veterinary practice owners.

With a growing number of these veterinary entrepreneurs looking to make a graceful exit, corporations and private-equity firms have



“A retired person who lives their whole life in their job and says, ‘I can’t wait ‘till I retire because then I’m going to start doing things I want to do,’ I don’t think you are going to be very happy.”

—DUANE LANDALS, DVM



Robert Binder, DVM

been purchasing practices across the United States and Canada in ever-accelerating numbers. Even the COVID-19 pandemic is unlikely to dim their ardor, since the demand for veterinary services in the United States is relatively inelastic.

For veterinarians preparing to retire, the arrival of the corporations and the private-equity investors has made potential buyers more plentiful. But many practice owners are reticent about selling to corporations, fearing that bottom-line concerns will compromise the quality of animal care.

Robert Binder, DVM, founded AAHA-accredited Saugus Animal Hospital in suburban Boston in 1987 and maintained sole ownership of the practice until 2017, when he sold it to Community Veterinary Partners. But he only agreed to sell after he was convinced they'd preserve the culture he and his associates spent years building.

"They don't do any branding of the practice," he said. "They don't change the culture. One discussion I had was that, 'Hey, we are interested in your practice because you did certain things right, why would we change that?'"

When Duane Landals, DVM, chose to sell his practice in Morinville, Alberta,

to a corporate entity, he too did so only after receiving assurances that nothing would dramatically change.

"They agreed that they were going to keep all the same staff, and they are going to keep things the same way," he remembered. "We said, this is my community, this is my third generation in this community, and it's important to me this practice keeps the same values, goals, and client service, etc. Those are the things that we were more interested in negotiating than the price—the continuity of practice."

Many independent veterinary practice operators would prefer to sell their businesses to trusted associates. This can be an option, but younger veterinarians are emerging from school with much higher debt loads than in the past, which is inhibiting many from pursuing ownership and the added debt it would entail.

Practice owners who wait until they're nearing retirement age to find a successor may come away disappointed. If they're determined to pass their business along to a hand-chosen associate, they should identify that person several years beforehand to verify that the interest and the commitment are really there.

This is what Mark Russak, DVM, CVJ (an AAHA past president), did at his practice in Berlin, Connecticut.

"I had trained my associate," Russak said. "She was with me 14 years and she took the practice over, and it didn't miss a step.

"I actually took more time off in the last couple of years from my practice than I ever had before," he said. "It

was intentional, so that people would have to work with my other doctors and not just me."

Regardless of the identity of the purchaser, it is natural for veterinarians who own their practices to worry about what will happen to their businesses after they retire. Not because of pride or ego, but because of their commitment to their communities, and their concern over the health and welfare of the animals they built their businesses to serve.

Succession Matters to Employees, Too

MaryBeth Soto, CVPM, worked as the practice manager at AAHA-accredited Main Street Veterinary Hospital and Dental Clinic in Flower Mound, Texas, for 23 years. When she decided to step away from her position in the spring of 2020, she did so with total peace of mind, knowing they were prepared to carry on without her—mainly because of her efforts to make sure they'd be able to do so.

"I feel that I have been preparing over the past several years to make it easy for them, especially with the AAHA guidelines of having everything written down and all the protocols, then everybody knows what to do," she said.

Before leaving in May, Soto let the members of her team know they could call anytime to ask questions or talk over problems. She has been pleased to see a progressive reduction in those calls as the months have passed.

"I think the big thing is being prepared to retire almost at any time," Soto explained. "What if something happens to me? We went out of the country

for two weeks in October and that really set a lot of the foundation for me retiring, feeling good about it because they were able to handle things.

“I’m so happy they are succeeding, because that was my baby,” Soto said.

A Succession Plan for Life

The question, “What are you going to do with your time after you retire?” is a relatively easy one to answer for some veterinarians. But for others, uncertainty remains.

As revealed by the AVMA survey, approximately 25% of currently practicing veterinarians are past the age of 60, and this includes a significant number who have surpassed the retirement age of 65. This group undoubtedly includes many who have no clear idea about



“I feel that I have been preparing over the last several years to make it easy for them, especially with the AAHA guidelines of having everything written down and all the protocols, then everybody knows what to do.”

—MARYBETH SOTO, CVPM

what they might do after retirement and who have decided to continue working at a job they love in lieu of heading into the unknown.

“One of my veterinarian friends, we’ve gotten together for lunch once or twice a year over the years,” Binder recalled. “We talked about management issues, talked about patient issues and client issues, and I think his hobby really was veterinary medicine. I’m going to be 66. He’s going to be, I think 72, and he’s still working.”

While Binder also loved his job, he never had any doubt about his priorities.

“Family is more important than the practice,” he stated. “I viewed the practice as any kind of job I would do. I felt like this is a means to an end.” He quickly added that he was glad to work in a profession that contributed to society and always felt “an obligation and a responsibility to do that right.”

Nevertheless, he didn’t lose sight of the importance of maintaining a healthy work-life balance. Consequently, when it was time to retire, he did so willingly and fully prepared to move on to other things.

“I was becoming increasingly aware of my age, and my outside interests were starting to attract more of my attention,” he explained. “I was thinking I really accomplished everything I wanted to do as a veterinarian. I was a veterinarian for 40 years at that point.”

Landals and Russak both have words of caution for veterinarians who think they can just flip the retirement switch after a lifetime of being too wrapped up in their work.

“A retired person who lives their whole life in their job and says, ‘I can’t wait ’till I retire because then I’m going to start doing things I want to do,’ I don’t think you are going to be very happy,” Landals said.

Landals describes his retirement as a “natural evolution.” It was his love for horses that drew him to the veterinary profession, and he and his wife now have more time to spend with their horses than ever before. “Our hobby was continuous,” he said. “It wasn’t, ‘When I retire I’m going to start going fishing,’ or something like that.”

Notwithstanding a string of noteworthy accomplishments in the veterinary field, Russak wholeheartedly agrees.

“Veterinary medicine was my job; it wasn’t my life,” he stated. “The ones who are not happy and the ones who are dreading retirement, it is because veterinary medicine has become their life. Your family should be your life. Your outside interests should be your life. Veterinary medicine is a job. It’s an incredible job, and you get to love it and you get to go and do it every day, but you need to let go of it.”

A pleasant retirement is far more likely for veterinarians who cultivate other interests well before the time to retire arrives. Without proper attention to a healthy work-life balance, retirement may be a disappointing, frustrating, or boring experience.

Answering the Call

Landals, Russak, and Binder all spoke at length about the importance of family and how they treasure the time they get to spend doing things they love in the company of people they love. Soto was motivated to retire in



“I love what I did, and I don’t feel I ever worked a day. I was truly never bored by anything in veterinary medicine.”

—MARK RUSSAK, DVM, CVJ

part because her husband had already done so; as she put it, “I decided if he gets to stay home, then by goodness, I want to stay home, too.”

But the veterinary profession is more than just a career choice. For most veterinarians, it is a true passion. It penetrates their minds and hearts and leaves them unable to imagine a future in which they are no longer helping animals, interacting with peers, or furthering the progress of veterinary medicine through some other means.

Russak sold his practice in 2003. But he followed up his initial “retirement” by taking a teaching position at Mississippi State University for seven years, and then moving on to the lecture circuit (and the AAHA presidency) after that.

“I’ve lectured in every vet school in the United States—most of them multiple times—half of Canada, all of the Caribbean, and I’ve lectured in Europe also,” he said, listing off his postretirement activities. “I do relief work in my own practice. I also volunteer at two shelters. I’m on the board of one of them. I was on the International Council for Veterinary

Assessment board, which does the NAVLE, the veterinary board test. I was on that board for six years, and I am now on the North American Veterinary Community board. I’m just giving that background so you’ll know why I love retirement.”

Landals is another retired veterinarian who didn’t remove himself from the profession after he stopped practicing. After selling his practice in Morinville, Alberta, Canada, Landals accepted an offer to become the registrar of the Alberta Veterinary Medical Association. He held that post for 14 years, before “retiring” for the second time.

But this “retirement” was no more permanent than the first one. Landals currently serves as the president of the Alberta Society for the Prevention of Cruelty to Animals, among many other duties.

“I’m also a volunteer with Veterinarians Without Borders, providing animal care and services in remote indigenous communities in the north,” he said. “I’m on the Canadian Veterinary Medical



“I still don’t feel like I’m retired. But I haven’t been paid for 10 or 15 years probably now, so I guess I retired.”

—DUANE LANDALS, DVM

Association’s working group for dog importation.”

“I still don’t feel like I’m retired,” he joked. “But I haven’t been paid for 10 or 15 years probably now, so I guess I retired.”

As for Binder, he is still searching for his next challenge.

“I have all this experience and knowledge, and I would like to think that most of it is useful,” he said. Binder would like to mentor younger veterinarians but regrets that he hasn’t found “a pathway for that” yet.

No matter how well prepared a veterinarian may be for retirement, for most, the urge to stay involved is irresistible. Perhaps this is best explained by a popular quote shared by Russak during his interview for this article: “If you love what you do, you never work a day in your life.”

“I love what I did, and I don’t feel I ever worked a day. I was truly never bored by anything in veterinary medicine,” he said.

Retirement does represent a life transformation, regardless of what form it takes. But the happiest veterinarians in retirement are likely those who find a way to stay engaged with a profession that most perceive as a calling. They don’t let it take over their life, but they don’t deny how much it means to them, either. ✖

Following 20 years in the corporate world—culminating with biotech giant Amgen in Southern California, where she worked in health outcomes—Sarah Ratliff



and her husband bought an organic farm on the Caribbean island of Puerto Rico. Today Sarah feels fortunate to call herself a corporate America escapee turned eco-organic farmer, writer, and published book author.

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Pain Case of the Month: Lacie

Acupuncture to Treat Lameness in a Cat

by Erin Dresner, DVM, DABVP (Feline)



Diagnostics including pelvic radiographs, bloodwork, and blood pressure measurement were recommended and declined.

Signalment and History

Lacie, a 10-year-old spayed female domestic shorthair cat, presented for acute-onset, progressive lameness of five days' duration. Wellness care, including vaccination and parasite prevention, was current. Past pertinent medical history included barbering over the rump approximately two to three months before presentation, which was treated as suspected atopic dermatitis. While mild improvement was noted following steroid therapy, resolution was not achieved.

No specific inciting event for the patient's lameness was reported. In the days following onset, behavior changes including lethargy, isolation, and hyporexia were noted. The patient ceased to walk downstairs for meals, preferring to have meals brought to her upstairs. The patient was also noted sleeping in a closet rather than in her usual designated bed in the home office.

The Feline Musculoskeletal Pain Index (FMPI) was used as a clinical metrology instrument to assess the patient's pain objectively. The index was further used as a guide to help the patient's caretakers understand that the patient was experiencing pain, as well as the recommendation for treatment. The patient's total score at presentation was 28 (out of a possible total score of 68, with a higher score indicating less impairment).

Physical Examination

Physical exam revealed grade 2/4 lameness of the left pelvic limb. Focally diffuse barbered fur was noted over the rump. Exam of the underlying skin was normal, with no lesions or evidence of ectoparasitism.

The patient's body condition was mildly overweight with a body condition score of 6/9. Mild atrophy of the left biceps femoris was noted, resulting in a muscular condition score of 2/3. The right quadriceps and gluteal musculature appeared mildly hypertrophied. Myofascial palpation revealed mild restriction characterized by taut muscular bands over the right dorsolateral cervical region. Palpation along the spine revealed myofascial trigger points at the left caudal lumbar region. Increased tail flicking and skin rippling were noted upon light palpation over the rump. A pain response characterized by head turning, mydriasis, and narrowed palpebrals was elicited upon gentle palpation over the left coxofemoral joint. No pain response was appreciated upon palpation over the right. Range of motion of the left coxofemoral joint was approximately 50% decreased on extension and mildly decreased on flexion. Palpation of the left hamstring muscles revealed taut muscular bands. No abnormalities were noted on examination of the bilateral stifles, tarsi, or hind paws and digits. The thoracic limbs were unremarkable.

Neurologic examination revealed no deficits. Mild diffuse tartar and gingivitis were noted. A pain score of 2/4 and a Fear, Anxiety, and Stress Spectrum score of 2/5 were recorded. The remainder of the general physical exam was unremarkable.

The patient appeared most painful at the left coxofemoral joint. Evidence included gait evaluation, pain response to palpation, decreased range of motion, and presence of barbered fur. While clinical signs were described as acute onset by her caretakers, an acute-on-chronic onset was suspected given her myofascial restriction, trigger points, and compensatory hypertrophy of the right quadriceps and gluteal musculature.

Feline hyperesthesia associated with chronic musculoskeletal pain was suspected due to a history of regional barbering, absence of skin lesions and visible ectoparasites, tail twitching, and skin rippling.

Diagnostics including pelvic radiographs, bloodwork, and blood pressure measurement were recommended and declined. Dermatological diagnostics including skin scraping, skin cytology, ringworm testing, diet trial, and allergy testing were also declined.

Goals for treatment included relief of acute-on-chronic pain at the left coxofemoral joint, restoration of normal function of the left pelvic limb, and management of compensatory myofascial restriction along the right dorsolateral cervical region, left lumbar vertebrae, and right pelvic limb.

Treatment

An initial treatment schedule of every two to three days the first week followed by once-weekly treatments pending Lacie's progress was proposed. Lacie received a total of eight medical acupuncture

treatments over five weeks.

Analgesics and nutraceuticals were declined by the caretakers due to an inability to administer oral and parenteral therapies. Several attempts were made to demonstrate medication-administration techniques, but the patient remained resistant.

Lacie's treatment plan followed the Medical Acupuncture and Integrative Neuromodulation technique. Needle selection was based on the area treated and the patient's tolerance, with larger, 0.25 mm diameter by 15 mm long needles placed at the larger muscle groups along the lumbar and gluteal regions, and smaller, 0.16 mm or 0.12 mm diameter by 15 mm long needles placed at points along the distal limbs and at sensitive local tender or trigger points. The appetite-stimulating point of the dorsal nasal planum (Shen-Gan) was treated with a 0.10 mm diameter by 15 mm long needle.

This plan was created to decrease the effects of maladaptive pain via neuromodulation of the segmental spinal nerves that innervate the hip musculature; improve motor nerve function via neuromodulation of the sciatic, cranial gluteal, and femoral nerves, which innervate the hip abductors, adductors, flexors, and extensors; and improve parasympathomimetic-directed release of anti-inflammatory and analgesic substances via neuromodulation of points along the autonomic nervous system. Treatment of local tender or trigger points promoted myofascial release, improved blood circulation, and removal of muscular waste products.



Erin Dresner, DVM, DABVP (Feline), performs acupuncture on Lacie



Lacie receives acupuncture treatment

Outcome

Resolution of hyporexia was reported after the first treatment. After two treatments, physical exam revealed grade 1/4 lameness. Resolution of lameness was reported after three treatments. Weekly treatments were continued to address ongoing myofascial restriction and further reduce inflammation associated with suspected coxofemoral degenerative joint disease, resulting in resolution of all local trigger points along the left lumbar region. The patient's range of motion on extension of the left coxofemoral joint improved from an estimated 50% to 80%. Decreased barbering and new fur growth were noted. No further isolating behavior was reported following treatment.

The patient's total FMPI score improved from 28 to 46 at week two of treatment. At week four of treatment, the patient's score improved to 58. The patient finally achieved a total FMPI score of 65 at the end of treatment. The patient's pain score improved from 2/4 to 1/4, and the Fear, Anxiety, and Stress Spectrum score improved from 2/5 to 1/5.

Discussion

The lack of diagnostics in this case may be interpreted as a deficiency despite the positive clinical outcome. Given that up to 80% of senior cats with histologically confirmed degenerative joint disease may have no radiographic evidence of disease, it was determined that deferring diagnostics in favor of initiating treatment for suspected feline degenerative joint disease or osteoarthritis was a reasonable option.

Photomedicine may have benefited the patient's treatment plan, but no laser unit was available. Additional acupuncture points, including SP6, SP9, SP10, and BL60, were deferred because of the patient's sensitivity in these areas. These may be excellent areas to target with photomedicine. It is possible that a dense-disperse electroacupuncture frequency may have improved treatment outcomes, but no such unit was available at the time of treatment. ✖

Erin Dresner, DVM, DABVP (Feline), is a board-certified feline specialist located in Montgomery, Texas. She is a graduate of Western University of Health Sciences College of Veterinary Medicine, and is certified in veterinary medical acupuncture. She currently serves as a specialty telemedicine consultant for VetNOW.



Discussion by Mike Petty, DVM, CCRT, CVPP, DAAPM

Often, it can be difficult to convince any owner that the signs that they are seeing are due to pain. As in this case, I like to eliminate that doubt by having the owner fill out a pain metric. In this case, the FMPI was used, where the owner observations produced a pain score. This allows us as practitioners to move past that doubt and get to the problem at hand.

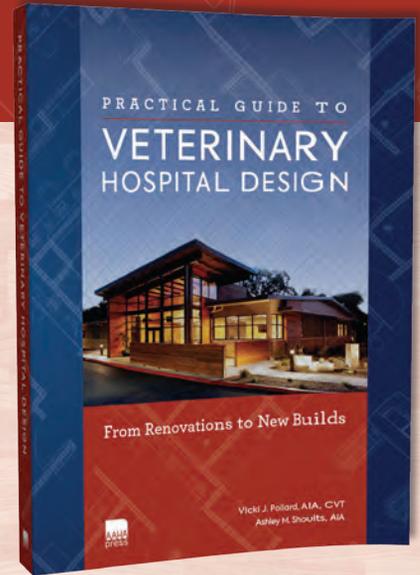
Diagnostics are the keystone of any good case workup; however, there are some owners who are unwilling to allow things like radiographs because of money or personal reasons. Knowing exactly where a lesion is located is especially important in medical-based acupuncture, which uses a Western approach to therapy based on specific lesion locations. But a well-done physical exam, as in this case, often can substitute for more specific diagnostics, but with one caveat: If the patient does not respond to therapy, then further discussion with the client must be conducted, and documentation of that discussion needs to be made and put in the medical record.



Michael C. Petty, DVM, CCRT, CVPP, DAAPM, is in private practice in Canton, Michigan. He is a frequent national and international lecturer on topics related to pain management. Petty offers commentary on each Pain Case of the Month (and occasionally writes one himself). He was also a member of the task force for the 2015 AAHA/AAFP *Pain Management Guidelines for Dogs and Cats*.

“This excellent resource covers nearly every aspect of the process—from brainstorming to completion.”

—DEANNE BONNER, RVT, CVPM



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Marketing Through the Pandemic

Tips for Reaching Clients During COVID-19

by Lavanya Sunkara

At the beginning of 2020, no one anticipated the ensuing events that would drastically change the way animal hospitals operated. As essential businesses, animal hospitals remained open for sick patients and eventually began caring for pets via telehealth services and curbside drop-offs. While some practices saw an uptick in patients due to the rise in adoptions of “pandemic puppies,” those that quickly incorporated innovative marketing strategies saw their businesses thrive.

Practices that communicated clearly, moved quickly to establish new protocols, offered online forms and virtual events, and focused on the health and safety of staff and clients have been the most successful during the long quarantine months. Well-established and AAHA-accredited hospitals like the Massachusetts Society for the Prevention of Cruelty to Animals (MSCPA)-Angell Animal Medical Center in Boston continued to provide top-notch service while emphasizing safety, client relations, and COVID-19 awareness. Practices like AAHA-accredited Small Door Veterinary in New York City have seen a dramatic increase in usage of their online portal and continue to promote their brand with their media presence.

Here are some marketing strategies hospitals have employed to stay



Rebecca Meyer, experience lead at Small Door Veterinary

“With lots of news and myths circulating regarding whether and how coronavirus might affect pets, we regularly updated our members with the latest facts and advice on how best to protect their pets.”

—JOSH GUTTMAN, CEO OF SMALL DOOR VETERINARY, NEW YORK CITY



“It is nerve-wracking to leave your deeply loved pet somewhere overnight when they are not feeling great. The texts provide families with visual assurance that their animal is well cared for and receiving comfort and attention.”

—ROB HALPIN, DIRECTOR OF COMMUNICATIONS AT MSPCA-ANGELL ANIMAL MEDICAL CENTER, BOSTON

connected to their clients during COVID-19.

Posting Educational Blog Posts

In these uncertain times, pet owners express concerns, including “Do dogs and cats get COVID-19?” and “Can I get COVID-19 from my dog or cat?” In addition to a modern and personable website, it’s important to maintain up-to-date information about safety guidelines and address frequently asked questions.

Veterinary marketing expert Bill Schroeder of InTouch Practice Communications, a digital marketing agency, recommends having “a really solid website that allows you to distinguish yourself from the competition, one that [conveys that you] clearly understand the emotional decision a pet owner makes when they are evaluating your practice against other practices.”

Providing an educational blog with relevant content can assuage client fears, provide comfort, and give pet owners a reason to return.

“With lots of news and myths circulating regarding whether and

how coronavirus might affect pets, we regularly updated our members with the latest facts and advice on how best to protect their pets,” said Josh Guttman, CEO of Small Door Veterinary. Their online Learning Center features articles on pet health and wellbeing. Topics include advice on pet separation anxiety when returning to work, ways to keep pets entertained, and travel certificates.

Staying Connected

Whether it’s a newsletter, an email blast, push notifications, or informative on-hold messages,

communication is key to staying in touch with clients. Robin Brogdon, founder and CEO of BluePrints Veterinary Marketing Group, emphasizes dated e-blasts every one to two weeks so “it is clear when the message was last updated because COVID protocols change so often.”

According to Rob Halpin, director of communications at MSPCA-Angell Animal Medical Center, about 60,000 recipients receive a quarterly e-newsletter that “addresses topics of interest to pet owners who want to keep their pets healthy: from tips and tricks for assessing illness at home to tutorials for administering medicine at home.”

Angell is well regarded for its daily “goodnight texts” sent to in-patients’ families. “It is nerve-wracking to leave your deeply loved pet somewhere overnight when they are not feeling great. The texts provide families with visual assurance that their animal is well cared for and receiving comfort and attention,” shared Halpin. Care coordinators who send these messages also serve as vital points of contact for the families, answering questions and providing updates on their pet’s condition.



Jamie Richardson, BVetMed, Small Door Veterinary

Sometimes a personal touch is essential for a lasting impression on customers. Lily Chen, DVM, of Point Vicente Animal Hospital in Rancho Palos Verdes, California, who also runs her own mobile practice offering integrative treatment, said, “I give short personal updates on what’s going on in my life and offer tips and resources that are useful for clients. I would make recommendations on what to watch out for during a particular time (e.g., summer season and foxtails) and warning signs of certain issues.” Chen also allows her clients to text her with simple questions and to coordinate appointments or refills.

Providing Telehealth and Curbside Services

For practices like Small Door Veterinary, which already relied heavily on digital services prepandemic, the transition from in-person visits to virtual ones at the beginning of quarantine was seamless. “All members had access to our mobile app, via which they can communicate directly with our medical team 24/7 if they ever have queries or concerns about their

pet. This service was well used prior to the pandemic, but we have seen a more than 250% increase since the pandemic,” said Guttman. The practice also started offering video consult appointments so that members could see a veterinarian from their home.

Pippy Pelham, content strategy and marketing lead at Small Door Veterinary, said the online service provided their members peace of mind and saved them the hassle and cost of a vet visit, especially for mild conditions that can be monitored and cared for at home.

For times when an office visit is necessary, hospitals moved to curbside drop-offs and implemented video calls via Zoom or FaceTime with the owners in order to safely follow social distancing protocols.

At a few of their client hospitals, Brogdon’s BluePrints Veterinary Marketing Group implemented the KIND Campaign to make curbside drop-offs go as smoothly as possible.

“Upon arrival at the hospital, a team member would greet the pet owner in the parking lot and provide a bottle of water, a KIND bar, a small handout that asks for their patience and kindness, and inform the pet owner of the process to help their pet—including triage, contactless forms, and any other pre-visit questions,” explained Brogdon.

Before leaving, pet owners receive summary paperwork and a flyer that reinforces the practice’s commitment to the health and safety of everyone, expresses appreciation for their business, and encourages them to review the practice on social media.



Seth Bishop, VMD, Small Door Veterinary

Sending Regular Reminders

With the stresses of working from home and homeschooling kids, it’s easy for clients to lose track of their furry friends’ checkups and vaccinations.

“We continued sending regular reminders about any care that pets were due for (such as vaccines, blood tests, etc.) and included education on what types of veterinary care could be safely postponed for a few months, and what was essential to take place immediately,” shared Guttman.

Offering Virtual Events

Almost everyone by this point has attended a Zoom session; fun and educational virtual events are another effective way to reach pet owners.

Small Door Veterinary replaced in-person events with virtual sessions via Zoom and Instagram Live. These include dog training seminars, puppy playgroups, pet health seminars and Q&A sessions, trivia nights, pet food cooking classes, and kids’ events.



Veterinary assistant Jamie Han, Small Door Veterinary



Heidi Fillion, LVT, Small Door Veterinary

Tess Payne, marketing director at AAHA-accredited DoveLewis Emergency Animal Hospital in Oregon, proudly shared about their now-virtual canine therapy program. The 80 highly trained dogs and their handlers used to volunteer all over the state. When in-person visits stopped, they went online and continued to bring much-needed joy to people's lives.

"Our canine therapy program is one of the ways DoveLewis supports the Oregon community, and stay-at-home orders forced us to get creative so these extraordinary dogs could still bring some joy into people's lives. We've reached well over 20,000 with virtual Read to the Dogs kids' programs, a pen-pal program for senior living centers, and digital courtroom stress relief," noted Payne.

Being a Media Expert

Building your website's search engine optimization (SEO) profile by way of regular coverage in both print and online media is vital to improving your brand and reaching new clients.

Pelham emphasized, "It's extremely important to dedicate time each week to answering media inquiries and interviews, helping to educate pet owners, and positioning yourself as a trusted expert." According to Pelham, a steady stream of coverage has increased their brand awareness and helped garner new members.

In order to increase the website's SEO profile, Pelham explained, "you need new links from reputable sources over time to help your website rise in Google's listings to ensure new clients can find you when they're searching."

Media presence also offers an opportunity to establish your practice or hospital as a leading expert. "Our doctors have been busier than ever on the media-relations front. Angell's reputation is such that journalists often turn to us for questions about pet health as it relates to the pandemic. We likely average one to two print, online, or TV interviews

"Our canine therapy program is one of the ways DoveLewis supports the Oregon community, and stay-at-home orders forced us to get creative so these extraordinary dogs could still bring some joy into people's lives."

—TESS PAYNE, MARKETING DIRECTOR,
DOVELEWIS EMERGENCY ANIMAL
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per month on these topics, and this is an essential outlet for our doctors to demonstrate thought leadership as it relates to pet care during the pandemic," said Halpin.

Engaging on Social Media

Rachel Barrack, DVM, of Animal Acupuncture in New York City, relies on social media to engage with her existing and potential clients.

"Social media has been a great tool to stay in touch with patients. Many of them follow me, specifically on



Lily Chen, DVM, Point Vicente Animal Hospital



Komal Thawer, RVT, Small Door Veterinary

Instagram (@animalacupuncture), and I am constantly posting tips, COVID news, and relatable content.” Barrack always answers direct messages and comments.

Even if it’s not a patient, “I am happy to help in any way I can,” she said.

Offering Promotions

Going the extra mile makes a huge

difference in attracting new clients and retaining existing ones. For Small Door Veterinary, it was giving a free year of membership to their online portal to those who have recently adopted a pet, and subsidizing pet transportation to help members get their pets to the practice.

“The member could come in the car with their pet, or send their pet alone with drivers specially trained in pet care,” said Pelham. They have also offered members prescription deliveries to their home (or another convenient location) to save them a trip.

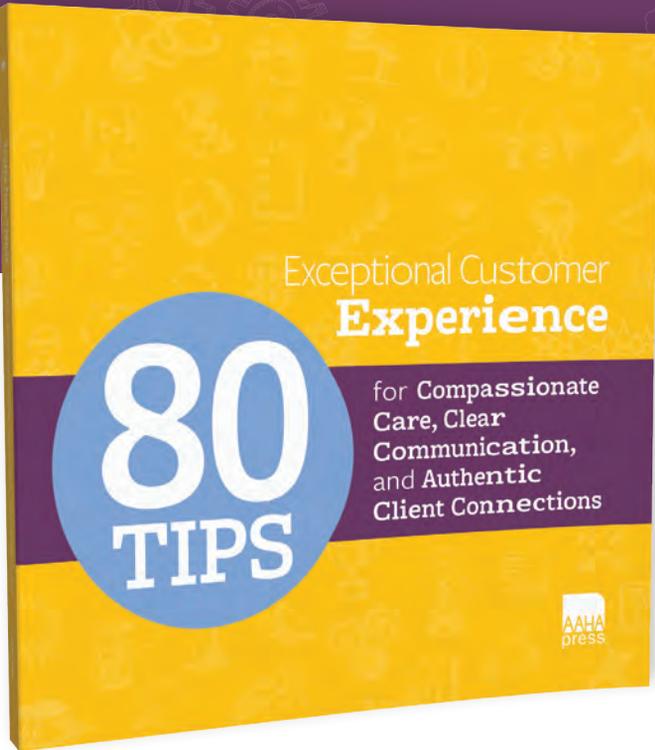
In these strange times, it’s the small acts of kindness that facilitate the human (and pet) connection we all

crave that make a world of difference. Whether it’s a reassuring goodnight text about a pet in the hospital or a direct message from the veterinarian to address a minor issue, little touches mean just as much as a well-curated website, a detailed newsletter, or an organized curbside drop-off service. In-person, virtually, or socially distant, connection means everything. ✨



Lavanya Sunkara is a New York City–based freelance writer and animal lover. She enjoys going on hikes and road trips with her two adopted dogs. Follow her on Instagram @nature_traveler.

Photo courtesy of Small Door Veterinary



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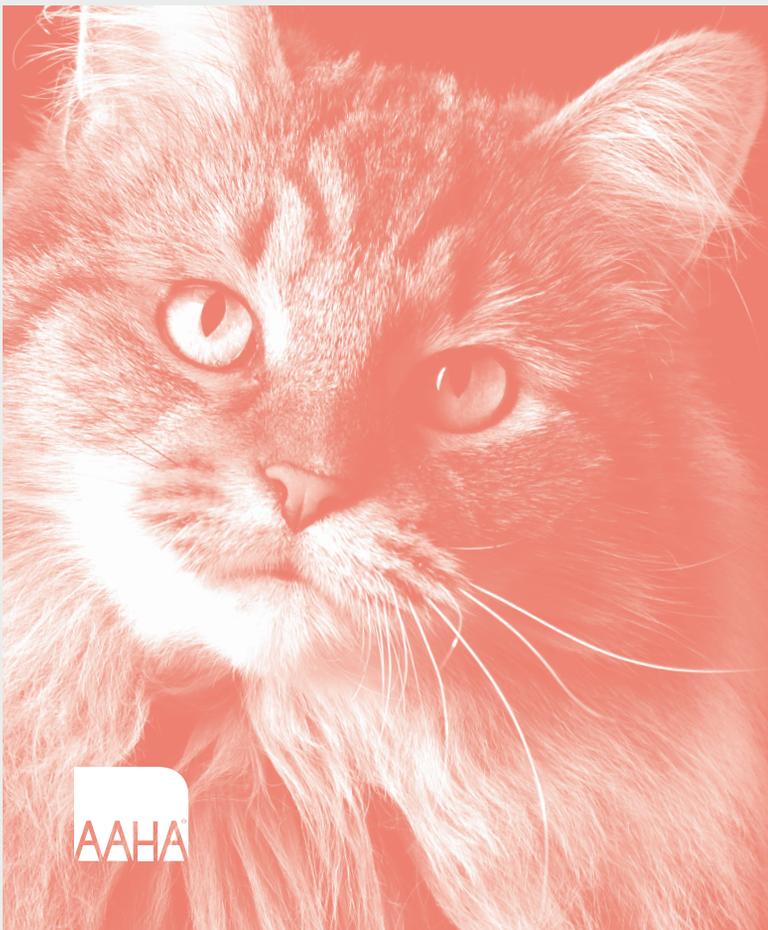
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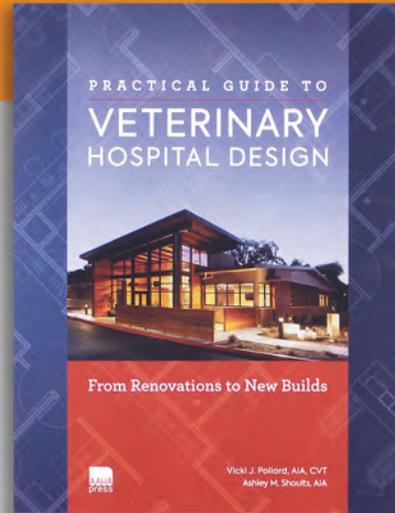
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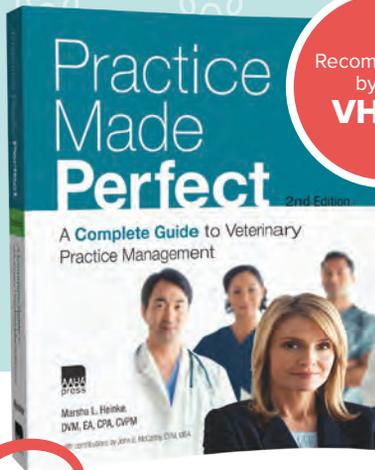
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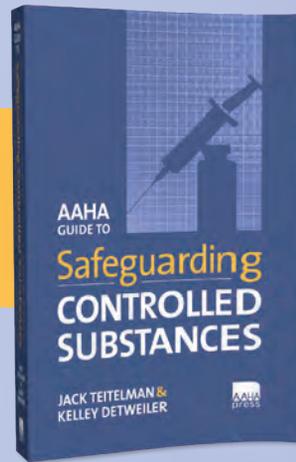


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in the community

Creating a New Normal

Editor's note: Since the advent of the coronavirus, veterinary practices' community service has shifted. We reached out to several practices we've interviewed in the past to see how they're doing.

When it comes to the coronavirus, thinking outside the box is the new normal. So it was for AAHA-accredited practice Gladstone Veterinary Clinic in Milwaukee, Oregon, on the southeast edge of the Portland metro area.

"Initially, when the coronavirus hit, three staff members had childcare issues. We came up with the crazy idea to start a mini childcare center in the practice," Tanya ten Broeke, DVM, practice owner, told AAHA. "Needless to say, that didn't work out. In fact, we realized almost immediately that we needed to limit, not add to, the number of people in the building."

That's exactly what Gladstone did. "We quickly closed the building and allowed access only to team members and patients, and put a curbside service in place," said ten Broeke. "We put new protocols in place two to three times a week, and sometimes, two to three times a day. We also shortened our hours so we could do catch-up after hours, and stopped being open on Saturdays to give staff two-day breaks."

Gladstone also took advantage of remote work options and tools. "One of our veterinary assistants began working from home and uses our practice management software, Slack, texting, and more, and this has alleviated some of the stress for those of us in the building. She has been a huge help behind the scenes with prescriptions and refills, electronic client forms, coordination, and more."

Because Gladstone has a lot of high-risk staff members—ten Broeke herself has type 1 diabetes—Gladstone has decided to continue with curbside service until a vaccine is available. This will enable Gladstone to settle into a new and less stressful "normal," and refine its processes and infrastructure.



Coffee Creek inmates are reunited with their puppies after the coronavirus orders lift. (Photo courtesy of Coffee Creek Correctional Facility)

That new normal has retained some of Gladstone's community service efforts. One, with Canine Companions for Independence (CCI), is a program in partnership with Coffee Creek Correctional Facility, Oregon's women's prison, located just south of Portland.

The CCI program involves puppies living with prison inmates for up to two years. During that time, puppies rotate between inmates for three weeks, and puppy handlers for one week. Puppy handlers also provide guidance to inmates on the care and training of the puppies. Gladstone provides veterinary support.

Needless to say, interactions with inmates stopped immediately when the coronavirus began. However, now that Oregon is reopening, the program is restarting. Gladstone will again be treating the dogs via curbside and via video chats with the puppy handlers. "The inmates are thrilled," said ten Broeke.

Gladstone's other community service effort with the Portland Animal Welfare Team, a nonprofit that provides free veterinary care to the pets of people who are experiencing homelessness, has not yet restarted. "We're still figuring that out," said ten Broeke.

But that's all part of creating—and re-creating—the new normal. ✨



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