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Fat-cat investors are hungry for great veterinary hospitals to buy, and they're baiting the nation's practice owners with juicy sale checks. Here are the top 12 things corporations look for in a practice.

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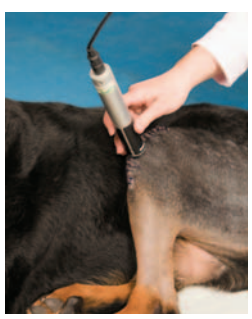

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UBM

The fate of the rural practitioner

If this way of life dies out, one doc says it will be "a crying shame."

Like many of you, I fell in love with the idea of veterinary medicine through the novels of James Herriot. Since then I've wondered if the image of the folksy country doc visiting the barn, leather bag in hand, holds the profession back in some ways, but there's no denying the powerful mystique of that veterinary archetype and its influence on the profession.

The sad thing is that the mixed-practice way of life might be dying, at least according to some. Several months ago I talked to John Davis, DVM, MBA, a practice owner in southern Colorado who also happens to coordinate the moderator program at the CVC veterinary conferences. Davis has been trying to sell his profitable mixed practice for years without success.

While I talked to Davis about his situation, it struck me that he was a kind of real-life James Herriot—whose legacy had no heir. The one veterinarian who was interested in taking over, he told me, was unable to get funding because she had nearly $400,000 in student debt.

In this issue of dvm360, as well as in sister magazines *Vetted* and *Firstline* and on dvm360.com, we look at practice ownership trends in the veterinary profession, especially focusing on corporate consolidation and its effects. But the fate of the rural practitioner seemed to have a place in the discussion as well, so we dug into Davis' predicament in more depth. As often happens, we ended up with more great material than we could fit on the print pages, so Davis' story (and the experts' analysis) can be found at **dvm360.com/rural-outage**. I hope you'll take the time to check it out, along with our other practice ownership coverage.

"For nearly thirty-seven years [my wife] and I have served this community, and I have represented our profession dutifully," Davis wrote in a letter to a colleague that he showed me. "We are seeing third-generation clients. On my watch we have cleaned up brucellosis in the state, been through outbreaks of vesicular disease, West Nile encephalitis, rabies incidences, plague, one notable case of anthrax and others. ... If I am not replaced, who will be veterinary medicine's eyes and ears 'down here in the trenches'? Rural veterinary medicine is in a state of peril as is rural public health in general. It will be a crying shame if this great little rural practice closes it doors, the five jobs are lost to the community and the equipment sold on eBay." **dvm360**

The Bash Halow plan for CE **self-improvement**

CVC

Veterinarians can't turn a blind eye to business anymore. Let's finally put that annual practice management learning to work to make real change in our hospitals. *By Bash Halow, CVPM, LVT*

I recently got taken to task for an article I wrote that petitioned for a wider appreciation of business and practice management (and, yes, corporate practice) in veterinary medicine.

In response, I'd like to double down on that position. Organizations like the American Animal Hospital Association, the Veterinary Hospital Managers Association and **the CVC** shows are working harder than ever to help private practitioners become more competitive—but, c'mon, private practitioners! Let's work our side of the desk equally as hard.

We keep referring to our employees as "team members," but outside of the matching uniforms, is there anything about our business that's like a team? What team puts players into the game on their first game day? What team isn't regularly praised and supported by the coach, who's watching actively on the sidelines? What team doesn't practice?

How many communication lectures have all of us attended only to return to our hospitals and continue on with demoralizing, disrespectful relationships? What were we telling ourselves? "Oh, those rules don't apply here. This Lulu I'm dealing with is outside the bounds of what I learned in class." Guess again!

Right now, let's each one of us take out a blank sheet of paper and make a list of all the things we think we know about practice management: financial oversight, marketing, hiring, coaching, communication, team building ... and ask ourselves whether our efforts in these areas are working.

It's going to stir up some questions, no doubt. But let's not keep these questions to ourselves. Let's take them to every CE classroom we enter in 2017. Let's get those hands in the air. Let's start a discussion. Let's participate in our education, not just listen to it.

I'm doubling down. I think we can get great at what we do, but we have to get serious about managing like a pro.

Bash Halow, CVPM, LVT, is a partner with Halow Tassava Consulting, a frequent speaker at the CVC conferences, a regular contributor to dvm360.com and a Firstline *Editorial Advisory Board member.*

>>> This cat is disappointed she can't schedule her next visit with you on your app. Why are you disappointing this cat?

Apps for veterinary clients: 'Why can't I just do it on my smartphone?'

Pet owners every day are asking that question—or thinking it—when it comes to your veterinary practice. Consider this new survey from a veterinary smartphone app company. *By Brendan Howard, Business Channel Director*

Some people have so many app icons on their iPhone screen, you wonder how they ever remember if an app is on page one or page one-hundred-and-one. But apps continue to be a meaningful way for consumers to connect to businesses. Not surprisingly, perhaps, data from Vet2Pet (a veterinary-app maker) shows that pet owners overwhelmingly prefer apps to the phone.

Here's what you probably guessed already:

> 86% of pet owners are comfortable with most apps
> 74% use at least one app daily.

And here's what these pet owners would want to do on a veterinary-practice app:

> Check clinic hours: 73%
> Make appointments: 69%
> Use their veterinarian's loyalty program (if offered): 69%
> Look at their pet's medical record: 57%
> Look for veterinary articles: 53%
> Order medication: 42%

Dive deeper (see chart below) and you get a sense for how much smartphone app tapping is beating smartphone mouth yapping for client interactions outside a veterinary practice.

The survey was conducted by Colorado State University associate professor Lori Kogan, PhD, in partnership with Vet2Pet. The sample included 610 respondents who lived in the United States, had at least one dog or cat, and had a regular veterinarian they'd seen in the past 12 months. **dvm360**

	Like app better than phone call*	Like app equal to phone call	Like app less than phone call	Don't use/ don't know
Make appointments	50%	34%	12%	3%
Order medication	40%	30%	13%	17%
Order pet food	34%	23%	14%	29%
Check clinic hours	67%	22%	6%	5%
Look for veterinary info	57%	23%	7%	14%
Access pet's medical record	55%	27%	5%	13%

*NOTE: Totals may not equal 100 due to rounding.

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*90% of dogs in one group showed enhanced mobility; 88% of dogs in a second group showed enhanced mobility

References 1. Wolyniak CJ, Brenna JT, Murphy KJ, Sinclair AJ. Gas chromatography-chemical ionization-mass spectrometric fatty acid analysis of a commercial supercritical carbon dioxide lipid extract from New Zealand green-lipped mussel (*Perna canaliculus*). *Lipids.* 2005;40(4):355-360. **2.** Data on file at Merial, Inc.
3. Data on file at Merial, Inc.

MERIAL

FDA issues warning about thyroid hormones in pet food and treats

The hormones, which come from items made with livestock gullets, can cause hyperthyroidism in veterinary patients.

The U.S. Food and Drug Administration (FDA) is advising veterinarians, pet owners and the pet food industry to be aware that pet food and treats made with livestock gullets have the potential to contain thyroid tissue and hormones, according to an agency release. Pets that eat food or treats that contain thyroid hormones can develop hyperthyroidism, a usually rare disease in dogs that is typically triggered by thyroid cancer. Continued exposure to excess thyroid hormones can cause damage to the heart and, in some cases, death, the agency says.

The FDA is issuing the alert following an investigation by the Center for Veterinary Medicine into three reports of dogs from different households that showed signs of hyperthyroidism. In those cases extensive testing on the three dogs conducted at a reference laboratory showed elevated thyroid hormone in the blood but ruled out thyroid cancer, the release states. Symptoms of hyperthyroidism include excessive thirst and urination, weight loss, increased appetite, restlessness, hyperactivity, elevated heart rate, rapid or labored breathing, vomiting and diarrhea.

In interviews with the dogs' owners, researchers found that all owners had fed their dogs Blue Wilderness Rocky Mountain Recipe Red Meat Dinner Wet Food for adult dogs, or Wellness 95% Beef Topper for Dogs. On the recommendation of the reference laboratory's consulting veterinarian, those foods were discontinued for the three dogs. According to the release, the dogs' clinical signs disappeared and their thyroid hormone levels returned to normal after the food had been discontinued for a few weeks.

The FDA tested unopened cans of the food and confirmed that it contained active thyroid hormone, which is likely from the use of gullets from which thyroid glands were not completely removed before being added to the food. WellPet, the maker of Wellness, and Blue Buffalo, the maker of Blue Wilderness, have both initiated voluntary recalls of select lots of the affected products on March 17, 2017. Visit the online version of this article at **dvm360.com/thyroidrecalls** for links to more information.

Consumers should discontinue feeding either of the of the recalled foods and consult their veterinarian if their pet shows any of the symptoms of hyperthyroidism. Questions about whether a particular pet food or treat contains livestock gullets or thyroid hormones should be directed to the manufacturer of the product, according to the release. dvm360

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Law TH, Davies ES, Pan Y, et al. A randomised trial of a medium-chain TAG diet as treatment for dogs with idiopathic epilepsy. *Br J Nutr.* 2015 Nov 14;114(9):1438-47

Cast your vote for the 2017 **Practice Manager of the Year**

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Your manager could be the next dvm360/ VHMA Practice Manager of the Year. All it takes is a short survey, a few thoughtful responses and a willingness to brag about the great things your manager's done to make happy team members, grow revenue and to create a healing environment in your veterinary practice.

Practice managers: the glue that holds a great veterinary clinic together. Through the good times, the bad times and whatever comes in between, the practice manager remains vigilant with a smile. And practice managers learn, grow and work hard to make sure their practice has the best. Veterinarians and team members

with a topnotch practice manager know their practice manager deserves the best.

Look no further! dvm360 and the Veterinary Hospital Managers Association (VHMA) are partnering in the Practice Manager of the Year contest to make practice-managing-awesomeness known far and wide. We want you to let us know why you (or your practice manager) has this contest in the bag. Bragging is more than welcome here.

How do I enter?

Visit **dvm360.com/pmoy** and click on the first article, "Cast your vote for the 2017 Practice Manager of the Year!"

Is there a prize?

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- One-year membership to VHMA (~$215 value)
- Complimentary registration to the 2018 VHMA Management Exchange event ($495 value)
- Up to $1,250 stipend for travel/lodging/meals for the 2018 VHMA Management Exchange
- Complimentary registration to the 2018 VHMA Annual Conference ($550 value)
- Up to $1,250 stipend for travel/lodging/meals for the 2018 VHMA Annual Conference

Sweet! So when do I find out if I'm the Practice Manager of the Year?

This contest runs April 1 to June 1, 2017. Ten finalists will be announced at **CVC Kansas City, Aug. 25 to 28**. Then, the Practice Manager of the Year will be announced at **CVC San Diego Dec. 7 to 10**. dvm360

CVC unconventional

Veterinarian accused in murder-for-hire dies by suicide

Valerie McDaniel, DVM, accused of hiring a hit man to murder her ex-husband, commits suicide before the date of her court appearance.

According to Houston authorities, the Montrose veterinarian and practice owner Valerie McDaniel, DVM, accused of plotting the murder of her ex-husband, killed herself March 27 by jumping from her seventh-floor condo, the *Houston Chronicle* reported.

In March, McDaniel and her boyfriend were arrested and charged with solicitation of capital murder after attempting to hire a hit man to kill their exes. The court set bail at $50,000, which McDaniel posted. She was set to return to court March 28.

That same day, McDaniel's clinic, Montrose Veterinary Clinic, had this message posted on its website:

To All Clients, friends and "patients" of Montrose Veterinary Clinic

Please be advised that Montrose Veterinary Clinic will continue in our operation and in our commitment to provide the very best service possible to our clients and patients. We aren't going anywhere! Despite some recent publicity regarding our owner we assure you that our team of talented veterinarians and trusted support staff will not miss a beat in maintaining the excellent service and attention to our customers we are known for. Thank you so much for your continued support and we look forward to continuing working with you in the future!

Thank you,

Montrose Veterinary Clinic

For a more detailed look at this case, you can visit **dvm360.com/mcdaniel**. dvm360

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Technicians and cystocentesis: A closer look at veterinary supervision

Highly trained and experienced team members with the proper credentials can handle delicate procedures as well as—or better than—their bosses. So why do veterinarians have to be involved at all?

By Hannah Wagle, Assisstant content specialist

Cystocentesis, or collecting a sample for urinalysis by inserting a needle through the abdominal wall into the bladder, is the gold-standard procedure for obtaining a diagnostic urine sample. Technicians perform cystocentesis on a routine basis, either under direct or indirect veterinary supervision, depending on the state where they practice.

To perform something as delicate as cystocentesis takes time, skill and lots of training. And credentialed technicians have training in spades—they've graduated from a veterinary technology program, passed the Veterinary Technician National Exam and are required to obtain continuing education to maintain their licenses. Many of them are better at these kinds of procedures than the veterinarians they work with.

So why do state veterinary boards require a veterinarian to be involved? Wouldn't it be more efficient (and even empowering) to let technicians handle cystocentesis—and catheterization, and endotracheal intubation, and anesthesia induction, and all the other seriously tricky procedures that go on every day in a veterinary hospital—outright so that doctors can focus on the things only doctors can do?

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References: 1. Data on file, Merial, Inc. **2.** Steinberg D, Beeman D, Bowen W. The effect of delmopinol on glucosyltransferase adsorbed on to saliva-coated hydroxyapatite. *Archs Oral Biol*. 1992;37:33-38. **3.** Vassilakos N, Arnebrant T, Rundergren J. In vitro interactions of delmopinol hydrochloride with salivary films adsorbed at solid/liquid interfaces. *Caries Res*. 1993;27:176-182.

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Maybe so, but the greater issue at stake is liability, experts say. "There are a couple of serious complications for a cystocentesis going wrong," says Kenichiro Yagi, BS, RVT, VTS (ECC, SAIM), ICU and blood bank manager at Adobe Animal Hospital in Los Altos, California. "One would be bladder laceration and subsequent uroabdomen, and the other would be accidental laceration to the descending aorta and hemorrhaging."

Technicians aren't necessarily more likely to experience these complications than a doctor (remember all that training and experience?), but they are less well-positioned to deal with liability if something does go wrong. And most state boards would prefer that risk to remain in the hands of doctors, who have an even more stringent level of licensing and scrutiny than technicians—along with malpractice insurance.

On a practical level, client perception is also a factor. "If something were to go wrong, how would a client react?" asks Jim Kramer, DVM, CVPM, partner at Columbus Animal Hospital in Columbus, Nebraska. "If a doctor were to encounter a bad result, the client may be more forgiving than if the client believed the doctor to be 'too busy' or 'too self-absorbed' to perform the task him- or herself instead of delegating it."

The state of Nebraska, where Kramer practices, specifies that technicians may perform cystocentesis with indirect veterinary supervision, according to the AVMA's list of veterinary technician and assistant duties. Kramer's malpractice insurance specifies that a technician would be covered in the event of a lawsuit or complaint as long as he or she was a licensed graduate of an AVMA-accredited veterinary technician program. In California, where Yagi is based, cystocentesis is not specifically mentioned in the practice act, so it falls under the skills that can be performed with indirect supervision if a veterinarian orders it.

Rebecca Rose, CVT, founder of Catalyst Veterinary Practice Consultants in Littleton, Colorado, is a frequent speaker on issues affecting veterinary technicians. "Within a veterinary hospital, the veterinarian will ultimately be responsible for how a case is managed and how a veterinary technician is leveraged," she says. "If the vet is confident that the technician can correctly perform cystocentesis, they should be able to." Which speaks to why most state practice acts leave tasks such as cystocentesis as "unspecified."

Defining supervision

Knowing the differences between immediate, direct and indirect supervision can be tricky. Here's how the Georgia Veterinary Medical Association defines these terms, although details vary from state to state. Get familiar with your own state's practice act if you're unsure.

Immediate supervision: The licensed veterinarian is in audible and visual range of the animal patient and the person treating the animal.

Direct supervision: The licensed veterinarian is on the premises and is quickly and easily available. This also means the patient has been examined by a veterinarian in accordance with a specific delegated task.

Indirect supervision: This means the licensed veterinarian is not on the premises but has given either written or oral instructions for the treatment of the patient and the animal has been examined by a licensed veterinarian.

"The question for veterinarians is, do you trust your technician?" Rose says. "Deciding who on the team does what is a management decision, but in the end it all comes back to who is trusted and who is trained."

Speaking of training, all the experts interviewed here echoed the same line of thought: Training needs to be ongoing, it needs to involve the whole veterinary team, and it needs to involve all aspects of the state practice act.

"State practice acts have less to do with things like cystocentesis and more to do with keeping veterinary work under the aegis and purview of veterinarians," says Bash Halow, BA, CVPM, LVT, partner and veterinary practice consultant at Halow Tassava Consulting in New York City. "Practice acts ensure that animal medicine is undertaken correctly, ethically, effectively and humanely."

As a prior administrator for the Technician Association of Colorado, Rose makes it a point to get the word out about the importance of state practice acts. "We encourage veterinary technicians to attend state board meetings as observers," she says. "This helps them understand what it means to be governed by a practice act. They get the information in school but don't realize how pertinent it is to their jobs."

The veterinarian's job is not only to also know the state practice act inside and out but also to trust her team and recognize that each member has an important role to play. "Training, overseeing veterinary technician programs and helping to create these skills contributes to the growth of the whole team," Rose says. "This goes for any sort of training in the hospital." **dvm360**

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Fishing for acquisitions: 12 things corporations look for

Fat-cat investors are hungry for great veterinary hospitals to buy, and they're baiting the nation's practice owners with juicy sale checks. Here's what they want in a prize catch.

By Jane Harrell

No matter what your feelings are about the trend, investment money is flowing and consolidators are taking an increasing share of the veterinary services market. VCA's $9.1 billion sale to Mars is just one of the most recent in a line of major practice acquisitions.

"The multiples right now are huge," says Owen McCafferty, vice president of Companion Animal Practices of North America (CAPNA), a consolidator. "Practices used to be purchased at about 70 to 80 percent of gross income in small animal medicine. Now it's not uncommon to see the same type of practice sell at 100, 110 or even 120 percent. For specialty practices the multiples are even higher based on profitability."

But not every practice owner gets that much when selling to a corporation. So what makes the difference? We spoke with prospective acquirers and industry experts to find out.

And don't forget to check out **dvm360.com/goyourownway** for complete coverage.

What they want ... in a practice

Practice purchasers and consolidators aren't all looking for the same thing, says Charlotte Lacroix, DVM, JD, president of Veterinary Business Advisors. Some won't consider fixer-uppers or specialty practices. Others have to have a certain location or practice size before they'll consider making an offer. Lacroix encourages prospective sellers to do their research and find out which acquirers—whether it's one of the major corporations, an equity firm, a smaller partnership or even a private individual—are interested in their type of practice.

1. High revenue. "The larger the practice the better," says Neil Tauber, co-founder and senior vice president of development for VCA.

Many large acquirers look for a minimum of $1.3 to 2 million per year in revenue from a prospective veterinary practice but are happy to see revenue a lot higher. (Tauber notes that VCA includes practices with revenue in excess of $30 million.)

However, with so much competition for the larger practices, the market for slightly smaller hospitals is beginning to heat up, says John Volk of Brakke Consulting. Consider Len Donato, VMD, owner of Radnor Veterinary Hospital in Wayne, Pennsylvania. Donato owns a single practice, but he and two partners are looking to acquire one to two more in the coming months.

"We're looking in the niche below [$1.3 million]" Donato says, which means he's less likely to be competing with the larger consolidators.

2. More hospitals. More than one practice location can drive up an acquirer's offer. So don't make the mistake of seeing a high-priced purchase of a hospital network, doing the math per hospital and then thinking a single hospital is—or should be—worth the same.

"It's a fault in logic to think that," says McCafferty. Functional and profitable networks of practices can increase value beyond what an individual hospital is worth. The work to combine those hospitals has already been done. Efficiencies may already be in place. Also, the time and energy it would take for the acquirer to find, review and purchase that many practices individually is saved. In other words, the sum is greater than its parts.

3. A good location. "We want practices that are within half an hour to an hour of our main hospitals," says Donato. That can be fairly typical for smaller acquirers.

Other consolidators care more about urban and suburban versus rural, or whether or not the practice is located in an area where the pet-owning population is growing.

4. Room to expand. A facility that's in good shape and doesn't require much additional polish can strongly influence acquirers. A building and location with room to expand might also have an impact.

What they want ... in doctors and staff

When you look at today's corporate purchases of practices, you'll see trends for veterinarians and team members: more doctors, a demand that the seller stick around for months or years, and a proven, low-turnover staff.

5. More doctors, not fewer. The number of doctors makes a difference: Consolidators may consider practices with just two doctors, but most prefer at least three full-time veterinarians.

"If you have a two-doctor practice and one doctor leaves, it can be a struggle for the acquirer," Volk says.

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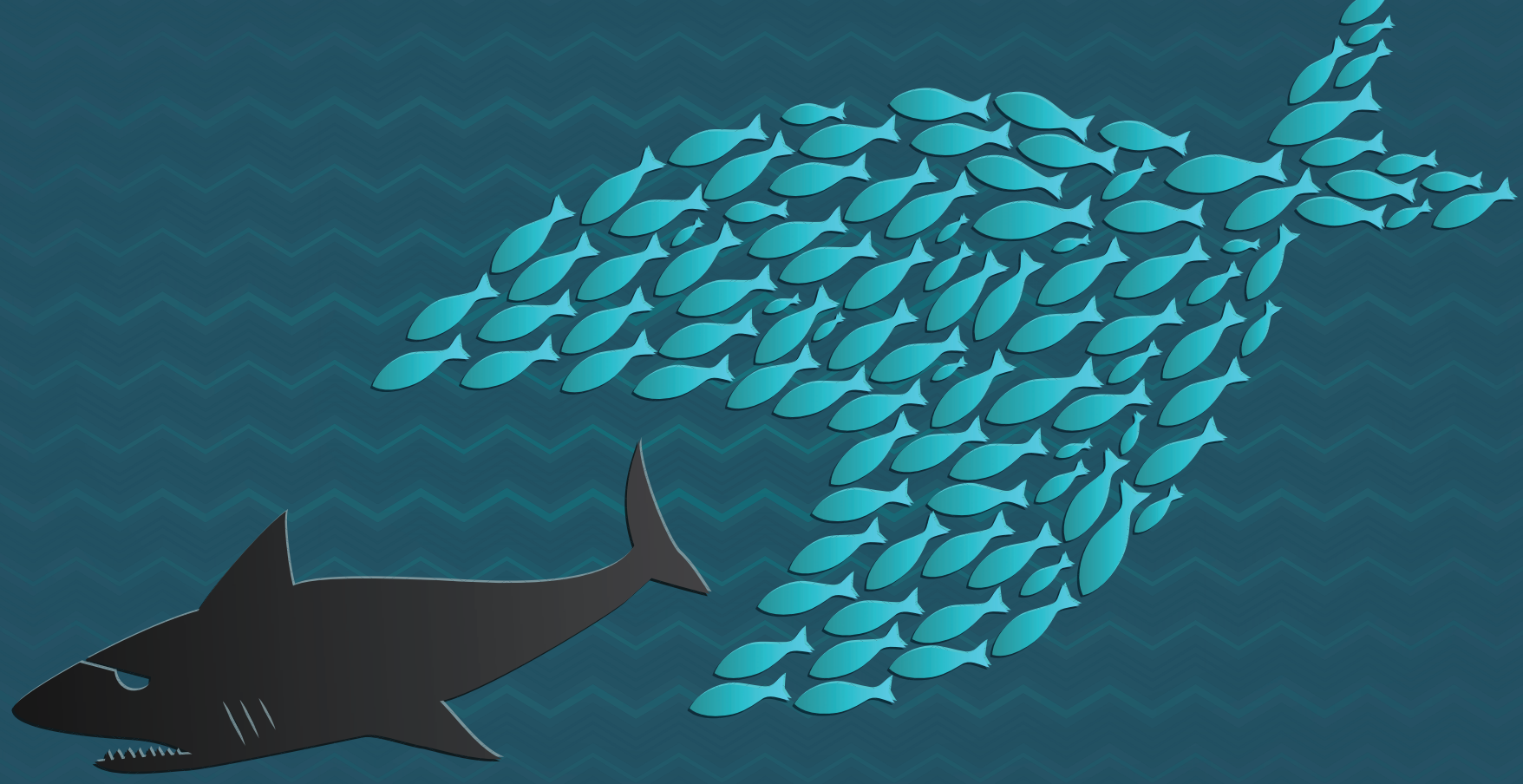

How many practices have consolidators swallowed?

Here are the most up-to-date numbers we could get on the number of veterinary practices owned by corporate consolidators and practice chains.

Company name	Headquarters	Number of practices
Banfield Pet Hospital (owned by Mars Inc.)	Vancouver, Washington	981
BluePearl (owned by Mars Inc.)	Tampa, Florida	60
Pet Partners (owned by Mars Inc.)	Bellevue, Washington	82
VCA (U.S.) (acquisition by Mars Inc. subject to approval)	Los Angeles	779
National Veterinary Associates (NVA)	Agoura Hills, California	417
VetCor	Hingham, Massachussetts	>200
PetVet Care Centers	Westport, Connecticut	96
Blue River Pet Care	Chicago	43
Eye Care for Animals	Scottsdale, Arizona	54
Pathway Partners	Austin, Texas	35
Veterinary Practice Partners	King of Prussia, Pennsylvania	35
Compassion-First Vet Hospitals	Tinton Falls, New Jersey	28
Community Vet Partners	Philadelphia	27
Mixed Animal Veterinary Associates North America (MAVANA)	Las Vegas	21
PetWell Partners	Houston	20
Southern Veterinary Partners	Birmingham, Alabama	20
Lakefield Veterinary Group	Kent, Washington	19
AZ Pet Vet	Anthem, Arizona	17
VitalPet	Houston	17
MedVet Medical and Cancer Centers for Pets	Worthington, Ohio	16
Innovetive Petcare	Cedar Park, Texas	11
O'Brien Veterinary Management	Oak Brook, Illinois	10
American Veterinary Group	Plantation, Florida	5
Heartland Veterinary Partners	Chicago	Undetermined
VetEvolve	Abingdon, Maryland	Undetermined

Source: Brakke Consulting, dvm360

DURANTELALLERA/SHUTTERSTOCK.COM

VCA's Tauber agrees: "We get approached on occasion by individuals running a single-doctor practice doing over $1 million," which usually requires at least two full-time veterinarian equivalents (FTEs), he says. "If something happens to the individual, or they choose to retire shortly after we buy it, we've really bought a broken practice."

The acquirer makes a difference here, with private investors like Donato being more open to a smaller number of doctors.

6. A practice owner who'll stick around. A practice owner who's willing to stay at least a year—or in some cases a lot longer—is highly desirable and sometimes required by the corporate buyer.

7. A long-lasting, efficient staff. Buyers want to see a team with employees who've been on board for a while and help the hospital run faster and more efficiently.

"You want to buy a practice where the staff is stable," says Tauber, who adds that VCA looks for practices with doctors who've been there at least two or three years. "If the team members have been there for five, 10, 15 years, even better."

An efficient medical workforce can also be a big attractor, Lacroix says. Think about how your team is spending its time. Are doctors supported by a strong group of technicians? This allows the doctors to focus on care and generate more revenue, possibly increasing the number of factors that attract a purchaser.

What they want ... in the financials

Many consolidators want financially strong practices to buy. The NoLo practices named a few years ago (referring to no-value or low-value veterinary businesses) will almost never bring consolidators or outside equity to the table. These buyers want the profits, the clients and straight-shooting financial discussion from the start.

8. Better-than-average profit and cost control. While most acquirers interviewed for this article said exact expectations varied by region, they did emphasize that profitability and medical staff costs are especially important.

Jim Remillard, MPA, CPC, CVPM, founder of Remillard Management Associates, says acquirers typically like to see profitability of at least 15 to 20 percent and compensation for doctors between 18 and 22 percent of what they produce. Remillard says many organizations and associations look at what veterinary hospitals are spending for leases, staffing and other costs and report these on a regular basis. When adjusted for region and demographics, these benchmarks can help hospitals understand where they stand and what ratios might be expected by—or impressive to—a particular buyer.

9. Great client retention. Seeing strong client retention data and equally strong new-client acquisition numbers can be key for an acquirer, Remillard says. However, exact numbers in these areas are a moving target in today's economy.

"For a practice with a retention rate of 80 to 90 percent, which is pretty outstanding, the number of new clients they need to acquire to replace those lost in the past year will depend on the number of doctors and the practice location," he says. "Historically we like to see every FTE doctor see at least one if not two new patients every day, but that goal is becoming more and more unattainable and unrealistic to achieve in these market conditions."

10. Honest numbers. One factor echoed by most of the acquirers and consultants interviewed here? Being honest about your hospital's financials makes a big difference. Several of the consultants noted that any practice owner contemplating selling in the coming years needs to hire the most competent accounting firm possible. Forthright accounts not only give buyers an accurate idea of your business; they also give buyers a sense of who you are as a business owner.

The "wink-wink, nudge-nudge" approach to talking about what you have on your tax returns versus what you really brought home doesn't instill a sense of confidence in buyers.

"It doesn't make a buyer feel that you'll be the most honest person when they're dealing with you," notes Donato. He added that this was his biggest red flag.

What they want ... in the fine print

These last two consolidator considerations are small parts of the overall picture, but for some buyers they can make or break a deal.

11. Associate noncompetes. While certain states don't enforce noncompete clauses in employment contracts, most acquirers will include strong noncompete agreements as must-haves where applicable, even if they have to be put in place after the purchase, notes Lacroix. Having them in place in advance helps.

12. Long-term leases with options to buy. While some acquirers may purchase the property (and many consider it a bonus), larger consolidators typically prefer to lease.

"They want to operate the business, but not be in the real estate business," explains Volk. So if you don't already own your facility, be sure to ask for things like a long-lived lease.

Property terms and price have the ability to kill an otherwise great deal. "[Acquirers] need to be able to assume a lease arrangement with the seller that they can live with financially," explains Remillard. Consolidators look for leases that have "small annual increases, or only ones tied to the consumer price index, or a very small cap of 2 to 3 percent, with an option to buy."

One last key purchase price factor that many experts mention is the less-predictable strategy behind a buyer's decision to purchase your business: What pressures is that particular buyer feeling right now?

While this may have nothing to do with you, or the current state of your hospital, a buyer motivated by outside factors has an incentive to pay a higher price. However, sellers may not have any insight into what this is, so working to make your practice as strong, stable and growth-oriented as possible—and hiring someone who can help you understand the players—are good places to start. dvm360

Jane Harrell is president of 'cause Digital Marketing. She previously served as head of pet owner communications for IDEXX Laboratories and senior producer for Petfinder.com.

Industry watch

Companies in the veterinary industry are paying close attention to changes going on in the corporate landscape and tailoring their messaging accordingly. For example, BabelBark, a technology startup that's rolling out a communication app for veterinarians and pet owners called BabelVet, offered this invitation during the North American Veterinary Conference:

"Consolidation in the veterinary industry is a worrying topic for many regional, independent veterinary hospitals. Larger, corporately managed hospitals are interconnected and leveraging technology to engage the growing population of millennial pet parents. So how do independent hospitals not only compete, but leapfrog their larger competitors? Join BabelBark ... as we unveil BabelVet, the solution to help regional and independent veterinary hospitals compete in an ever changing landscape."

Other savvy companies are likely to follow suit, if they're not already issuing a similar message. It's up to independent practices to decide if the solutions offered are legitimate tools that can help set them apart—or just another marketing ploy.

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Own it

Crippling debt + more debt = less debt? We promise there's method to this math madness, but it requires veterinary graduates to pull their heads out of their debt and consider practice ownership.

By Sarah Mouton Dowdy, Associate Content Specialist

If you're weighed down by an astronomical student debt load, the thought of taking on even more debt by starting, buying or buying into a practice may sound like a direct path to destruction. But what if, instead, increasing your debt burden in this way actually set you on a path out of your student debt woes?

We reached out to four veterinarians with practice ownership experience and an accountant/financial planner in the veterinary industry to get more details about this path. While their answers varied with regards to the specifics (as you'll read later), they all agree that practice ownership offers young veterinarians the best chance at financial freedom.

"Other than winning the lottery, receiving a giant inheritance or marrying into wealth, I can't think of another way out of student debt," jokes Ryan Gates, DVM, owner of Cuyahoga Falls Veterinary Clinic in Cuyahoga Falls, Ohio. "An associate's salary has limits, and you can only make so much headway on your debt when your salary has a ceiling."

Peter Weinstein, DVM, MBA, who started a practice he later sold to a corporate consolidator before becoming a consultant with Simple Solutions for Vets, goes so far as to ask whether recent graduates with six-figure debt loads can afford to not receive two paychecks a month—one as a veterinarian and one as an owner. "It's the best way for a young veterinarian to be able to increase their income, retire their debt and live a comfortable lifestyle," he explains.

Still, practice ownership isn't for everyone. But if you think it might be right for you, what are your options?

In support of saving up and starting up

As long as you can afford to live while establishing a client base, Christopher Allen, DVM, JD, who provides legal counsel to veterinarians at Associates in Veterinary Law, says starting a new practice is likely the most lucrative option (in the long term) for young veterinarians.

"There's no question that if you were to start with a client base of zero and end up with a practice that's grossing a million dollars, you're ultimately better off than if you were to buy a practice for a million dollars and eventually work to where it's worth a million and a half," he explains.

Allen readily acknowledges that this path is more difficult than it was for earlier generations. He still believes it's possible, though it may require delaying life events like marriage and children in order to survive the months (years?) it will take to build a client base.

The benefits of buying

Allen is not, however, against buying. "It's certainly easier to get funding when you're buying an established practice," he says.

If you're intimidated by corporate consolidators, don't be, says Weinstein. "There are plenty of quality, profitable practices that can be purchased by young veterinarians if they take their time and find the right practice," he says. The advice is simple enough, but what does it look to take your time and find the right practice?

Take your time

Fresh graduates need time to practice and polish their clinical and leadership skills before buying (or starting) a hospital, says Dani McVety, DVM, owner of Lap of Love Veterinary Hospice and In-Home Euthanasia in Lutz, Florida. "Simply put," she says, "the vast majority of young veterinarians will not be ready to lead a team of technicians, doctors, accountants and lawyers without first understanding and implementing the medicine they were trained to do."

That's why McVety is adamant that "good mentorship should be the most important factor in choosing a first job—more important than salary." Gates echoes these sentiments: "New graduates with ownership aspirations should first work toward being the best veterinarian they can be, and if they can do this at a hospital with quality mentoring, all the better."

McVety advises young veterinarians to use this time wisely and thoughtfully. "You will find yourself pulled into and out of things you like and dislike," she says. "Embrace those differences and cultivate your strengths, but also be aware of weaknesses—both in yourself and in those around

you." Learn what you can and cannot tolerate. This will come in handy when choosing the right practice.

"For example," McVety explains, "your first job may be at a practice that gives steroids and penicillin to every patient because they offer the highest profit margin. This may help you realize that working for a clinic in which you can't choose which drugs to stock would be unacceptable."

McVety believes you're ready to consider ownership when: 1) You feel confident with 80 percent of the patients that walk through the hospital door, and 2) you enjoy looking at charts and listening to business advisors.

Everyone's timeframe for meeting these conditions is different. It may take you three months or three years, "but once these things don't scare you, go for it," she says.

McVety also offers a side note about franchises: "I don't suggest buying a franchise right out of graduation, and I think most franchisors would agree with me," she says. "We are no longer franchising at Lap of Love, but I can tell you that while I have no problems hiring new graduates, it is the doctors with two to six years of experience who really flourish. They have their 'flow' down and better understand the intricacies and inconsistencies of veterinary medicine."

Choose the right practice

Taking your time is also good advice when it comes to finding the right practice. "You can't be in a rush," Weinstein says. "This isn't speed dating. Even if you find the right practice, the owner might not be ready to sell."

Location deliberation. The most basic first step you can take is to decide where you want to live. Allen implores young veterinarians to do so with cost and competition in mind. If you want to live in an urban area, buying a practice is going to be more difficult. "For example, if you want to live somewhere like Orlando, you're going to have a tough time because everyone wants to be there," Allen says. "Even if you're able to buy a practice, keeping clients will be challenging because there's a competitor on every corner."

Cost of living adds up too. "I know a veterinarian in New York City making $200,000 a year who is barely scraping by," he says.

Still, "there are still a lot of profitable small practices in isolated areas around the country," Allen continues. "I can think of six rural practices off the top of my head that would make new graduates a ton of money, but they're in the snowbelt and just aren't selling."

Successful and appropriate. Though Weinstein sees practice ownership as the quickest way out of

"You can't be in a rush. This isn't speed dating. Even if you find the right practice, the owner might not be ready to sell."

— Peter Weinstein, DVM, MBA

Check it out: Here's what dvm360's sister publications are up to:

Vetted™

"Corporate medicine" means different things to different people, and those differences of opinion are creating fragments in the profession. We're busting out big questions: Is it better for the pet? And can we come together, or is it up to everyone to go their own way? Plus, 17 differences between selling to a corporation and an associate, and a series of Vet Confessions on the struggles with managing, owning and buying veterinary practices.

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As the leadership of veterinary medicine changes, so do the people who are choosing to own practices. For veterinary teams, this means a broader variety of potential types of practices to work in, including corporately owned practices. It's also opened up avenues for team members to own. Here's a closer look at what this changing landscape means for the veterinary team.

To find all of this coverage, plus online-exclusive content, head over to dvm360.com/goyourownway.

debt, it isn't a foolproof path. "Buying a practice that hasn't been successful in the past or that doesn't have sufficient profitability or cash flow can exacerbate your situation," he says. Weinstein defines sufficient cash flow as a million dollars or more and advises young veterinarians to only consider practices that are grossing that amount.

Better still, look at practices with sufficient cash flow that are fixer-uppers, says Fritz Wood, CPA, CFP, a veterinary business and financial consultant. If the building's appearance is a little dated, you might get a better price and then make easy cosmetic changes that bring the practice into 2017 (and bring you more business).

To determine an appropriate practice, return to McVety's advice: Know your strengths and what you can and cannot tolerate, and pursue a practice that ticks your boxes.

Keep your professional friends close. Once you have a practice in mind, seek advice from people you trust who also have experience in the veterinary field, including accountants, attorneys, consultants and bankers. "All of these people can help you make logical decisions as opposed to emotional ones," says Weinstein.

It also helps to have friends as partners if work-life balance is a primary concern. Weinstein posits that three veterinarians who want more control over their lives may want to join together to buy a two-person practice in order to have more schedule flexibility. "You can even add a technician and a manager, and all five of you could come together to buy a practice," he says. "That way, everyone has skin in the business and is looking to make it more successful and profitable."

If you aren't convinced you want to own a practice, that's OK—it's definitely not for everyone. Just make sure your decision hinges on your interests and aspirations and not your current debt load. **dvm360**

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Reference: 1. Lombard CW, Jöns O, Bussadori CM; for the VetSCOPE Study. Clinical efficacy of pimobendan versus benazepril for the treatment of acquired atrioventricular valvular disease in dogs. *J Am Anim Hosp Assoc.* 2006;42(4):249–261.

Please see Brief Summary on page 24.

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Don't put me in a box:

Data on veterinarians' views of corporate medicine

What does the future hold? We asked readers and experts for their thoughts.

How do you feel about corporate ownership of veterinary practices?

*Percentages don't total 100% due to rounding

Let's predict the future!

There is more competition from corporate practices, so running a strong business is important.

Agree 74% | Neutral 16% | Disagree 10%

Experts: 5/5 agree

Veterinary practice owners will find it easier than in the past to sell their practices.

Disagree 59% | Neutral 30% | Agree 12%

Experts: 4/5 disagree

There will be more total veterinary practice locations in the United States

Agree 44% | Neutral 31% | Disagree 25%

Experts: 3/5 agree

What forces will drive the most change in the profession over the next 5-10 years?

> *Corporate medicine and the merging of practices to provide a higher level of care, 24/7.*

> *New grads will be compelled by the financial burdens of their student loans to work for large veterinary groups.*

> *Student loan-to-income ratios. The high debt-to-income relation makes purchasing a practice more nerve-wracking.*

> *Competition; primarily from corporate practices, increasing sophistication of pet owners and the changing role of the veterinary technician.*

> *The reluctance of associates to take over practices.*

Experts say:

- ✓ Corporate consolidation
- ✓ Less client loyalty to specific practices
- ✓ Changing U.S. demographics
- ✓ Willingness to change by practice owners

SOURCE: DVM360 CLINICAL UPDATES: THE FUTURE OF VETERINARY MEDICINE SURVEY, 2016

Who are the experts?

John Volk a senior consultant with Brakke Consulting.

Karen Felsted CPA, MS, DVM, CVPM, a financial and operational consultant at PantheraT.

Denise Tumblin, CPA, president and owner of WTA Consultants.

Bash Halow, LVT, CVPM, a partner at Halow Tassava Consulting.

Ernie Ward, DVM, a writer, speaker and regular contributor to dvm360.com.

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Should you fear corporatization?

Does the corporate "boogeyman" have you worried that independent private practice won't be an option in the future?

The dvm360.com editors analyzed data, mined our shared market knowledge and had many long (really long) meetings about how we should address the issue of corporate medicine in our coverage, especially in light of recent events (hint: The Mars-VCA aquisition, for one).

In the end, we decided it was best to ask our "brain trust" for their real-life experiences and perspectives. We created a panel made up of regular contributors, new faces and industry veterans, who together create a spectrum of voices that represent the many angles of this issue. Here are some highlights. (P.S. Got beef with any of this? Tell us. Email **dvmnews@ubm.com**.)

Is more corporate ownership of veterinary practices a good or a bad thing? Why or why not?

In general, corporate ownership forces private practices to step up their game, bring more structure to their businesses, learn to lead more effectively, and reach for novel business models and decisions. Consolidation in general means that larger groups can trim expenses, lean down their administration costs, and provide team members access to high-quality continuing education and other benefits. In general, consolidated practices can be more competitive in many, many ways.

But consolidation also has a down side. Larger organizations may not be as agile in responding to market changes, allowing smaller, leaner organizations a chance to jump on opportunities more swiftly. Corporations also have a more difficult time humanizing their presence on social media, an effective pipeline to clients that private practices can more easily and affordably leverage to their benefit.

—Bash Halow, LVT, CVPM

In my opinion, private and corporate veterinary practices are both good because they give practitioners and pet owners choice. I can only speak to my experience at Banfield—personally, I view corporate ownership as a good thing because we gain the skillsets of each individual entity, ultimately making us well-rounded. At Banfield, we all bring different backgrounds and expertise, and it's those varying experiences that enable corporate practices like ours to impact more pets' lives—and offer even greater workplace environments for associates. I see firsthand all the time how Banfield leverages its size for good. In corporate practice, our scale enables us to give back to communities (whether through charitable donations or paid volunteer time), offer our associates great benefits and get involved in the causes that matter to them (student-debt reduction, for example), and more generally help increase their well-being and lifestyle on work and personal levels.

—Kimberly-Ann Therrien, DVM, vice president of veterinary quality, Banfield Pet Hospital

It's probably a good thing on an individual basis. There will probably be better managed practices that will afford employees better schedules, pay and benefits than a more poorly run independent hospital. It will be good for practice owners getting ready for retirement, as the corporations are paying a premium on practices. In the long run, though, I worry that it may not be in the best interest of the veterinary profession to be mostly owned by corporations—corporations that are primarily about business. Yes, the business of veterinary medicine will likely improve via efficiency and economy of scale, but at the loss of the small, local, community practice.

—Greg Nutt, DVM

I've always seen them as 'the evil empire' and would never consider working for a corporation. However, I know how our profession has changed, and I can see how it might be a good thing. As our new graduates accrue more debt to become veterinarians, I'm not sure how any of them could ever become practice owners. This I find very sad. So, maybe it's more of a necessary thing than a good thing. Also, I think more and more corporate ownership might turn our profession into more of a service industry—like going to work for a glorified McDonald's.

—Elizabeth Noyes, DVM, MS, PhD

From the standpoint of providing a viable exit strategy for practice owners when associates are unable or unwilling to take on the financial and emotional challenges of ownership, more corporate ownership is good. But it's bad in that it reflects the ongoing economic challenge of rising veterinary student indebtedness versus earnings potential. According to a *New York Times* article, the ratio of debt to income for the average new veterinary school graduate is practically double that of a medical doctor's burden. One consequence of these economic pressures has been the emergence of large corporate-owned practices to take advantage of economies of scale. Given this, it appears that this trend will likely continue.

—David Bruyette, DVM, DACVIM

Is more corporate ownership of veterinary practices a good or a bad thing? Why or why not?

More ownership may not be a bad thing, but the profession as a whole will benefit from the public having choices in their communities. Some folks want what corporate has to offer; others loathe corporate and want the feel that an independent practice can provide. With the graduate debt situation as it is and the apparent trend of newer veterinarians being less interested in practice ownership, the golden generation of veterinarian practice owners will be looking to sell their practices for retirement, and I'm concerned that corporate buyers will be the most profitable option. Should this play out, communities will see their choices in animal health care reduced.

—Ryan Gates, DVM, Cuyahoga Falls Veterinary Clinic

I've worked at both corporate and independently owned practices, and ultimately I left corporate because I did not feel like my voice mattered. On the other hand, corporate practices did offer good benefits and there are certainly many privately owned practices that have toxic owners as well. I was lucky that I found a great one! But if I had to choose an answer on corperate ownership being a good thing or bad thing, I'd say it's a bad thing.

—Kat Hodes, DVM

A larger group of hospitals and corporate ownership is not a disservice to the pet owner nor the veterinary team member. One advantage is lower overhead and greater purchasing power providing that practice a higher profit margin. This allows the practice to purchase additional medications to stock for the clients, new diagnostic tools, cheaper in-house blood work, in-house ultrasound machines, or new CT or MRI machines. These savings allow for better medical care for our clients and their pets. Corporate practice also allows veterinarians to focus on the medicine rather than the burden of management responsibilities.

—Garret Pachtinger, VMD, DACVECC

Meet our panel




Top row, left to right:
Bash Halow, CVPM, LVT
Greg Nutt, DVM
Elizabeth Noyes, DVM, PhD
Jessica Goodman Lee, CVPM*




Top row, left to right:
David Bruyette, DVM, DACVIM
Garrett Pachtinger, VMD, DACVECC
Kimberly Ann Therrien, DVM
Ryan Gates, DVM




Bottom row, left to right:
Kat Hodes, DVM
Jeff Rothstein, DVM, MBA*
Sarah Wooten, DVM*
Oriana Scislowicz, BS, LVT*

These individuals aren't quoted in this article, but did contribute to other articles in this package. Go to* **dvm360.com/goyourownway *for more.*

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Rural outage

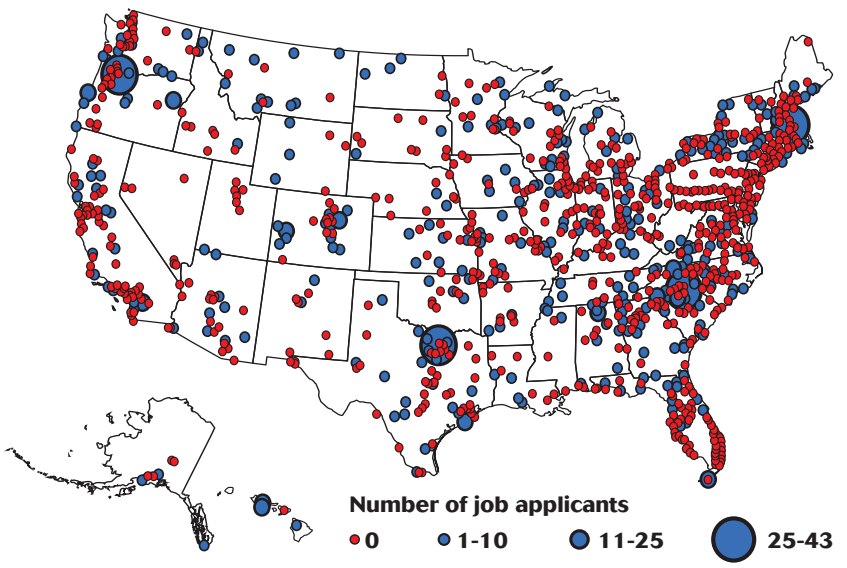
In Colorado, a rural veterinary practice with no mobile service and clients lined up at the door every morning struggles to find a buyer. Owner John Davis, DVM, MS, MBA, has thrived there for 40 years, but when he retires, an entire county will be left without a veterinarian.

In rural Kentucky, Mike Williams, DVM, and his wife just bought a second clinic and are expanding their first. But they may have to slow their growth because, after two years of searching, they have found only one associate willing to sign on to work in the area.

With new veterinary schools forming, class sizes growing and 3,000 veterinarians a year entering the workforce, how is it that practices offering attractive positions and packages struggle to find veterinarians willing to sign on? For more on the scope of the problem and answers about what can be done, go to **dvm360.com/goyourownway**. dvm360

A quick look at where the jobs are

On this map, created by the American Veterinary Medical Association's Economics Division based on data from the Veterinary Career Center, the blue dots show the number of applicants per employment opportunity in a specific location, and the red dots show the locations where a specific employment opportunity drew zero applicants. In 2016 the number of available employment opportunities exceeded the number of applicants on the Veterinary Career Center.



Source: AVMA Veterinary Economics Division

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Veterinary prescriptions: The point of no return

Does a legacy of above-and-beyond client service hold up to the hard-and-fast rules that govern a veterinary practice?

Ginny House lived alone with her 12-year-old Lab named Billy. A daily nonsteroidal anti-inflammatory drug (NSAID) allowed Billy to run and play instead of groaning when he tried to rise after napping on the tiled kitchen floor. Billy had been a patient at the Harvest Veterinary Clinic for all of his 12 years. Ms. House liked the staff and medical care but also enjoyed the efforts they extended to meet her every request.

As an elderly single woman, she often needed help getting Billy to the clinic. The veterinary staff went above and beyond to help her with her 92-lb pet. When the weather got bad, the clinic saw that Billy's medications got to her doorstep. When distasteful medicine was dispensed, they took the medication back and replaced it with something Billy wouldn't reject. Service like this had made the Harvest Veterinary Clinic very successful.

As is true with many 90-lb 12-year-old Labs, Billy's age caught up with him. Several incapacitating senile afflictions led to the decision to euthanize Billy. Needless to say Ms. House was devastated. After a period of grief and a need for canine company, she got a new dog, but this time it was a little Yorkie. When she brought him in for his first puppy exam she brought Billy's leftover NSAID tabs and his unopened flea and tick preventive to return for credit.

Ms. House was informed that she could no longer return previously dispensed medication. She responded by saying that this had never been an issue in the past. Her veterinarian agreed that was their previous policy, but current standards followed by human drug stores had altered the way many veterinarians ran their in-house pharmacies. He went on to say that most pet owners did not want medications that had been returned and were previously in the possession of another pet owner.

This upset Ms. House. She asked if the doctor was implying that she had contaminated Billy's medicine. She then remarked that the flea and tick preventive she was returning was still in its sealed package. "This is very expensive medicine," she told the veterinarian. "If I had known about your new policy, I would have purchased a much smaller quantity."

The veterinarian understood her situation, and in the spirit of the clinic's excellent customer service directive acceded to Ms. House's wishes. It was understood, however, that future medication purchases would not have a return option. Ms. House appreciated the accommodation. She did go on to say that the prohibition of the return of sealed medication was inappropriate and a client hardship. The doctor saw her point but stated that 21st-century drug-dispensing precautions allowed the profession and its patients to be better safe than sorry.

Do you agree with these new medication return policies, or should they be handled on a case-by-case basis?

Rosenberg's response

I can only think of three or four medication-return issues among the literally thousands of prescriptions I have filled. If your goal is to assist your clients as much as possible, accept returns of prepackaged unopened medications. But make it clear that unsealed medications prepared from a master pharmacy supply are not returnable.

In addition to informing the client about this policy, monitor the amount of medication being dispensed carefully so as not to send home more than is needed. For heaven's sake, don't charge a restocking fee for returns. These fees along with hazardous waste disposal charges lead to client resentment. If you must recoup these costs, incorporate them into general overhead considerations.

The veterinarian in this dilemma was right to make an accommodation for a valued client. Fine practices are not built on inflexible rules and strictly a desire to help the bottom line. A well-thought-out general policy concerning medication returns is a good idea, but well-considered exceptions to meet pet owner needs are always wise. **dvm360**

Dr. Marc Rosenberg is director of the Voorhees Veterinary Center in Voorhees, New J.ersey. Although many of his scenarios in "The Dilemma" are based on real-life events, the veterinary practices, doctors and employees described are fictional.

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Empathy: An unhealthy path for veterinarians

Empathy is powerful, but it can be harmful to our well-being. We're better off offering sympathy and compassion.

There's an alarmingly high rate of suicide among veterinarians. Of veterinary graduates, 14.4 percent of men and 19.1 percent of women have contemplated suicide since graduating. This is three times the national mean. Even more startling, 1.1 percent of males and 1.4 percent of females have attempted suicide since graduating from veterinary school.

In our profession we are impacted by the realities of life and death, euthanasia of animals we could help, relative lack of acknowledgment and appreciation, and the financial burdens of unbearable debt loads.

Yet most in the profession can balance those experiences and emotions; fortunately, few of us become clinically impacted to the point of depression and even suicide. I've often wondered why it is that while most veterinarians share these experiences, not all have such extreme reactions.

While I'm not trained in psychology or behavioral sciences, I have struggled with feelings of inadequacy and depression. And I've tried to understand what leads to such emotional excess.

Most of us are familiar with the term "compassion fatigue." According to the Compassion Fatigue Awareness Project (compassionfatigue.org), one expert defines this condition as "an extreme state of tension and preoccupation with the suffering of those being helped to the degree that it can create a secondary traumatic stress for the helper."

No surprises there. But I recently came across a term I was unfamiliar with. In a *Psychology Today* article, psychologist Krystine Batcho, PhD, uses the term "heartworn" to describe what happens when people are bombarded and ultimately overwhelmed by daily assaults of sadness and tragedy.

Regardless of what we call it, the results can be devastating, and most veterinarians are affected to a degree. We're expected to be understanding, supportive, sympathetic, compassionate and empathetic. Though these terms are often used interchangeably, they're not the same thing. Empathy and sympathy are related phenomena, but they are very different.

I always understood that empathy was a wonderful thing, but experts have begun to assert that it can be an inappropriate and even dangerous emotional response to the suffering of others. I recently watched a YouTube broadcast of the presentation "Empathy, Is It All It's Cracked Up to Be?" by the Aspen Institute. Now I look at empathy, sympathy and compassion in a new way:

> Sympathy refers to commiseration, pity or sorrow for someone who is experiencing misfortune. It's a general feeling of sorrow for another person's situation and refers to feeling sorry for another's hurt or pain. People experiencing sympathy say, "I feel sad for you."

> Compassion indicates a real desire to help, to take action in an effort to alleviate pain, sadness or suffering. People experiencing compassion ask, "How can I help?"

> Empathy involves taking on another's feelings and thoughts and experiencing them yourself. Excessively empathetic people internalize another person's feelings and absorb their pain. They dwell on another's experience of sadness, which can lead to suffering, pain, loss of objectivity, severe depression and thoughts of suicide.

Because repeated exposure to sadness can result in emotional exhaustion and compassion fatigue, empathy might not be the best response for veterinarians to experience on a routine basis. Grief coupled with empathy can run amok, to the detriment of our patients, our clients and ourselves.

So keep your perspective. People may assert that there's no such thing as too much empathy, that politicians, religious leaders, community activists and everyone else should feel more empathetic. Really? I would say it's a good idea to separate empathy from compassion and sympathy.

In his book *Against Empathy: The Case for Rational Compassion*, psychologist Paul Bloom, PhD, elaborates on the unhealthy effects of empathy. Bloom says empathy has a "spotlight effect"—that is, the act of feeling someone else's pain causes us to zoom in on that pain. We want to do something about it, often at the expense of ourselves or other, more important causes. And frustration and disappointment at being unable to alleviate the pain of another can result in depression.

Rather than empathy, Bloom advocates for rational compassion, or "simply caring for people, wanting them to thrive." Rational compassion is a feeling of goodwill toward our fellow humans in general.

What does this mean for you and me? We should feel and express sympathy for the situations and pain of our clients, our patients and others. We should be compassionate and take appropriate steps to help them when possible. But when it comes to sharing in their pain, we should stay in our own lane and stand in our own shoes. **dvm360**

Dr. Mike Paul is the former executive director of the Companion Animal Parasite Council and a former president of the American Animal Hospital Association. He is currently the principal of MAGPIE Veterinary Consulting. He is retired from practice and lives in Anguilla, British West Indies.

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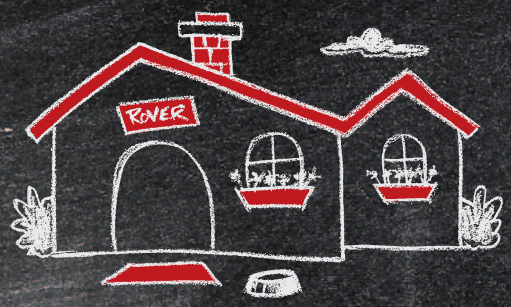

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‘Maybe I should start looking for **another job** . . .’

Drs. Codger and Greenskin face a crossroads, with both of their futures hanging in the balance.

It might just be a miracle, but Drs. Codger and Greenskin have actually set aside some time to talk over a few issues. As it turns out, that last drop-everything-emergency (see the April issue of dvm360) turned out to be a happy wiggling puppy with kennel cough. The pet owner, receptionist and even the new head assistant were all thoroughly convinced the poor pup was choking to death on a rawhide. Timing and situation were fortuitous, as the scene afforded the young and old veterinarians the chance to smile and assure the rest of the crowd that the puppy was going to be just fine.

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OLD SCHOOL, NEW SCHOOL

Jeremy Campfield, DVM

Now, Doc Codger knows something is amiss with his associate. While nobody ever accused him of being the world's best personnel manager, he has enough sense to realize that Dr. Greenskin's concerns demand immediate attention. He tells the front office team to block off the next hour, and Dr. Greenskin follows Dr. Codger into the well-lit and cozy pharmacy.

It's a big improvement from the break room "dungeon" where their conversation began. While the pharmacy is not large by any stretch, two doctor's stools fit without a problem, the door latch works and, well, what else could you possibly ask for in a veterinary hospital meeting place?

Their paths meet …

Dr. Greenskin is now feeling thankful for the interruption. She knows she might have said some regrettable things to Dr. Codger if it hadn't been for that "emergency." She's had a minute to disconnect and refocus, and she feels a bit more prepared to face the issues with professionalism and restraint.

With a deep breath, she begins to explain her difficulties with the clinic's antiquated on-call policies. She continues, "I know the team at our local ER and they're all fantastic. Wouldn't it be advantageous for our clients and patients to go 15 minutes up the road for their after-hours emergencies, where they have a full team ready and able to provide excellent care? I know the ER will work with us closely and treat our hospital with respect, as well as support the relationships we have with our clients."

Dr. Codger takes a long, thoughtful pause. He counters by explaining that "being there" for his clients has been a cornerstone of building the practice. "There's also the business advantage of seeing our own emergencies," he says. "That income helps cover our obligations every month, including payroll."

Dr. Greenskin can tell Dr. Codger is doing his best not to sound dismissive, but that last payroll comment irks her. She feels her poise slipping a bit. "None of my classmates are subject to this kind of scheduling, Dr. Codger," she says. "When I tell them about how we run things here, they seem to think our approaches are very outdated. I know your clients love you, and you don't want to let them down. But I don't think there's another DVM out there who would sign on for my schedule."

Her tone grows sharper. "Frankly, I'm inclined to ask you to cut my regular shifts at this point," she continues. "If you're going to continue to demand hours and schedules that negatively impact my life and my personal health, I may just need to back off my commitment here. At least that would give me time to start looking for other jobs."

… and separate again

Both doctors look a little stunned. Dr. Greenskin wishes she could take back that final comment, but her words linger in the air of the small pharmacy, along with the familiar homey scent of injectable vitamins.

"So I take it you're not interested in ownership then?" Dr. Codger finally manages to ask. "I was excited about the idea of handing over the reins to you, Greenskin. I think it could really be a great thing for you. And we've all come to enjoy having you as part of the family."

Dr. Codger can't help but be impressed by the backbone displayed by his young associate, who only a couple years ago couldn't neuter a cat in less than 20 minutes.

"Not without some changes in the things we just talked about," Dr. Greenskin replies. "I wouldn't run the practice this way, and I doubt anyone else would, either. If you mean what you just said, then let's start making some changes. In the meantime, you need to find someone else to take call and take care of the boarders on the weekends. I'll take one weekend a month emergency call to help out, but that's it from here on out."

Dr. Codger can't help but be impressed by the backbone displayed by his young associate, who only a couple of short years ago couldn't neuter a cat in less than 20 minutes. On the other hand, he's concerned about the future of his practice and his own retirement. He hears the undertones of truth ringing in Dr. Greenskin's words, but he feels they're muddled by the whining of a generation that never learned the meaning of a "hard day"—or the true value of a dollar.

The conversation goes on …

Where will this meeting land our two favorite docs? Is this the end of a bumpy road for two veterinarians who tried but were ultimately incompatible? Or are we going to start seeing a melding of generational philosophies? Maybe both sides can learn some new tricks. Find out next time in Old School New School! dvm360

Dr. Jeremy Campfield works in general practice in California's Sacramento Valley. He is an avid kiteboarder.

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Why outside investors **want in** on the veterinary profession

Economic indicators for veterinary medicine are not all rosy. And still private equity is pouring in to buy veterinary practices. Here's where they see potential.

In a competitive market, money flows toward the best opportunity. Which suggests that veterinary hospitals offer a better return than other types of businesses. Think not? Investors are likely focused on the potential for increased client compliance. In fact, closing the gap between needed care and purchased care offers a five-fold opportunity in revenue growth. And that's enough to get (almost) anyone's attention.

While it's clearly unrealistic to expect you could turn around tomorrow and capture the total value of care required by all pets, it is possible to close the gap. More profitable practices estimate that the lifetime value of care they're providing is more than double that \$3,600 figure. And even relatively modest improvements represent considerable growth potential when you look at the total number of pets you see in a year (see Figure 2).

The decline in Americans' purchasing power over the past two decades is widening the gap between the care pets need and what pet owners will pay for.

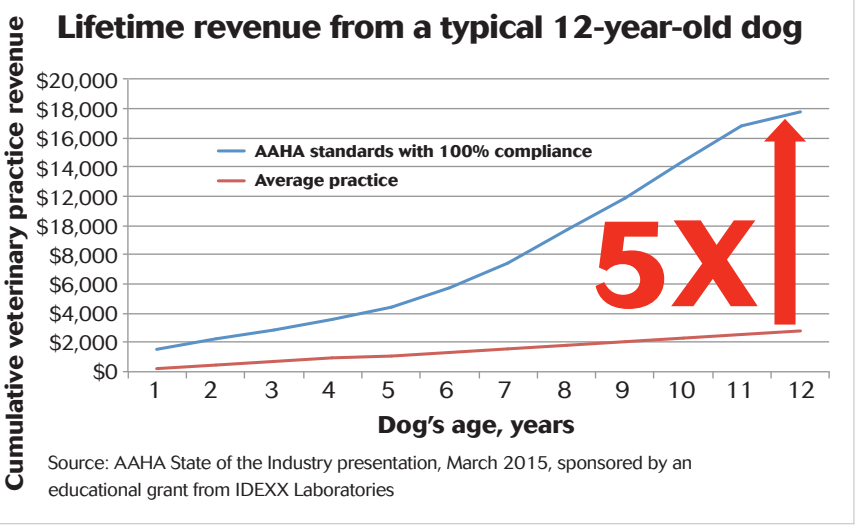
Breaking it down

First, IDEXX recently estimated that, for an average dog living 12 years, total client compliance with American Animal Hospital Association standards of care would produce \$17,700 of gross practice revenue over the dog's lifetime. However, the average veterinary practice currently provides \$3,600 in services for that same dog (see Figure 1).

What's holding us back?

Your everyday experience shows there are barriers to overcome. When you adjust for inflation, U.S. household incomes declined over the past two

FIGURE 1



Source: AAHA State of the Industry presentation, March 2015, sponsored by an educational grant from IDEXX Laboratories

FIGURE 2

What if you could provide more ideal care?

% total required care purchased		Potential revenue per dog	=	Revenue per dog	X	Revenue if 1,000 dogs visit—12 years
	20%	$17,700		$3,600		$3,600,000
+5%	25%	$17,700		$4,425		$4,425,000
+10%	30%	$17,700		$5,310		$5,310,000
+15%	35%	$17,700		$6,195		$6,195,000
+20%	40%	$17,700		$7,080		$7,080,000

FIGURE 3

Pushing down compliance

You know it's happening, but here's some numbers-based validation

Pet owners ↑ pets in the U.S. + ↓ in median household income (adjusted for inflation) = ↓ **PETS** going to the vet

And here's the rub!

The decline in Americans' purchasing power is widening the gap between what pets need and what their owners will pay.

Veterinary practices ↔ flat # of invoices + ↑ total revenue = ↑ Fees.

In fact, since 1998 veterinary fees increased at more than 2x the rate of other goods and services.

decades. And at the same time, the cost of veterinary care increased at more than twice the pace of other goods and services. So we're seeing a widening gap between the veterinary care pets need and what pet owners will pay for. The future health of the veterinary profession (and those investors' returns) depends on finding effective strategies to close this gap. **dvm360**

Take note

The AVMA is looking for 50 owner-manager teams to take part in its Practice Profitability working group in Indianapolis. New areas include Basic Budget Development and Market Share Identification, with instructions on how to use these tools for practice success. Registration for the AVMA Convention is required. For applications and more information, email avmaecon@avma.org.

AVMA | Veterinary Economics

Michael Dicks, PhD, is director of the AVMA's Veterinary Economics Division. He holds a doctorate in agricultural economics fro the University of Missouri. Send questions or comments to dvmnews@ubm.com.

Here's lookin' at you, contract

These lessons learned from my visit to the real-life Rick's Café from the classic film *Casablanca* can help you get what you really want out of your veterinary employment contract—whether you're the practice owner or the associate.

A trip I took to Morocco a few years back came to mind today as I was counseling a young veterinarian on how to negotiate an employment contract. During our conversation it occurred to me that negotiation is not simply about identifying what you want and asking (or insisting) that you get your way. Rather, it's an art—like successfully operating a swanky restaurant.

Just like in the classic Humphrey Bogart film *Casablanca*, there is indeed an elegant eatery called Rick's Café in the city from which the film gets its name. Though the upscale establishment is less than two decades old, it's designed to transport patrons to the World War II-era establishment they fell in love with in the movie, which is precisely what I was hoping for when I stepped inside. I wanted one evening in which I could pretend I was Bogart, biding my time in a 1940s "gin joint," and Rick's Café delivered. I, in turn, handed over my money.

At the end of the evening, the restaurant's management and I both felt like winners—just as both parties should feel when an employment contract is successfully negotiated. Taking inspiration from my experience at Rick's, I'll elaborate on how it can be done.

Practice owners: Environment matters

The staff of Rick's Café goes above and beyond to make patrons feel welcome and special. The owner greets guests at the door, and the small number of tables makes the experience feel intimate and personal. Patrons are encouraged to come early and stay until closing.

Bright young doctors embarking on their careers after many years of sacrifice and economic hardship want to be treated like they are special too. So if you want a top candidate to join your professional team, treat your top applicant as if he or she just graduated as a doctor after

eight years of grueling work.

In other words, skip having the second or third interview in the clinic breakroom, with its crumb-covered tabletops and mingled aromas of stale coffee and recently unblocked cat. Your salary and benefits offers will look (and smell) a lot more palatable if you invite the interviewee out for a nice lunch, or—better yet—to dinner with his or her spouse. You're about to commit to spending a lot of time around this person, so take the time to get to know the associate before inking the deal.

Associates: It takes finesse to flourish

You won't find Rick's Café on a top 10 list of any Condé Nast publication, and it probably gets only a star or two in the Michelin Guide. The food is average—but the presentation isn't. The servers and hosts, dressed exactly as the staff in the film (fez included), bring the relatively prosaic meal to your table with great fanfare and flourish. The delivery is so enchanting that it enhances the food.

Learn from this. If there are things you want (like extra CE days, a less constrictive noncompete or a higher salary), don't just blurt, "I have problems with some of the items in the contract!" Instead, make your negotiating counterpart feel comfortable with revisiting the CE, noncompete and salary issues.

Practice owners don't want to hear that you "expect more time off for CE." The want to hear that you're "committed to maintaining the highest professional standards," and they want details about how your "knowledge of every available diagnostic and therapeutic modality" will make clients comfortable choosing what costs a little more but works far better.

The noncompetition discussion will require a certain je ne sais quoi (as they might have called it at Rick's) as well. Instead of approaching the issue in a matter-of-fact or confrontational manner, try detailing the reasons you're committed to the community where the job is located and therefore might need to take another position someday, if, perchance, your spouse gets a job on the other side of town or some such.

Be prepared to offer alternatives. If the noncompete is a 10-mile radius, for example, you could propose a new one that prevents solicitation or serving of clients of the practice for two years within a six-mile radius. It's a compromise that shows you respect your boss's needs without unduly limiting your future local job opportunities.

If you feel the salary is subpar, come to the meeting with a spreadsheet that breaks down your costs of living, including student loan payments, car payments, rent, groceries and utility bills. This way you won't have to pound your fist on the table to support your request for a higher offer. Merely demonstrating that you are a hapless victim of inflation and outsized veterinary school tuition makes the point for you.

Practice owners: You may need some finesse too. If your candidate is chafing at the thought of being on call, help them see the benefits. Explain that emergency fees can really help with student loan payments, and regale the newbie with a few war stories that offered fantastic experiences when you were coming up through the ranks of the profession. I often tell associate candidates that if they don't see emergencies early in their careers, they probably won't ever see any. And that makes teaching the next generation of associates about emergency medicine difficult to impossible.

Associates: Learn the art of mutual backscratching

The owner of Rick's Café spent a lot of money to make the restaurant a place where I could live out my Casablanca fantasy. And in return, I spent a lot of dough on dinner, more drinks than I ever planned to drink and tips for the piano player, who was kind enough to play "As Time Goes By" no less than three times. The owner and I ended the night without disappointment. When a veterinary contract is signed, both parties should feel the same.

If you know in advance there are certain items in the proposed contract you must have in order to accept the job, ease your potential boss into the conversation. In doing so, you may find there are things you can give up in order to secure what you really need.

For example, if your potential boss isn't offering the benefits you want, don't miss the forest for the trees. Give a little to get a little. A client of mine recently waived the gym membership and moving expenses he was offered in exchange for getting his new boss to give him a better health insurance policy. When the deal was closed, both were happy.

So from this month's column, take home two vitally important things: First, approach contract negotiations with style and flexibility (or, more importantly, the appearance of flexibility). Second, if you are looking for some of the best preserved Roman ruins on the planet, be sure to visit Morocco (and don't miss Rick's). dvm360

Dr. Christopher Allen is president of Associates in Veterinary Law PC, which provides legal and consulting services to veterinarians. Call (607) 754-1510 or e-mail info@veterinarylaw.com.

SERGEY GORYACHEV/SHUTTERSTOCK.COM

>>> Three different colors of brick can be found on the exterior of Veterinary Village Clinic of Hamburg. "It sounds like it would be busy but it really works," says hospital owner Andrew Reyda, DVM. Curved glass windows complement the hospital's brick facade. Two overhangs, made of an opaque plastic-type polymer, give the building a finished look. | Photo courtesy of Tim Murphy, Foto Imagery

PARDON OUR MESS— veterinary team at work

No closed-for-construction days here. Find out how Village Veterinary Clinic of Hamburg continued business as usual while building their dream clinic next door. *By Ashley Griffin*

When opportunity called, Andrew Reyda, DVM, didn't hesitate.

"Our neighbor told us she was moving and asked if we wanted to buy her property," hospital owner Reyda says. "We did, and it was actually that quick and simple."

Just like that, his team started plans to build the new and improved Village Veterinary Clinic of Hamburg in Hamburg, New York. And then, just like that, they were named a 2017 Veterinary Economics Hospital Design Competition Merit Award Winner—after years of hard work, of course.

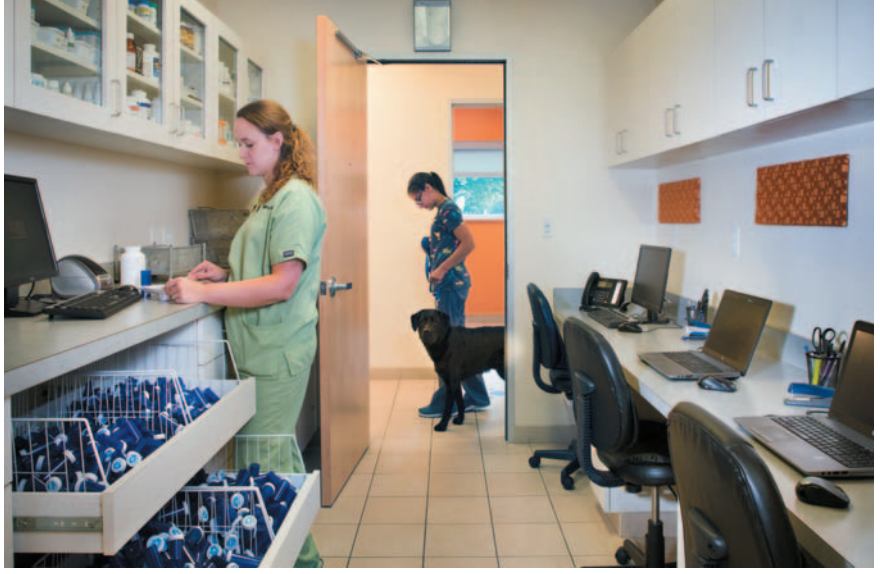
Here are three ways Reyda and his team were able to make the transition look easy ...

Village Veterinary Clinic of Hamburg by the numbers

Owner: Dr. Andrew M. Reyda
Number of doctors: 7 full-time, 1 part-time
Exam rooms: 6
Total cost: $2,668,353
Building cost: $1,970,871 (building only; excludes land purchase, landscaping, parking lot, etc.)
Cost per square foot: $220
Square footage: 8,956
Structure type: New freestanding
Architect: Mark Hafen, formerly of Animal Arts
Secondary architect: James R. Bammel, Bammel Architects
Photographer: Tim Murphy, Foto Imagery

PHOTOS COURTESY /OF TIM MURPHY, FOTO IMAGERY

>>> This play area for boarded dogs is more like a dog's dream playground, complete with slides, stairs and tunnels galore. The indoor/outdoor boarding areas are separated by a garage door that's open whenever New York's weather allows. And now, thanks to a team suggestion, the play area sits on artificial turf. "The daycare/boarding team asked if anything could be done about the sod where the dogs play, as it gets real muddy and messy with the littlest of precipitation," Reyda says. "We replaced it with artificial turf, and our daycare/boarding dogs are just as tired, but much less muddy."



>>> Putting open cabinets as well as a space for medical charting in the pharmacy speed up efficiency in the hospital. "We paired pharmacy with charting, which allows for conversation between the prescribing doctor and the technician who's filling the medication," Reyda says. "This proximity allows for last-minute client instructions to be passed along as well."

1. Continue business as usual

"As a veterinarian, I'm inherently afraid of 'business decisions' and wanted to continue our daily operations without any closed-for-construction days," Reyda says.

How'd the team manage this open-clinic policy? By building the new 8,956-square-foot clinic six feet away from the existing building. Once the new hospital was operational, they razed the old building to make room for the new clinic's entryway and curbside parking.

"Clients could see the difference in structures and what services we would be offering—boarding, daycare, physical therapy)," Reyda says. "That made any temporary inconvenience manageable."

Get inspired at the Hospital Design Conference

Attend the 2017 Veterinary Economics Hospital Design Conference in Kansas City, Missouri, August 23 to 25. Gather ideas, learn from the profession's most noted veterinary design experts, and compare your options for design, construction, equipment, financing and more with our exclusive hospital design exhibit hall. Head over to **thecvc.com/hd** for more information and to register.

Plus, representatives from both of this year's Hospitals of the Year will be on hand to share their secrets.

>>> Multiple skylights bring the outside in year round—even when New York is buried under 70 inches of snow. The treatment area is surrounded by glass, which ensures easy lines of sight throughout the space. The wet tables make messy cases tolerable and a central vacuum makes cleanup a breeze.

2. Design with the weather in mind

Green grass, colorful leaves, significant snowfall, flowers blooming—Hamburg, New York, experiences it all. Which is why the team wanted to design with the seasons in mind. Highlights include:

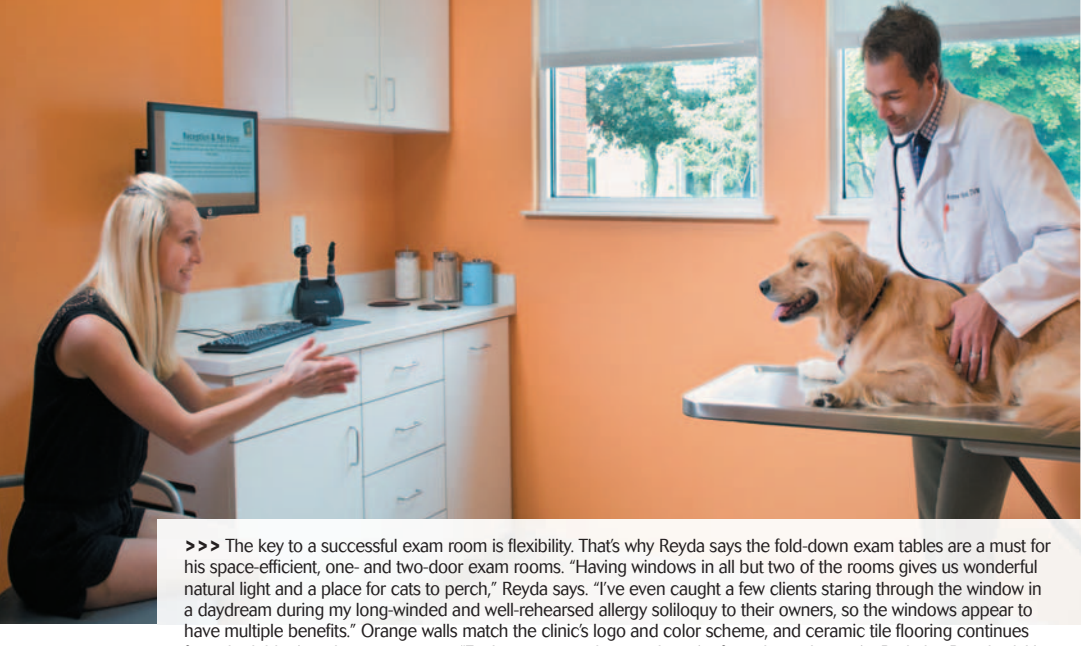
- Skylights in the treatment and boarding areas
- Indoor/outdoor rehab and dog play areas, with garage doors separating the spaces
- Large, frosted storefront windows in the special-procedures area and surgery
- Large windows with perches in cat boarding
- Windows in dog boarding suites
- An outdoor deck off the staff break room.

Reyda wanted to bring the outdoors in as much as possible. Except for the snow—that can stay outside. (The city got 70-plus inches of snow his first winter in the new building.)

"We did plan our parking to accommodate massive snow piles, because we lose a number of parking spots during the winter," Reyda says. "Shoveling and snow blowing our walkways was also accounted for in the design process."

>>> This is no ordinary break room—this is a break room with a view! Located on the second floor of the hospital, the break room opens up to an outdoor space. "It allows the team to hold meetings outside, enjoy a meal in the fresh air or just get away and absorb some vitamin D," Reyda says. "The deck gets a great deal more use than I ever anticipated."

PHOTO COURTESY /OF TIM MURPHY, FOTO IMAGERY



>>> The key to a successful exam room is flexibility. That's why Reyda says the fold-down exam tables are a must for his space-efficient, one- and two-door exam rooms. "Having windows in all but two of the rooms gives us wonderful natural light and a place for cats to perch," Reyda says. "I've even caught a few clients staring through the window in a daydream during my long-winded and well-rehearsed allergy soliloquy to their owners, so the windows appear to have multiple benefits." Orange walls match the clinic's logo and color scheme, and ceramic tile flooring continues from the lobby into the exam rooms. "Each exam room has a color print from the author-artist Berkeley Breathed. He wrote a children's book, *Flawed Dogs*, and we read it to our two sons when they were little," Reyda says. "The prints are his renderings of adoptable shelter dogs. They are colorful, thoughtful and funny and a good complement to our design and professional attitude here." Clients enjoy spotting these prints throughout the hospital.

>>> The open ceiling with exposed ducts as well as the steel and glass windows create contrast in the colorful lobby. When it came to coloring the new clinic, Reyda says his wife, Laura, and their interior designer, Mark Taylor, led the way. "We wanted color but not, as Mark put it, to have the place look like 'a circus big top,'" Reyda says. "Orange has been in our logo from day one, and it's a color we relied on throughout the hospital." A mix of orange bench seating and chairs gives clients flexible seating options while they wait in either the dog or cat waiting areas.

3. Color your clinic happy

When it came to coloring the new veterinary clinic, Reyda says his wife, Laura, and their interior designer, Mark Taylor, led the way.

"We wanted color but not, as Mark [our interior designer] put it, to have the place look like 'a circus big top,'" Reyda says. "Orange has been in our logo from day one, and it's a color we relied on throughout the hospital."

He says they wanted the new hospital to look modern, but not trendy and not out of place in the idyllic, village-like neighborhood. **dvm360**

Ashley Griffin is a freelance writer based in Kansas City and a former content specialist for dvm360.

Want more Veterinary Economics Hospital Design Competition content?

Go to **dvm360.com/2017competition** for a full list of winners of this year's competition and a schedule of when to keep an eye out for them to be featured in print and on dvm360.com.

Go to **dvm360.com/peopleschoice** for the 2017 People's Choice Award competition and images of all 22 of this year's entrants.

Last but not least, keep your eyes open for the 2017 Hospital Design Supplement arriving in June with your issue of dvm360 magazine for even more great design content. **dvm360**

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MERIAL

REFERENCES: 1. Pollmeier M, Toulemonde C, Fleishman C, Hanson PD. Clinical evaluation of firocoxib and carprofen for the treatment of dogs with osteoarthritis. *Vet Rec.* 2006;159(17):547-551. **2.** Data on file at Merial.

Please see brief summary on page 48

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Take a (permanent) break from brachycephalic breed depictions


NEWS | Associations

AVMA delegates unanimously approve responsible breeding policy

Veterinarians seek to reduce the prevalence of inherited disorders in companion animals.

In January, the American Veterinary Medical Association (AVMA) House of Delegates (HOD) unanimously approved a new policy on inherited disorders and the responsible breeding of companion animals, according to an AVMA release.

The AVMA Animal Welfare Committee, an 18-member group of representatives from various veterinary organizations, drafted the policy, which was amended by the delegates before reaching its final approved form. It reads:

To maximize the health and welfare of companion animals, the AVMA supports research to gain[illegible] and inherited disorders to better educate the profession and breeders on identifying and minimizing inherited disorders in companion animal breeding programs. To assist with this, the AVMA encourages veterinarians to pursue continuing education in the emerging area of genetic disease in companion animals. The AVMA also encourages veterinarians to educate breeders, companion animal owners, and the public on the responsibilities involved with breeding and selecting companion animals.

The policy intentionally uses the phrase 'companion animals' as the release states. According to a January 2016 article from the Journal of the American Veterinary Medical Association, both rabbits and cats are commonly bred to have traits that negatively impact their health.

The AVMA states that the "purpose of this policy is to support responsible breeding practices that reduce or eliminate the health and welfare concerns associated with inherited conditions, not to condemn or stigmatize specific breeds." This points to why the original draft (included in the JAVMA article) was amended. It read:

The AVMA supports the responsible breeding of companion animals such that only animals without deleterious [illegible] inherited disorders are selected for breeding. Companion animals exhibiting inherited characteristics that negatively affect the animal's health and welfare should not be bred, as those characteristics and related problems are likely to be passed on to their progeny. This would include inherited conditions such as brachycephalic syndrome, some joint diseases, bone deformations (e.g., radial hypoplasia "bowly cats"), comedones, heart and eye conditions, or poor temperament (e.g., Sprengerrage syndrome). The AVMA encourages veterinarians to educate breeders, pet owners and the public on the responsibilities involved with breeding and selecting pets to ensure that they are not contributing to poor welfare issues.

According to the AVMA, the newly enacted policy "is consistent with existing policies or guidance provided by the American Animal Hospital Association and the Canadian Veterinary Medical Association."

The policy intentionally uses the phrase 'companion animals' as the issue extends beyond dogs and cats, according to an AVMA release.

I'm proud to see that the AVMA has followed the lead of the British Veterinary Association in issuing a statement supporting "responsible breeding" of companion animals (see "AVMA delegates unanimously approve responsible breeding policy" in the March issue of dvm360). Typical of the AVMA, the statement is couched in language calculated to be inoffensive, but we veterinarians know that the point of the statement is to condemn the deliberate breeding of animals that are so deformed that their anatomy harms their health, well-being and quality of life.

Some of us have spent decades as voices crying in the wilderness, made to feel like fringe-element fanatics (even by other veterinarians!) because we don't see brachycephalic dogs or cats as "cute" but instead as the grotesque distortions that they are—innocent lives trapped in deformed bodies, suffering from health problems for life due to human whim and vanity. Anyone deliberately breeding deformed children and calling them "cute" would be decried as a monster. The call for breed anatomy reform is long overdue.

The AVMA has asked veterinarians to join in "educating breeders, companion animal owners and the public." In that spirit, I wish to point out to you that I count eight separate headers and ads in the latest issue of the March 2017 issue of dvm360 magazine that are accompanied by photos of brachycephalic breeds. These are your own ads for your own services and don't include additional ads by vendors, many of which also use photos of brachycephalic breeds.

I know that your layout editors choose their photos from a collection supplied by a commercial photographer and that their primary concern is with making dvm360 magazine attractive as well as informative. However, in the spirit of the AVMA's call to action, I would strongly urge your publication to keep it in mind as you choose your ads, your illustrations and your photos.

We humans are powerfully persuaded by visuals. What we see, we believe. Now that our national association has publicly acknowledged that these breeds need reformed standards and more normal anatomy, please do all you can to stop using their images in your ads and articles. Glamour photos of extreme brachycephalic breeds reinforce the delusion that their appearance is "cute" or "normal" or even "desirable." To some of us, these images are painful and disgusting—as upsetting as if you were using photos of deformed children to sell products or services.

This is bad enough in the lay press. There is a special cognitive dissonance in opening a professional veterinary publication and reading on one page the AVMA call for breed standard reform and then seeing the rest of the pages lavishly illustrated with photos of the exact deformities we are supposed to be condemning. **dvm360**

Chari Wessel, DVM
San Diego, California

Editor's note: *We appreciate this reader's concern and have already become more sensitive on this issue, especially in light of new data showing even more medical problems than we imagined in brachycephalic breeds. We have discussed internally that if you take this line of thinking to its extreme conclusion, we would need to avoid photos of all purebreds since they all have congenital or hereditary conditions associated with them. But, of course, we acknowledge that certain breed-related problems are more prevalent and severe in certain breeds than in others. So we are working to reduce our use of brachycephalic breed images, unless the article is related to discussion of the breed in question.*

MEDICINE | Dentistry

The ABCs of dentistry: "I" is for informed consent

An in-depth look at what can go wrong during a dental procedure and how much to share with veterinary clients.

By Jan Bellows, DVM, DAVDC, DABVP, FAVD

My sister asked me to accompany her to a surgical consultation for an elective procedure. After the doctor finished reviewing the proposed surgery plan he said, "Now let's talk about what can go wrong," listing infection, dehiscence, suture reaction, scar formation and significant postoperative discomfort, which rarely occurs. He followed with, "Now what questions or concerns do you have?"

Why did he do that? To worry us? To talk her out of the procedure? Not at all. He wanted to properly inform us—and in some way to be brutally honest that things do not go perfectly every time. The informed discussion and my sister's consent was founded on her right to make health decisions based on explanation and understanding the risks and benefits of treatment and nontreatment. Immediately after the visit, I consciously incorporated "Now let's talk about what can go wrong …" during all client discussions on proposed surgeries or diagnostics that carry risk.

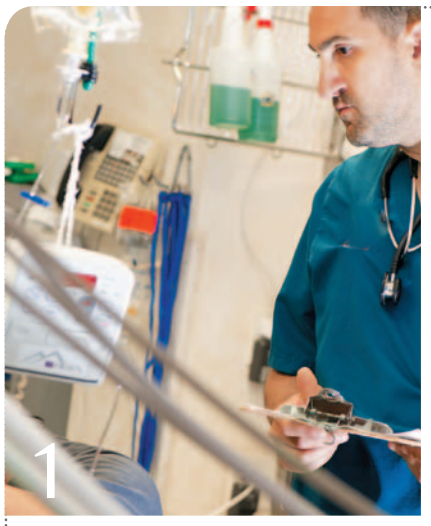
For a general physical examination, radiography, electrocardiography (ECG) and blood draws, implied consent is assumed. For diagnostics and treatment with risk or alternatives, we need to give our pet owners enough information for them to make informed diagnostic and therapeutic decisions. Blindly signing a consent form without reading and discussing content is not ethically adequate. Informed consent needs to be a communicative process, presented several times during the professional oral assessment, treatment and prevention (oral ATP) visit.

This informed discussion should include:

1. The nature of the procedure
2. Reasonable alternatives, if any
3. The relevant risks, benefits and uncertainties related to each alternative
4. Confirmation that the client understands the above
5. The acceptance of the decision and procedure by the client

Deciding how much "what can go wrong" information to give the pet owner can be challenging. Fortunately, adverse events rarely occur. For example, a dog or cat hardly ever loses its hearing—even temporarily—from acoustic nerve trauma caused by the ultrasonic scaler. Even though it does happen, it has never clinically occurred in one of my patients. But it could, so do I discuss it beforehand? No, because it is rare and not life-threatening. Compare this to adverse events that can occur secondary to general anesthesia. Even though these are also extremely rare, they can be devastating. For that reason, we discuss anesthesia informed consent with every case.

Examples of common informed consent topics to consider discussing relating to dental procedures



>>> Figure 1. A veterinarian dedicated to tailor anesthesia protocols, monitor effects and make anesthesia modifications during the procedure.

PHOTOS COURTESY OF DR. JAN BELLOWS

General anesthesia

Adverse anesthesia events including death
Probability: Extremely rare
Prevention:
1. Evaluate the patient beforehand with a physical examination, laboratory testing, ECG, ultrasonography and radiography, as indicated.
2. Choose an anesthetic protocol tailored to the patient.
3. Monitor vital signs during and after the procedure.
4. For compromised patients or intense clients, consider using a veterinary anesthesiologist or referring to a facility with one (Figure 1).

Coughing
Probability: Moderate to high
Prevention:
1. Use sterilized, appropriately sized endotracheal tubes inflated to proper cuff pressure.
2. Avoid excessive head movement during the procedure.
3. Disconnect the endotracheal tube attachment from the anesthesia machine when the patient is moved from side to side.

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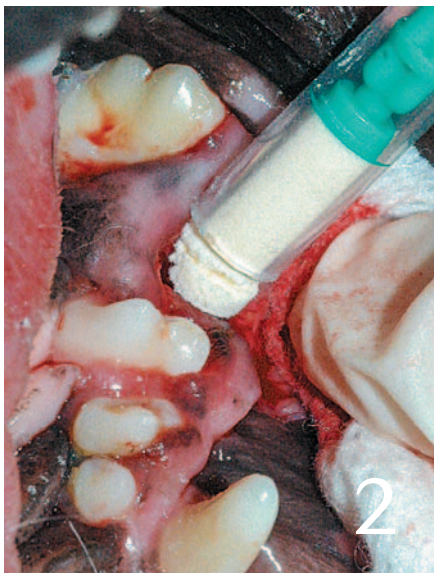
Tooth extractions

>>> Figure 2. Hemostatic powder applied to stop hemorrhage from a fourth premolar extraction site.



Excessive bleeding

Probability: Moderate with extractions

Prevention:

1. Appreciate vascular anatomy before any extraction.

2. Raise the patient's head and apply hemostatic powder to control excessive bleeding (Figure 2).

3. Consider referral in cases of persistent excessive bleeding at an extraction site with root fragments remaining.

Postoperative discomfort

Probability: Moderate

Prevention: Provide local and systemic anesthesia and analgesia before, during and after a procedure in which pain may be expected.

Jaw fracture

Probability: Extremely rare

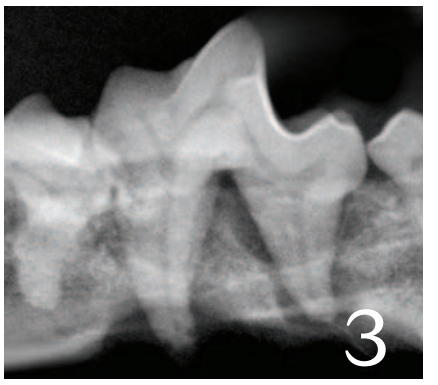
Prevention:

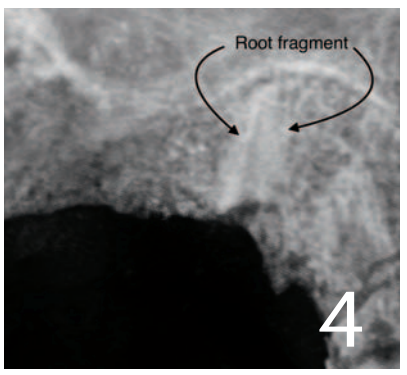
1. Obtain radiographs of all teeth and surrounding tissues before extractions.

2. Use your surgical expertise as well as patience, illumination and magnification, especially in cases of advanced periodontal disease extending to the mandibular ventral cortex.

3. Consider referral if you are not comfortable with the surgical extraction—or refuse to do the procedure if you feel that jaw fracture is a significant risk (Figure 3).

>>> Figure 3. A radiograph of a difficult extraction of the left mandibular first molar, potentially leading to jaw fracture.





>>> Figure 4. A root fragment remaining from an extraction of the maxillary fourth premolar.

Surgical site infection, dehiscence

Probability: Rare

Prevention:

1. Explain to the client that sometimes after surgery a dog or cat opens its mouth too far and sutures fail to hold tissues together. Usually the surgical site then heals by secondary intention.

2. Create a flap that will allow closure without tension.

3. Consider sending a patient home with a cone to decrease oral cavity self-trauma.

Remaining root fragments after surgical extraction

Probability: Rare to moderate

Prevention:

1. Obtain and examine intraoral radiographs on all teeth to be extracted before and after the procedure.

2. Refer tough cases if you are not comfortable, such as multirooted teeth and tooth resorption (Figure 4).

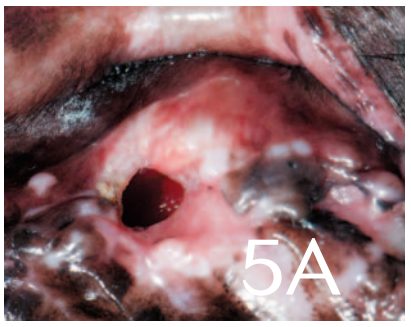
Anorexia

Probability: Moderate for one to two days

Prevention:

1. Provide pain relief as well as anti-inflammatory and appetite-stimulant medication.

2. In cases of full-mouth extractions in debilitated cats and other major oral surgical procedures, place a nasogastric or pharyngeal feeding tube (Figures 6A and 6B).

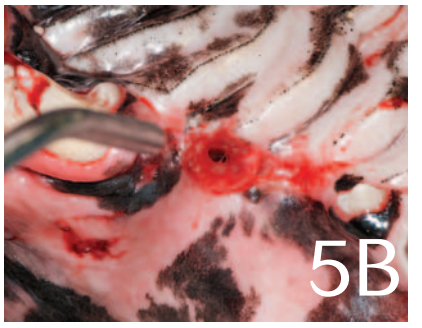


>>> Figure 5A. An oral nasal fistula.

Oronasal or oral antral fistula

Probability: Rare to moderate

Prevention: Prepare a gingival flap to facilitate closure without tension. Let the client know that if a fistula occurs and becomes clinically significant, surgical closure is advised (Figures 5A and 5B).



>>> Figure 5B. An oral antral fistula.

>>> Figure 7A. Tongue protrusion after surgery was performed to remove the rostral mandibles from the first molars forward in the patient pictured in Figure 3.

Tongue protrusion after multiple incisor or quadrant extractions

Probability: Moderate

Prevention: Let the client know that tongue protrusion has little to no effect other than cosmetic (Figures 7A and 7B).

>>> Figure 7B. A right-sided tongue protrusion after rostral mandibulectomy to remove an invasive oral melanoma.

>>> Figure 6A. A nasogastric feeding tube.

>>> Figure 6B. Pharyngostomy feeding tube placement.

ENVIRONMENTAL ALLERGIES

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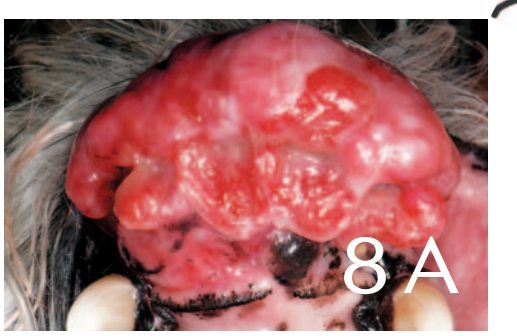
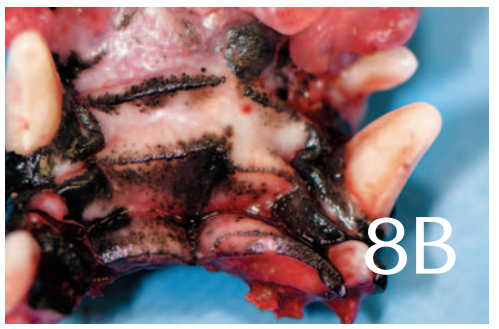
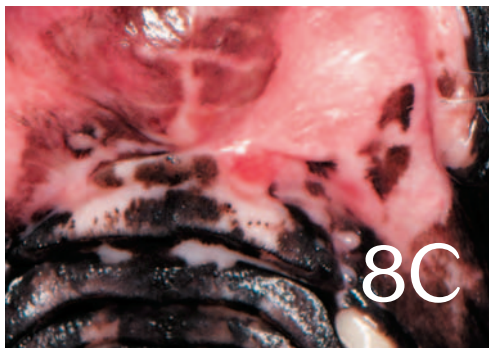
Oral mass removal



>>> Figure 8A. An oral mass involving the rostral maxilla.



>>> Figure 8B. Removal of the mass (osteosarcoma) with clean distal surgical margins only.



>>> Figure 8C. Three-month rostral regrowth of the tumor.

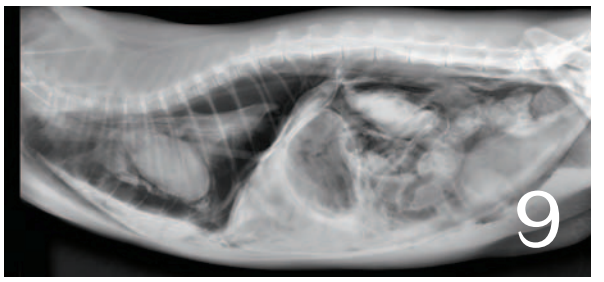
>>> Figure 8D. Five-month continued regrowth.

Dehiscence
Probability: Moderate
Prevention: Close without suture line tension.

Regrowth
Probability: Common with incomplete excision
Prevention:
1. Perform fine-needle aspiration cytology before surgical excision to help determine malignancy and plan surgical margins.
2. Perform computed tomography or cone beam computed tomography before surgery to plan surgery with clean margins (Figures 8A-8D).

Possibility of further oncologic treatment needed
Probability: Moderate in cases of malignancy
Prevention: Before surgery, mention to the client the probability of radiation therapy in those masses that are responsive.

General anesthesia



>>> Figure 9. Pneumomediastinum, pneumothorax, and pneumoperitoneum secondary to tracheal rupture.

Vision loss
Probability: Extremely rare
Usually attributed to anoxia or very low blood pressure during or immediately after the procedure.

Lameness
Probability: Rare
Older animals and those with disk disease or arthritis may become lame secondary to prolonged positional changes.

Trachea rupture, subcutaneous emphysema
Probability: Rare, primarily in older cats
To prevent this complication, be careful not to overinflate the endotracheal cuff, and disconnect the endotracheal tube every time the animal is rotated (Figure 9).

Ultrasonic scaling

Hearing loss
Probability: Extremely rare
To prevent this complication, avoid the "jack hammer" effect by using the side of the ultrasonic scaler vs. the tip to remove plaque and calculus, and only spend seconds on each tooth; if more time is needed come back after addressing other teeth.

Tooth discoloration secondary to pulpitis
Probability: Rare
To prevent this complication, avoid excessive heat transfer from the ultrasonic scaler by ensuring proper water spray, and only spend seconds on each tooth; if more time is needed come back after addressing other teeth.

So, how much information to share?

We should include a similar discussion as my sister's surgeon before dental procedures requiring general anesthesia. Veterinarians are held to reasonable community standards. What would a typical doctor disclose? Tell them what a typical client needs to know. It's just good practice and part of our practice acts. Of course there is a fine line between informing and scaring clients out of needed care. This is where the art of practice comes into play. Let your client know that these complications are for the most part extremely rare and you and your staff take every precaution to prevent them. Also convey the small risk is worth the reward of a pain-free functional mouth. dvm360

Extractions

Air embolism from the dental drill
Probability: Extremely rare
To prevent this complication, try to avoid entering the mandibular canal during the extraction process. An air embolus can be created by inadvertent injection of a mixture of air and water through the dental drill directly into the mandible entering the superior vena cava and right atrium.

Dr. Jan Bellows owns All Pets Dental in Weston, Florida. He is a diplomate of the American Veterinary Dental College and the American Board of Veterinary Practitioners. He can be reached at (954) 349-5800; email: dentalvet@aol.com.

A public health veterinarian's take on captive wildlife ownership

Dr. Jenifer Chatfield says it's all about responsibility—for pet owners of all stripes and scales.

That handsome specimen pictured above—that's a Gaboon viper, if you didn't already know. It comes up in this discussion, just so you have a visual. Said discussion is between our resident expert interviewer dvm360 business channel director Brendan Howard and public health veterinarian Jenifer Chatfield, DVM, DACZM. The topic: wild animals in captivity.

At a recent CVC, Howard got a chance to sit down and discuss all sorts of potentially venomous issues such as this one that come up in the arena of public health. The podcast interview (go to **dvm360.com/podcasts** to listen) began with Dr. Chatfield's firm declaration: "I'm American. And I believe you should get to do whatever you want to do as long as it doesn't bother anybody else and doesn't present an ongoing risk to the public health and safety."

What it comes down to for Dr. Chatfield—responsible ownership. "I think you should be allowed that freedom, if you do it responsibly. I think that is the critical issue, rather than 'You shouldn't get to own this, but you can own that.'"

In case your hackles are raising a bit (or maybe your fangs are starting to come out), here's a warning for us all from Dr. Chatfield: Be careful about casting stones of judgment before you condemn others for owning unusual animals. And definitely consider what is considered "routine" ownership practices for dogs and cats.

Hear more from this conversation in our podcast interview of Dr. Chatfield at **dvm360.com/podcasts**. dvm360

CASPIAN SUMMER/SHUTTERSTOCK.COM

>>> Chronic otitis: it's a ruff situation for everyone

The 'ugh's and 'why's of chronic otitis

Managing a one-time case of otitis is bad enough. Treating difficult cases? Exasperation! Don't worry, we've got your back. *By Meghan E. Burns, DVM*

How do we prevent otitis from recurring? At CVC Kansas City, James Noxon, DVM, DACVIM (SAIM), reviewed the best practices of ear treatment, focusing on *Pseudomonas* species infections.

- Make a proper diagnosis. This means performing a thorough ear examination, an otoscopic examination and key diagnostic tests. For example, according to Noxon, cytology is absolutely necessary to properly evaluate a patient with otitis.
- Remove obstructions such as wax and hair.
- Clean the ears before treating for effectiveness of topical therapy.
- Provide good client education.
- Follow good principles of therapy—proper product, at proper dosage, for proper frequency and proper duration.

Recurrence is usually due to a failure to figure out why the infection is there. Noxon says otitis is all about the "what" and the "why"—what is going on and why is it there. He says *Pseudomonas* species infections should be suspected when:

- Ears are extremely painful
- Mucopurulent discharge accumulates toward the outer part of the ear canal
- A single populace of rods is seen on cytology, especially gram-negative rods. Gram stains are recommended and very helpful if rods are seen on cytology.
- Tissue bleeds readily.

Ugh! That darn biofilm!

So why are *Pseudomonas* infections so hard to deal with? Noxon says the bacteria is a biofilm producer along with other species of bacteria such as *Staphylococcus* species. Biofilm is a gel-like matrix of proteins, containing sugary strands that can also be referred to as an "extracellular polymeric substance" (EPS). Bacteria live within the biofilm and nutrients are delivered via channels. Biofilm protects bacteria from antibiotics, antibodies and phagocytic cells. Noxon says that the advantages to bacteria from biofilm are:

- Structural stability
- Adherence to biotic and abiotic substances
- Resistance to the host's immune system

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Biofilm is a thin, invisible layer. Penetration of the biofilm doesn't happen, according to Noxon. However, if it did, bacteria could respond due to added time since they are exposed to the antibiotic agent more slowly. You can't kill biofilm, but you can remove it with regular ear cleaning and removal of obstructions, says Noxon.

About that ear cleaning ...

If you have a patient with a *Pseudomonas* species infection, Noxon says to do a deep ear cleaning and flush under sedation, regardless of whether you can see the eardrum. He prefers to do the cleaning in the office as owners can overclean and break down tight junctions in the skin as a result. Noxon cleans ears thoroughly in his office, then repeats the cleaning at the patient's first recheck (two to four weeks). He has the owners clean the ears at home only if the ear is rapidly filling with ceruminous debris.

Noxon says commercial products are the most effective—products with gentamicin, enrofloxacin and polymyxin B sulfates. Polymyxin B is a great antibiotic for *Pseudomonas* species, and ear cleaning is important to allow the antibiotics to work more effectively, since many have reduced activity in the presence of pus. Noxon cautions againnst jumping on the new drug bandwagon with a perceived resistance case. He says to reexamine the diagnosis and cleaning procedure.

Noxon recommends performing a culture at four weeks to determine if there is indeed a recurrence and warns that *Pseudomonas* species can be difficult to find on cytology. He also recommends a maintenance plan with some antiseptic or cleaner with antimicrobial activity once or twice a week to keep the ear quiet. **dvm360**

Dr. Meghan Burns owns Connect Veterinary Consulting. Her expertise includes marketing, product and business development, and medical writing.

An overview of treating a *Pseudomonas* species infection

>>Deep clean the ears.

>>Administer an appropriate antiseptic and antibiotic.

>>Monitor the infection by cytology and culture.

>>Treat for two weeks after negative cytology.

>>Administer concurrent glucocorticoids—topical and oral. After you kill *Pseudomonas* species, since the ears were so moist, Dr. Noxon says it is common to get a secondary *Staphylococcus* species infection or more commonly *Malassezia* species yeast. So he prefers to treat with a commercial product that has activity for *Malassezia*.

EQUINE | Surgery STAT

How to perform alcohol-facilitated ankylosis of the lower hock joints in horses

This technique can be an effective way to alleviate the pain of osteoarthritis and resolve lameness in your equine patients.

By Dane M. Tatarniuk, DVM, MS, DACVS-LA, American College of Veterinary Surgeons

Osteoarthritis in equine joints can be a debilitating disease that becomes refractory to traditional medical management. In select low-motion joints, intra-articular injection of ethyl alcohol can be an effective and a practical method of resolving lameness by promoting natural joint fusion (ankylosis). Intra-articular administration of alcohol results in marked chondrocyte death.[1] It is also hypothesized to cause neurolysis within the synovium and joint capsule, resulting in a temporary analgesic effect.[1] Together, these physiological insults accelerate the degenerative process to facilitate the bony union of adjacent articular surfaces, leading to overall joint stability and increased patient comfort.

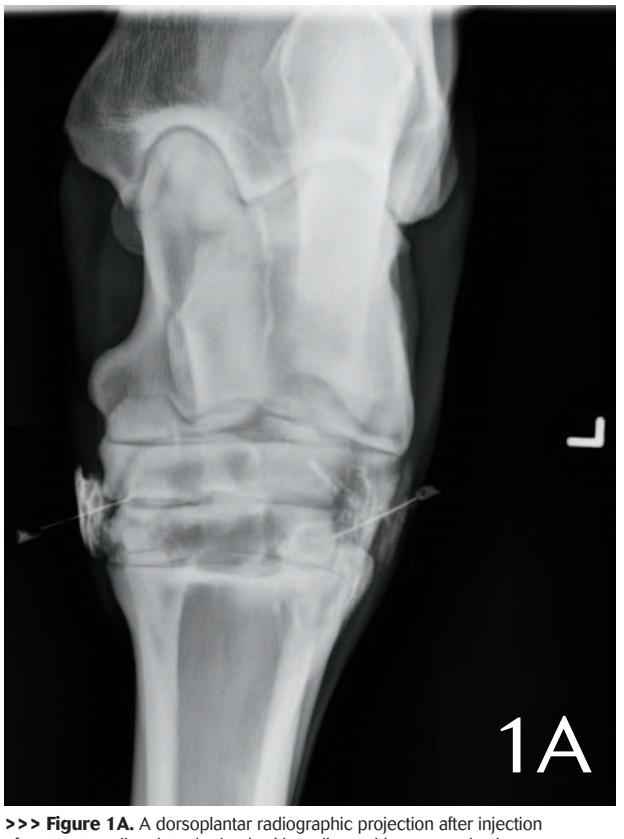
Alcohol-facilitated ankylosis is most commonly and effectively performed in the distal intertarsal (DIT) and tarsometatarsal (TMT) joints. The technique can also be helpful in the facilitated ankylosis of the proximal interphalangeal joint when other surgical interventions, such as pastern arthrodesis, are not an option financially.

Supplies needed

> Sterile, injectable radiopaque contrast material
> 75.5% grain-based alcohol (e.g. Everclear 151—Luxco)
> 1.5-in, 20-ga needle (for TMT) or 1-in, 22-ga needle (for DIT)
> 3-ml syringes
> PRN injection port cap
>Digital or computed radiography capabilities

Procedure

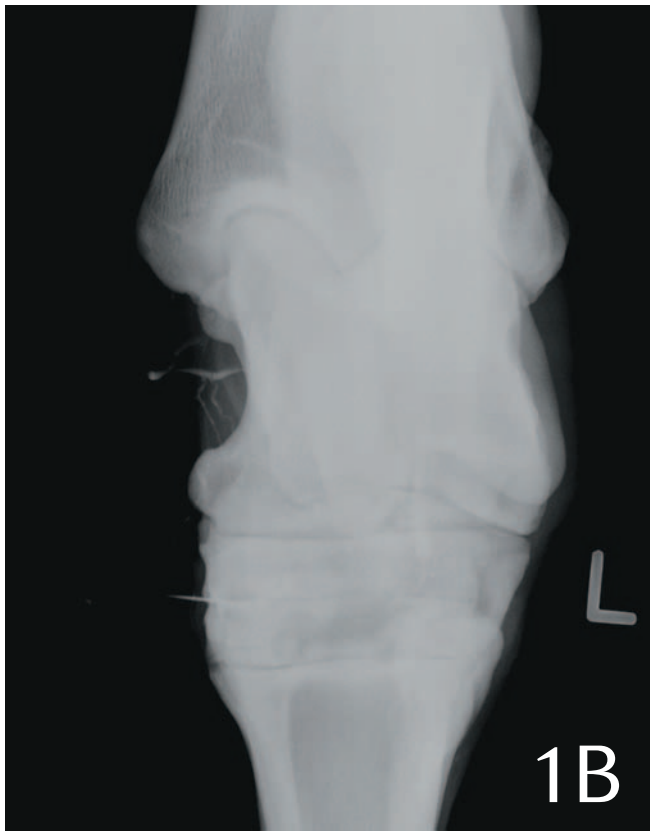
Sedate the horse. A combination of detomidine (0.01 mg/kg) and butorphanol (0.01 mg/kg) given intravenously works well. Adhere to strict aseptic preparation and principles of sterility during injection as for any intra-articular injection. An important step when performing this technique is to use contrast material to ascertain that the needle is correctly located intra-articularly within the lower hock joints and that no communication with the proximal hock joints—the proximal intertarsal (PIT) and tibiotarsal (TT)—is present. Previous reports describe 70 percent communication between the TMT and DIT joints.[2] More important, about 4 percent of the distal TMT/DIT joints communicate with the proximal PIT/TT joints.[3]



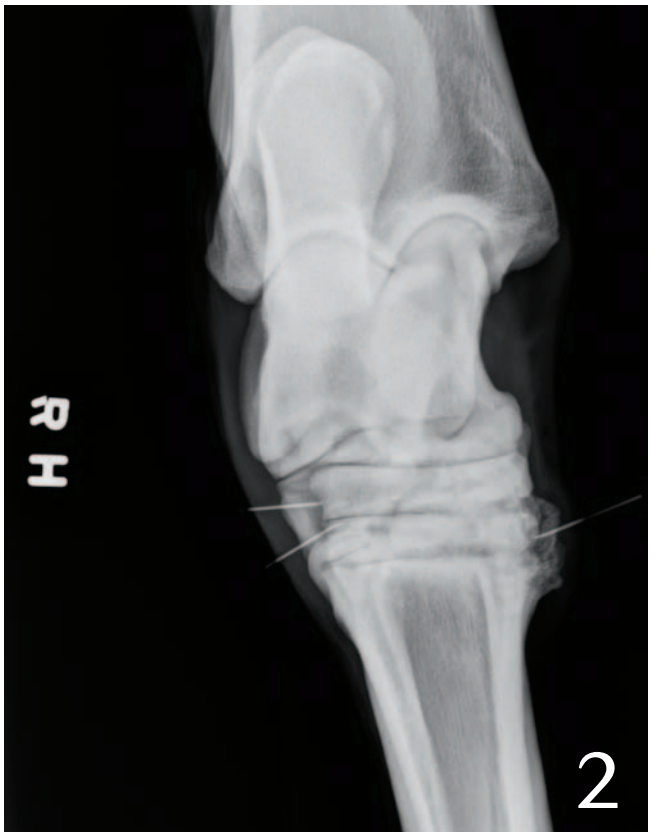
>>> Figure 1A. A dorsoplantar radiographic projection after injection of contrast medium into the hocks. No radiographic communication between the DIT/TMT and PIT/TT is noted. As such, it was determined to be safe to inject the alcohol.

Tarsometatarsal joint. Palpate the head of the lateral splint bone, and insert a 1.5-in, 20-ga needle in a dorsomedial and distal orientation. Inject 3 ml of sterile radiopaque contrast material into the TMT joint first. Immediately after injection, and prior to obtaining radiographs, attach the PRN cap to the needle hub to prevent leakage of contrast and promote sterility. Obtain standard radiographic views and evaluate them for the presence of contrast medium in the PIT or TT joints (Figures 1A & 1B). If no proximal communication is seen, remove the PRN cap. Although not necessary, an empty syringe can be attached at this point to aspirate any excess contrast or synovial fluid present. Then, administer 3 ml of alcohol intra-articularly and remove the needle.

FIGURE 1A COURTESY OF DANE M. TATARNIUK, DVM, MS, DACVS-LA



>>> Figure 1B. A dorsoplantar radiographic projection after injection of contrast medium into the hocks. Communication between the DIT and PIT/TT is present, as evident by contrast migrating proximally in the medial aspect of the TT joint. As such, it was determined not safe to inject the alcohol.



>>> Figure 2. A dorsoplantar radiographic projection of a tarsus that was previously injected with alcohol intra-articularly eight months prior. Note the prominent callus present along the medial aspect of the TMT and DIT joints secondary to alcohol-augmented arthritic degeneration. In this case, ankylosis has progressed reasonably well along the medial aspect of the lower joints. However, a second round of alcohol is being administered to help promote complete fusion desired along the lateral aspect of the joint.

Distal intertarsal joint. Contrast evaluation in the DIT should be repeated as described for the TMT joint (using 3 ml), regardless of the appearance of contrast arthrography after TMT injection (Figures 1A & 1B). The intersection between the fused first and second tarsal bone, the third tarsal bone and the proximally located central tarsal bone creates a palpable gap into which a 1-in, 22-ga needle can be inserted immediately distal to the central tarsal bone directly perpendicular to the skin in a medial to lateral orientation. If contrast arthrography continues to appear confined to only the DIT and/or TMT, then administer 3 ml of alcohol intra-articularly.

Proper technique requires the positive contrast radiographic assessment and subsequent alcohol injection in both the TMT and DIT independently. After the injection, horses receive a standard dose of phenylbutazone (2.2 mg/kg orally or intravenously). Some authors describe placing a hock bandage,[4] but in my experience this is not necessary.

Cautions and complications

In one study, mild swelling and localized cellulitis at the site of injection was reported in 12.5 percent of cases.[2] It has been suggested that difficulty with needle placement (more than two or three attempts to enter the joint) can create multiple leakage routes for alcohol or contrast medium to inflame the soft tissues.[2] Depending on the volume administered extra-articularly, marked soft tissue fibrosis and undesirable periosteal reaction can develop, potentially worsening the lameness. Specific to the treatment of lower hocks, if contrast arthrography is omitted or incorrectly interpreted, injected alcohol may migrate through the PIT and into the TT joint. Since the TT joint is involved in a high degree of flexion and extension during gait movement, onset of iatrogenic arthritis secondary to alcohol diffusion will have crippling consequences.

Anticipated outcome

Retrospective studies evaluating alcohol-facilitated ankylosis have recently emerged. One study reported a significant improvement in lameness in all clinical horses evaluated after alcohol injection into the TMT and DIT joints (n = 21).[4] Lameness improvement was also supported by objective force-plate analysis in half of these patients. Another distal hock joint retrospective documented an overall improvement in 63 percent of 35 treated limbs when the horses were re-evaluated subjectively six to nine months after injection.[2] Alcohol-facilitated ankylosis of the proximal interphalangeal joint (pastern) has been successfully performed and is a viable option when other surgical interventions, such as pastern arthrodesis, are not an option.

Conclusion

Alcohol-facilitated ankylosis of the DIT and TMT joints can be performed safely after contrast radiography using readily available equipment and standard hock injection techniques. Multiple injections may be necessary (Figure 2), and the technique is generally considered safe as long as the absence of communication with the PIT and TT joints is confirmed.

Consult a board-certified equine surgeon prior to the procedure as more technical surgical interventions including thermal- (laser) or mechanical- (drilling with or without plating) facilitated ankylosis techniques may be more appropriate in select cases. dvm360

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Dr. Dane Tatarniuk is an ACVS board-certified equine surgeon at Iowa State University in Ames, Iowa. He has a clinical and research interest in equine sports medicine, orthopedics, regenerative therapy and musculoskeletal traumatology. In his spare time, he enjoys camping and fishing, spending time with his wife, and helping his wife raise and show western pleasure quarter horses. Surgery STAT is a collaborative column between the American College of Veterinary Surgeons (ACVS) and dvm360 magazine. To locate a diplomate, visit ACVS's online directory, which includes practice setting, species emphasis and research interests, at acvs.org.

FIGURE 1B COURTESY OF CHRIS D. BELL, DVM, DACVS, ELDERS EQUINE CLINIC, WINNIPEG, MANITOBA, CANADA; FIGURE 2 COURTESY OF DANE M. TATARNIUK, DVM, MS, DACVS-LA

Save California's injured racehorses

Veterinarians are helping a California nonprofit put retired racehorses out to pasture—or back to work in new "leisure" careers. *By Ed Kane, PhD*

On a pleasant California day in April 2016, Songbird—Fox Hill Farms' undefeated filly champion—won the Santa Anita Oaks. Thousands of fans were on hand in Arcadia, California, that day to cheer her on.

The same day, the owners of Fox Hill Farms made a donation to the California Retirement Management Account (CARMA), a nonprofit that funds the rehabilitation, retraining or retirement of thoroughbreds that have raced in California. Veterinarians are a big part of that, offering discount or pro bono surgeries to make a difference in many of the recuperating horses' lives.

>>>A booth at Santa Anita Park in California selling Songbird merchandise to support the California Retirement Management Account (CARMA).

"The Porters, owners of Songbird, graciously reached out to us to help our charity," says Lucinda Mandella, CARMA's executive director. "They were interested in doing something tied to the filly, especially because of her incredible popularity among racing fans."

Rick Porter donated the racing silks that jockey Mike Smith wore in her previous four starts—all signed by Porter, Smith and trainer Jerry Hollendorfer. In addition to the silks, Songbird T-shirts and hats were specially printed for sale by the nonprofit.

What does CARMA do?

Dreamed up by the Thoroughbred Owners of California, the nonprofit's mission is to match racehorses with the right living scenario, "so they get to the right kind of place to live out their days," Mandella says.

That mission is difficult if the horses disappear temporarily—or permanently—from their racing careers. "Horses from the racetrack sometimes had a difficult time once they got out into the 'wider world,'" Mandella says. "[It was hard] to track them and maintain their safety and security."

Its supporters hope CARMA will provide an alternative for thoroughbred owners and trainers who can't find colleagues or friends to take in the horses and end up selling them away from the world of racehorse owners.

The 501(c)3 nonprofit gave out its first grants in 2008, funded then and now by a percentage of purse money donated by thoroughbred racehorse owners. A full 100 percent goes directly to care of horses in veterinary fees, feed, board and more, according to Mandella.

There are some basic requirements for participation. For instance, racehorse owners need to participate in the purse contribution program and make sure colts have been gelded prior to joining the program. They also need to make an effort to retire the horse on their own.

"We're here as a resource, but we don't see ourselves as the only retirement option," Mandella says. "But most horses meet the criteria and are accepted into the program."

In California, the Stronach Group, which bills itself as the world's leading horse racetrack operators, is currently matching contributions that horse owners make through the purse deduction program.

How does CARMA work?

Once a horse is accepted into the program, veterinarians perform a diagnostic assessment based on physical condition, retiring injury and potential time to recover. During recovery, the horse's temperament is evaluated.

"After that initial assessment, we do a 'layup,' for 30 to 60 days or sometimes longer," Mandella says. "During that time, we take photos of the horse, do a write-up and present each horse to our aftercare partners."

The favored "local triage" center is Winner's Circle Ranch in Bradbury, California, owned by Don Shields, DVM, who has more than 20 years of racetrack veterinary experience. Shields gives CARMA a discounted board rate as well as discounted or pro bono diagnostic and evaluation work that can include ultrasound, radiography and surgery (if necessary) as well as injections of platelet-rich plasma or interleukin-1 receptor

IMAGES COURTESY OF ED KANE, PHD

antagonist protein. He then advises the CARMA team members of the horse's capabilities and best options for a future "leisure" career; for example, trail, dressage or pasture. Then the report goes to CARMA's aftercare partners.

Where do the horses go?

"We usually get dozens of emails [from aftercare partners and homes] in response" to CARMA reports, Mandella says. These are organizations that specialize in permanent retirement—farms that usually have larger herds that live outside year-round. These horses are handled but not ridden.

It's a different situation when a horse just needs a temporary respite, according to Mandella: "If a trainer says, 'I've got a horse with a bowed tendon that needs six months off,' that works out too. Within a year the horse may be healed and rehomed, and someone else will pay for its upkeep."

Sometimes a low-cost or no-cost procedure means a completely different result for the nonprofit, the former horse owner and the racehorse, Mandella says.

"Horses benefit from surgeries—at cost or donated—where previously the owners or trainers had elected not to do so, to just retire the horse," Mandella says. "From our perspective, putting a screw into a sesamoid can make the difference [between] a horse being pasture-sound only and still being able to be used as a trail horse. We'd like to keep as few as possible with our permanent retirement homes, because we need them to continue to take horses. And the only way they can do that is to send other horses to interested owners."

>>> Author with Songbird

How is CARMA growing?

The biggest change in CARMA's work has been better and more frequent rehabilitative surgery, Mandella says.

The program averages about 10 to 12 horses at any one time, and in any given year it has helped as many as 30 horses.

"We've had surgeons discount and donate their time to make it more affordable to begin to do these minor surgeries to help heal and rehabilitate horses," she says. "We've made our goal to make these horses as adoptable as possible."

The program has branched out to more medical facilities, more ranches and more boarding properties. The latter come into play when a horse doesn't necessarily need care but requires time in a roomy stall or out in the pasture with a "buddy"—time for that bowed tendon or other injury to heal. The program averages about 10 to 12 horses at any one time, and in any given year it has helped as many as 30 horses. The extra time, Mandella says, is the saving grace.

"That number is not a great number in terms of turnover, but we're giving these horses sufficient time to recover from their injury," she says. "If I can give these horses a little more time initially, they have a better shot of being placed."

And once CARMA adopts one out, the program is ready to take another horse. **dvm360**

Ed Kane, PhD, is a researcher and consultant in animal nutrition. He is an author and editor on nutrition, physiology and veterinary medicine with a background in horses, pets and livestock. Kane is based in Seattle.

Equine ophthalmology for kids

Derrick the Jumping Horse Has Eye Surgery is a children's book with its hooves planted in reality and a desire to encourage readers to discover their true purpose.

In 2014, Terri Herrera imported a Dutch warmblood gelding named Derrick from the Netherlands with hopes of training him to compete as a hunter. According to an article in the UC Davis School of Veterinary Medicine Winter 2017 newsletter, these hopes were interrupted when, at age 7, Derrick developed a cataract in his right eye.

Herrera's veterinarian in Southern California encouraged her to make the eight-hour drive to the UC Davis veterinary hospital where she met Mary Lassaline, DVM, PhD, MA, DACVO—a connection that would later save Derrick's life.

Lassaline inserted cyclosporine implants in both of Derrick's eyes to ease his uveitis flare-ups. Despite the impairment in his right eye, Derrick was able to participate in several competitions and even placed second in the United States Hunter Jumper Association National Hunter Derby at the Verdugo Hills Spring Fling, says his owner.

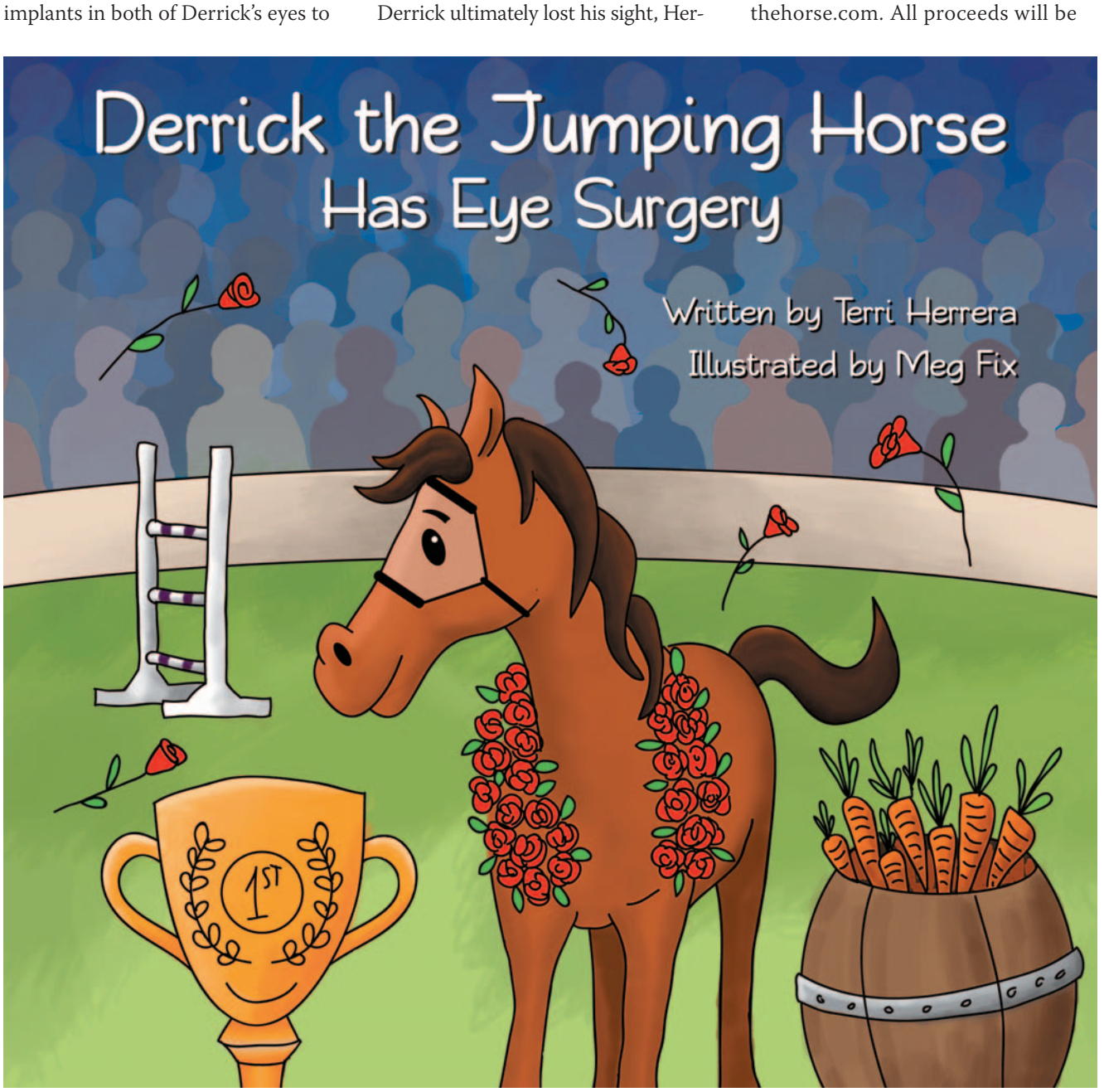
It would be his last show. Derrick's vision continued to worsen, and with a cataract in his left eye and blindness looming, Herrera decided to euthanize the impaired horse to spare him from hurting himself or others.

Lassaline changed Herrera's mind, however, and she and her team performed cataract surgery on Derrick and cared for him for 40 days. Though Derrick ultimately lost his sight, Herrera credits the UC Davis team with saving her horse—a horse that now walks and trots under saddle.

Herrera's experience moved her to write a children's book about Derrick's experience titled *Derrick the Jumping Horse Has Eye Surgery*.

"I hope Derrick's story and his new life's purpose will encourage others," Herrera writes on the book's website. "I thought Derrick's purpose was to be a champion hunter. Now I know the truth: Derrick's purpose was—and still is—to inspire others to discover their true purpose, which oftentimes is not what it initially seems."

The books are $9.95 and can be purchased online at www.derrick-thehorse.com. All proceeds will be given to the UC Davis Equine Ophthalmology Department and to the National Eye Institute for pediatric research. dvm360



>>> All proceeds from the book will be donated to the UC Davis Equine Ophthalmology Department and to the National Eye Institute.

PHOTO COURTESY OF TERRI HERRERA

>>> Celeste Kelly, one of the plaintiffs.

Arizona animal massage therapists win lawsuit against veterinary board

Legal battle ends with a decision that licensure is no longer a requirement to practice animal massage in the state.

A nearly three-year legal battle has ended—the Arizona State Veterinary Medical Examining Board has agreed to stop enforcing the state's veterinary licensing laws against animal massage practitioners. Judge David Udall of the Maricopa Superior Court in Phoenix, Arizona, signed an agreement that prohibits the board from requiring animal massage practitioners to obtain a veterinary license or to work under a veterinarian's supervision.

The three plaintiffs in the case, Celeste Kelly, Grace Granatelli and Stacey Kollman, filed a lawsuit in March 2014 after receiving cease and desist letters from the veterinary board that threatened fines and jail time if they continued their massage practices without completing veterinary school and obtaining a DVM degree.

The women didn't claim to be veterinarians and advised their clients that animal massage wasn't a replacement for veterinary care, according to the lawsuit. However, they argued that the Arizona law is so broad that almost anything done for a fee, like animal massage, is classified as veterinary medicine.

All three plaintiffs had all been privately certified in animal massage with more than 10 years' experience: Kelly from Aspen Equine Studies, Granatelli from Equissage, and Kollman from EquiTouch Systems. Kollman and Kelly are equine massage therapists and Granatelli is a canine massage therapist.

The Institute for Justice, which represented Kelly, Granatelli and Kollman, is a civil liberties organization known for challenging licensing laws across the country.

"The Arizona and U.S. constitutions protect the right to earn an honest living, and we believe that right was violated by a government protecting veterinary industry insiders," said Institute for Justice attorney Diana Simpson, in an institute release. "We are thrilled with this outcome, and it is a wonderful victory for all Arizona entrepreneurs who provide these services." **dvm360**

IMAGE COURTESY OF INSTITUTE FOR JUSTICE

CVC Educator Robert Miller, DVM

Author. Cartoonist. Legend.

Founder of the revolutionary foal training technique known as “imprint training” and a recognized expert on equine behavior, health, and natural horsemanship, Dr. Robert M. Miller was born an innovator.

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UBM

When it comes to equine parasite egg counts, let your phone do the work!

New technology allows in-the-field quantification of parasite burden in your equine patients so you can get on with treatment.

Equine practitioners will soon have another option for counting parasite eggs in patients' fecal samples. Parasight, a smartphone app and test kit, aims to offer a simple-to-use, quick and accurate alternative to traditional slide-count testing. The test allows for onsite testing, with results delivered via the app, email or text messaging to the veterinarian and client in less than five minutes. The technology is projected to hit the market in the second half of 2016, the company says.

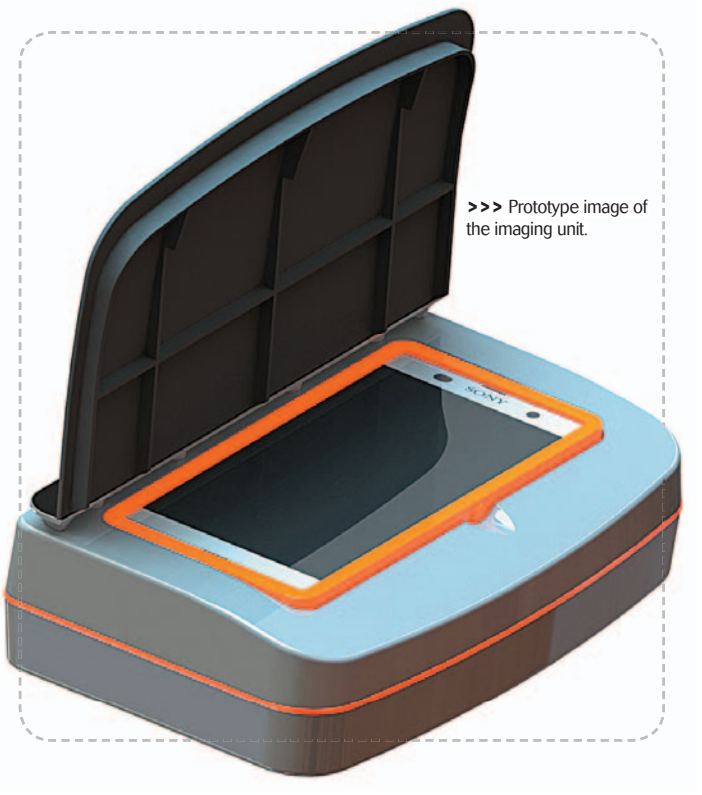
>>> Prototype image of the prep bottle.

The test

The system consists of the Parasight app, Parasight egg separator, Signal Hybridization Technology (SIGHT) processor and Parasight imaging unit. The imaging unit wirelessly transmits data to the app to display the results.

In three steps, the test can be run onsite, eliminating the wait time of sending a sample off to a laboratory or the need for a centrifuge and microscope. Veterinarians simply collect the fecal sample, pass it through a filter system and stain the eggs with the SIGHT reagent. The final step is to image the sample. The reagent causes the eggs to "glow," and the software in the app does all the counting work, allowing clinicians and clients to make treatment recommendations on the spot.

The company projects the testing kits will be affordable, at around $10 per test, and it will be manufactured and distributed in partnership with Zoetis.



>>> Prototype image of the imaging unit.

>>> Prototype image of the reagent dispenser.

The app

The Parasight System App (free, iOs and Android compatible) allows veterinarians to manage and review client test results and provides access to data trends in the surrounding area about parasite outbreaks and drug resistance. The test results are archived securely, and the patient's record is available through the app or a download through the company's web portal. dvm360

PROTOTYPE IMAGES COURTESY OF PARASIGHT AND ZOETIS

A tripointed view on the benefits of veterinary laser therapy

Three takes from three veterinary rehabilitation experts on why you should take this therapeutic modality seriously.

By Mindy Valcarcel, Medicine Channel Director

Pain management and physical rehabilitation are growing in popularity in veterinary practice, much to the relief of sore or debilitated veterinary patients everywhere. And what is one tool veterinary specialists in the realm of rehabilitation reach for without hesitation? Laser therapy. How about you? Have you embraced this modality in your practice?

While they were speaking at one of our recent CVC conferences on this very topic, we grabbed these three rehab specialists to tell us why they turn to this tool—and turn to it they do!

Reap so many benefits

Laurie McCauley, DVM, DACVSMR, CCRT, CVA, CVC, who practices at TOPS Veterinary Rehabilitation in Grayslake, Illinois, readily points out the several benefits laser therapy brings:

- At low doses, it increases adenosine triphosphate (ATP) in cells.
- At high doses, it acts essentially as an axonal nerve block since it stops the transmission of ATP in nerve cells.
- It increases angiogenesis to maintain blood flow in the area.

She does say to be careful in patients with cancer. "To me cancer is not a contraindication; it just means if you have cancer you have to have informed consent," McCauley says. "I've had animals live a lot longer pain-free or at least with diminished pain—of course I'm going to use drugs too. But I can decrease their pain and get a lot longer quality of life by adding other modalities, especially the laser."

Hear more about McCauley's laser love at **dvm360.com/laserlove**.

Get just the right tool

Debra Canapp, DVM, CCRT, CVA, DACVSMR, co-owner and medical director of Veterinary Orthopedic and Sports Medicine Group in Annapolis Junction, Maryland, says lasers are the No. 1 modality she opts for. Her main uses: injuries and maintenance. And she's ready with recommendations for which laser to buy—namely, a class 4 laser that can be reduced in power to class 3B.

"There's a ton of data coming out about more power and what kind of responses you can get from tissue," says Canapp. "If you only want one laser, then you want a class 4 that you can tone down to a 3B, so that way, economically, you're able to do both."

Hear more on why lasers are No. 1 for Canapp at **dvm360.com/lasersno1**.

Lose the reluctance

A little skeptical that a beam of coherent light can be so beneficial in your veterinary patients? Matthew Brunke, DVM, CCRP, CVPP, CVA, who practices at North County Veterinary Referral Center in Glens Falls, New York, was once a skeptic too. But then he started examining some of the variables—attempting to delineate best practices for such things as the wattage, the time, how many joules are delivered into patients and what levels of treatment time are needed.

Brunke looks to human literature: "Let's go back and see what they're doing to advance human treatment options—and in that area laser therapy is making great movements forward," says Brunke. "So if we can take that and then extrapolate that safely to our patients in veterinary medicine, now we're all on the same page." dvm360

GETTY IMAGES/BANKSPHOTOS

Is bupivacaine A-OK for feline OVHs?

Two recent studies indicate that the local anesthetic is effective for postoperative analgesia and seems to lack toxic effects in cats.

By Kathryn Primm, DVM

Controlling feline patients' pain can be especially challenging because of their special metabolism of certain compounds. Is there something we can add to our protocol that can balance cost to the client as well as safety and efficacy for the patient?

Local anesthetics have promise for stopping the wind-up of pain and improving overall recovery. These are appealing because they're cheaper and easy to administer, but there haven't been many studies on safety and efficacy. We know that intraperitoneal (IP) administration of local anesthetics, such as bupivacaine, reduces early postoperative analgesic requirements, pain scores and time to first-intervention analgesia after abdominal surgery in people.[1-6] And in dogs undergoing ovariohysterectomy (OVH), pain scores after IP administration of bupivacaine were lower compared with a control group.[7,8] Recently, two studies looked into whether IP bupivacaine might be beneficial in cats as well.

Study 1: Bupivacaine showed effective postop analgesia for cats

A study in in the *Journal of Feline Medicine and Surgery* evaluated the efficacy of IP bupivacaine (in combination with the opioid buprenorphine) in client-owned cats undergoing OVH. The study included 45 cats, which were anesthetized with acepromazine, propofol and isoflurane and also received buprenorphine. They were divided into three groups of 15 cats each, and a standard ventral midline approach for OVH was performed. The cats in the first group served as the control group and were given IP 0.9% saline solution. The positive control group received IP saline solution and meloxicam (0.2 mg/kg subcutaneously). The final group received IP bupivacaine (2 mg/kg).

Postoperative pain was evaluated by blinded observers who used three different scales: 1) a dynamic and interactive visual analog scale (DIVAS), 2) mechanical nociceptive thresholds, and 3) the UNESP-Botucatu multidimensional composite pain scale. Any cat that needed rescue analgesia was provided buprenorphine, meloxicam or both.

The findings suggested that cats treated with bupivacaine did get effective postoperative analgesia. The prevalence of rescue analgesia was comparable for the group treated with bupivacaine and buprenorphine to the positive control group (meloxicam and buprenorphine) and lower when compared with the opioid-only group.

Study 2: Bupivacaine used in cats wasn't toxic

A second study in the *American Journal of Veterinary Research* looked at the pharmacokinetics and safety following such IP use of bupivacaine. The researchers hypothesized that there would be detectable bupivacaine concentrations in the blood after IP administration, but thought that the toxicity would be low. Their study used eight cats and was set up similarly with the cats scheduled for routine OVH.

All cats were anesthetized with propofol and maintained with isoflurane. The cats were also given buprenorphine and meloxicam. Then a solution of 0.5% bupivacaine (2 mg/kg) was diluted with an equal volume of 0.9% saline solution, resulting in concentration of 0.25% bupivacaine. The solution was split into three parts so that it could be applied to three different areas of the peritoneal space: over the right and left ovarian pedicles and the caudal aspect of the uterus. Blood samples were evaluated for the plasma bupivacaine concentrations at different intervals after administration, and the cats were observed for signs of toxicosis, such as cardiovascular depression.[9]

In this study, IP administration of 0.25% bupivacaine (2 mg/kg) resulted in plasma concentrations that did not result in signs of bupivacaine toxicosis.

Exam-room application

Bupivacaine is affordable and now has been found to be safe and effective. We should all consider adding it to our pain protocols for routine OVH. dvm360

For a list of references and links to the abstracts of these studies, visit **dvm360.com/bupivacaine**.

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TRUST.

- PREVENTS HEARTWORM DISEASE
- TREATS AND CONTROLS 3 SPECIES OF HOOKWORMS
- TREATS AND CONTROLS 2 SPECIES OF ROUNDWORMS
- OWNERS PREFER IT[1] AND DOGS LOVE IT[2]

[1] Data on file at Merial.
[2] Freedom of Information: NADA140-971 (January 15, 1993).

MERIAL

Please see brief summary on page 52

IMPORTANT SAFETY INFORMATION: HEARTGARD® Plus (ivermectin/pyrantel) is well tolerated. All dogs should be tested for heartworm infection before starting a preventive program. Following the use of HEARTGARD Plus, digestive and neurological side effects have rarely been reported. For more information, please visit www.HEARTGARD.com.

Heartgard® Plus
(ivermectin/pyrantel)

Highlights from the world of ferret medicine

Here's an update on adrenal disease therapy for these more unusual veterinary patients, plus the adventure of Zelda, a rare recipient of a pacemaker thanks to Kansas State University.

We'll avoid the obvious pun and say that we searched around and found some news in the world of medicine for these domesticated polecats. (OK, we can't help it ... We ferreted it out. It's impossible to resist!)

Longer-lasting drug therapy for adrenal disease

We've heard about possible ill effects of early spaying and neutering in dogs and cats, but you likely know this can be harmful in ferrets as well, causing adrenal disease.

"It's generally thought to be caused by an overstimulation of the adrenal glands in the absence of the negative feedback provided by the gonads in these early spayed and neutered animals," Julia Whittington, DVM, of the exotic animal medicine department at the University of Illinois Veterinary Teaching Hospital, told dvm360 at a recent CVC.

Surgery used to be the go-to fix, but Whittington says for around the last 10 years, the treatment of choice has become gonadotropin-releasing hormone (GNRH) analog therapy in the form of leuprolide acetate injections (Lupron—Abbott Laboratories), which last six to eight weeks. But Whittington says a longer-lasting treatment has caught on that involves administering deslorelin instead. The deslorelin is administered through an implant in affected ferrets and is effective for three to six months.

Whittington added that an important part of treating these animals is light cycle therapy, "making sure that they have really no more than about 10 hours of daylight in any given day," she says. Go to **dvm360.com/ferrethealth** to watch more from Whittington. dvm360

Zelda's legendary journey to heart health

In other ferret-related news, a team of veterinary specialists at the Kansas State University (KSU) Veterinary Health Center recently pitched in to install a pacemaker in a ferret—a first-of-its-kind endeavor for the university, according to a KSU release.

Christopher Norkus, DVM, DACVAA, CVPP, (who, coincidentally, had been a resident at KSU) diagnosed third-degree atrioventricular block in Zelda, one of three ferrets owned by Carl Hobi, after Hobi noticed she was inappetent and lying down more than usual. Norkus saw Zelda in Pennsylvania while Hobi was traveling and recommended that a pacemaker be implanted by specialists at KSU when Hobi was back home in Kansas.

At KSU's school of veterinary medicine, exotics specialists James Carpenter, DVM, DACZM; David Eshar, DABVP (exotics), DECZM; and intern Louden Wright, DVM, did the initial examination of Zelda, along with cardiologist Justin Thomason, DVM, DACVIM.

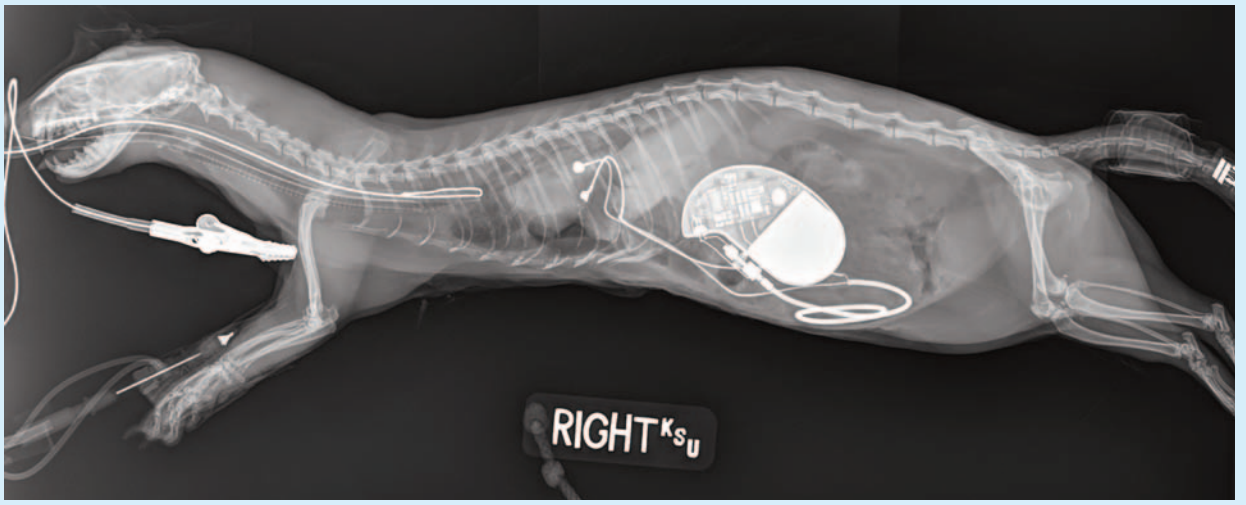
Thomason implanted the pacemaker in Zelda with the help of Emily Klocke, DVM, DACVS, and David Rankin, DVM, MS, DACVAA.

"This was the first time I had ever performed this particular procedure on a ferret, although I have performed it on dogs before," Klocke says in the K-State release. "I was very concerned about how small our patient was and whether I could successfully suture the pacemaker leads to her beating heart without causing severe bleeding. Our anesthesia service, led by Dr. David Rankin, was instrumental in the success of this procedure."

Zelda came through surgery well, staying in ICU for two days before going home with Hobi.

"Dr. Klocke's work was truly magical," says Eshar. "There are only a few millimeters of space within the heart's wall for suturing the leads from the pacemaker. The pacemaker is the same as what would be used in a human patient, but we had to order a special set of leads for Zelda, since these would not be inserted through the veins. It's a very delicate procedure to make everything work correctly."

And since the pacemaker battery lasts for 10 years, Zelda should live a normal ferret lifespan. So her adventure continues …



>>> A postoperative radiograph of the pacemaker in Zelda.

>>> A follow-up visit for Zelda, with her owner Carl Hobi and fourth-year veterinary student Hilary Coulombe.

GETTY IMAGES/FLICKR RF/KANSAS STATE UNIVERSITY VETERINARY HEALTH CENTER

Squish and heat your **trash away!**

A medical waste compactor that's been in the market for years now poses the question, "Do you need to keep paying a company to pick up your medical waste?" The answer may be "no."

By Brendan Howard, Business Channel Director

Why did Jocelynn Jacobs, DVM, buy her own medical waste machine when companies out there can be paid to cart it away for you? Money—and the driver who picked it up was rude.

"They were super-expensive," says Jacobs, owner of Countryside Animal Health Center in Freeland, Michigan. "And they make you sign a contract that's one to two years, and they kept increasing their prices."

Jacobs' alternative, ultimately, was the Medical Waste Machine. The device promised an easy way to superheat medical waste to make it inert, environmentally friendly and ready to be tossed out with the regular trash.

Now, not every practice owner or money-minded practice manager finds their medical waste disposal company an expensive proposition. Multi-practice owner Jeff Rothstein, DVM, MBA, says he saw the Medical Waste Machine when it came out years ago, and he liked the sound of its efficiency and environmental friendly results, so he crunched the numbers.

"I realized that medical waste removal is, at least for me, inexpensive—hopefully I'm not jinxing myself!" Rothstein says. "We pay roughly $50 per quarter for each of our hospitals."

Rothstein does admit the "big dog" in medical waste removal in his practice area likes to try to sell him and his practice managers on such extra services as OSHA training and liability coverage: "I once found out they'd duped a manager into signing an extended contract for their premium service, which wasn't cost effective and was more appropriate for a human healthcare facility."

Sick of your medical waste disposal provider, and want to cook your own medical waste into environmentally friendly bricks? This could be the device for you. Run the numbers. See how you feel about your medical waste company. You know your practice—and your trash—best. **dvm360**

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NexGard®
(afoxolaner) Chewables

Please see brief summary on page 56

[1]Data on file at Merial.

IMPORTANT SAFETY INFORMATION: NexGard® is for use in dogs only. The most frequently reported adverse reactions included pruritus, vomiting, dry/flaky skin, diarrhea, lethargy, and lack of appetite. The safe use of NexGard in pregnant, breeding, or lactating dogs has not been evaluated. Use with caution in dogs with a history of seizures. For more information, see full prescribing information or visit www.NexGardForDogs.com.

Earth Heart

Canine aromatherapy wipes

Earth Heart has introduced its popular line of Canine Calm Aromatherapy in convenient 10-count wipes. Canine Calm Aromatherapy Wipes are designed to calm pets during storms, fireworks, boarding, grooming, clinic visits and other unsettling times. While aromatherapy is commonly used in sprays and diffusers, the development of therapeutic aromatherapy in convenient, travel-friendly wipes creates a new product category for the industry. The Canine Calm wipes are made with pure essential oils to create a serene experience and come in a resealable package.

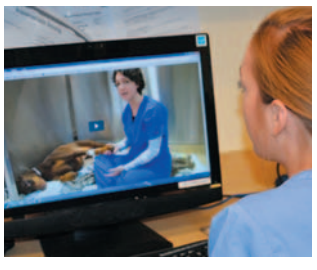
For fastest response visit earthheartinc.com

Samsung Electronics

Chemistry analyzer

Samsung Electronics is offering the PT10V, its point-of-care blood analyzer, in collaboration with Henry Schein. The PT10V delivers compact design, high accessibility, reliability and easy-to-use operation—each attribute's first letters reflect its vision to provide proper "CARE" for lifetime companions. The PT10V can test up to 13 parameters at once, including liver profile, kidney profile and metabolic disorders, and will deliver the result within 10 minutes. Test results can be sent to various devices through an application in smartphones and tablet PCs. The unit uses microfluidic technology in which tests can be performed with only 70 µl of serum or plasma.

For fastest response visit samsungmedicalsolution.com



Atdove.org

Continuing education platform

Atdove.org is a digital training platform for veterinary professionals. All videos are high-definition, available on demand, and feature real patients from DoveLewis Emergency Animal Hospital. Members have unlimited access to more than 450 videos, including procedural shorts and RACE-approved CE. Built-in tools such as quizzes, custom training plans and member-activity reports help ensure success. Veterinarians, technicians, receptionists and managers can all find training for one price.

For fastest response visit atdove.org

Andis

Cordless clipper

The PulseZR detachable-blade clipper from Andis is a heavy-duty, lithium-ion clipper that provides the power of a corded tool in a cord-free design, delivering up to two hours of continuous cutting without losing clipping power. The precision-engineered rotary motor can be set to five speeds, from 2,500 to 4,500 strokes per minute, for improved cutting control. A textured grip offers sure handling for trimming around sensitive areas. This clipper can be used interchangeably with Andis UltraEdge and CeramicEdge blades. The six-piece Pulse ZR kit contains: clipper, CeramicEdge size 10 blade, replacement blade drive, charger stand, charging adapter and blade oil.

For fastest response visit andis.com

Bimeda

Equine reproduction suppressant

In a recent purchase, Bimeda acquired Altresyn and has rebranded it as OvaMed. OvaMed is an FDA-approved generic altrenogest available in the United States, which gives equine veterinarians an alternate choice when prescribing an estrus control product for mares. It's offered in a 1,000-ml bottle and dosed at a rate of 1 ml/110 lbs. It comes supplied with a dosing cap, which is compatible with commonly used dosing devices.

For fastest response visit bimedaus.com

VetDriven

Protective scrubs

VetDriven is now offering Vestex products for veterinary and consumer pet markets in the United States. Vestex combines three technologies to produce an active-barrier fabric intended to minimize the risks associated with unanticipated exposure to body fluids by repelling fluid splatter and spills from the fabric. The breathable fabric contains an EPA-registered antimicrobial agent shown in controlled conditions in laboratory and hospital settings to inhibit the growth of bacteria on the fabric. The scrubs and uniforms made from the fabric are attractive, durable and priced competitively.

For fastest response visit vetdriven.com

Clean-Wise

Wet/dry cleaning system

With the CleanWise wet/dry cleaning system, vacuum suction, fresh water and proportioned disinfectant are available on demand. Floors and kennels are left virtually dry and ready to walk across or occupy. The machines automatically drain themselves and all motors are exhausted outdoors. With extraction and low-pressure fresh water and disinfectant spray, soils and contaminants are sent down the drain or exit through exhaust lines to the outside. This improves indoor air environment, reduces indoor moisture, saves your staff from coming into contact with the messes, and reduces bacteria and possible cross-contamination.

For fastest response visit clean-wise.com

VetSuccess

Lead maintenance program

VetSuccess has released Retriever, an automated email program that helps practices "retrieve" lapsing patients. VetSuccess is a membership service for veterinarians that provides business diagnostics and practice treatment plans to help improve patient care. Retriever consists of a series of three emails sent on behalf of individual VetSuccess member practices who sign up for the program. Emails are automatically sent to the owners of patients who haven't had a transaction in the practice for 14, 16 and 18 months, encouraging them to bring their pet in for a wellness exam. A monthly performance report summarizes how many emails were sent, how many patients made appointments and additional revenue to the practice because of the Retriever program.

For fastest response visit retrieveremail.com

Under The Weather

Probiotic gel

Ready Balance is a fast-acting oral probiotic gel used during times of digestive upset to support normal digestive balance. A stabilized source of beneficial bacteria, the product contains guaranteed levels of live probiotics, select vitamins and the prebiotic inulin in a highly palatable gel base. When given as directed, Ready Balance helps maintain normal appetite, digestion and gut health during times of stress. The convenient dial-a-dose tube ensures accurate dosing levels.

For fastest response visit undertheweatherpet.com

Want to see your product on these pages?

Connect with the Products360 editors by sending an email to **products@ubm.com**.

Tips from a thunderstruck ThunderShirt fan

When a fearful patient comes in, these veterinary team members consider whether a ThunderShirt fitting is in order.

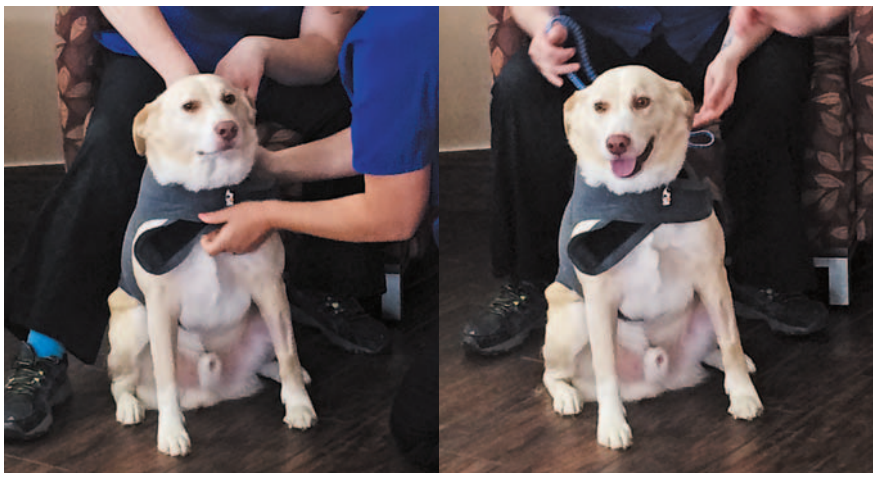
When it comes to ThunderShirts, there are veterinary skeptics, realists and advocates.

Skeptics haven't seen success with the pet-calming garments. They don't stock or use them in the hospital, and they try to steer curious pet owners to other calming alternatives.

Realists have seen it work, but they try not to tout the ThunderShirt too much. They're not comfortable recommending it widely. "Yes," these folks say, "you could buy a ThunderShirt. Tell me if it works."

Advocates, on the other hand, incorporate pet-calming garments as a patient care protocol and a low stress marketing message.

We'll let you guess which one Bigger Road Veterinary Center is.



>>> "We hear, quite regularly, 'This is the most is the most relaxed I've seen him/her in a long time!'," says Kelly Searles.

See it to believe it

When a patient's eyes and ears visibly relax, everyone else in a household—and a veterinary practice—relaxes too. At clinics like Bigger Road Veterinary Center in Springboro, Ohio, team members evaluate patients when they come in. If they seem incapable of calming down, out comes the ThunderShirt.

"ThunderShirts are one of our favorite tools in the proverbial toolbox," says Kelly Searles, practice manager at Bigger Road.

Dogs or cats?

ThunderShirts have ben shown more effective with dogs than with cats. So, the ThunderShirt might work at home for the cat, but Searles hesitates to recommend cat fittings in the clinic.

"The act of putting it on them, coupled with the sound of Velcro, has the potential to actually increase cats' stress in the clinic environment," Searles says. "We've also found that cats with long hair can get a bit tangled up in the Velcro."

A lightning-fast change that sells itself

Once the shirt is on, patients that respond well to the ThunderShirt don't take long to show a positive effect.

"We've seen a noticeable difference in about 85 percent of patients who wear a ThunderShirt while they're visiting," says Searles.

In fact, the practice team has found that more often than not, the change is so noticeable that clients ask to purchase one to have for their pets at home. **dvm360**

>>> ThunderShirts, fully stocked, ready to storm out of the clinic and into the home of a client for further use.

Quick tip

You've decided Prissy the petrified poodle requires a ThunderShirt. Make sure to put her in it while she's still waiting in the lobby (a quiet lobby, of course, not one jammed to the walls with barks, meows and squawks). That way, it'll already have taken effect by the time Prissy actually needs to be handled.

PHOTOS COURTESY OF BIGGER ROAD VETERINARY CENTER

Canine cancer drug loses conditional FDA approval

The drug Paccal Vet-CA1—to treat mammary and squamous cell carcinomas—was withdrawn at the manufacturer's request.

The U.S. Food and Drug Administration (FDA) is withdrawing its conditional approval of Paccal Vet-CA1 (paclitaxel for injection) at the request of Oasmia Pharmaceutical AB, the drug's manufacturer, according to an agency release. The drug was intended to treat certain mammary and squamous cell carcinomas in dogs that had not received previous chemotherapy or radiation therapy.

As of Feb. 8, 2017, the conditional approval is no longer in effect and the drug is now an unapproved animal drug with no legal marketing status. Further sales of the drug are illegal, the release states. Oasmia Pharmaceutical AB must stop marketing the drug, distributors must stop distribution, and veterinarians should stop using it on patients. Pet owners whose dogs are on the drug should discuss other treatment options with their veterinarians.

Oasmia Pharmaceutical AB received conditional approval for Paccal Vet-CA1 (paclitaxel for injection) in February 2014. **dvm360**

What's conditional approval?

Conditional approval is given to 1) animal drugs intended for minor species, such as ferrets or fish, or 2) drugs for minor uses in a major species, such as to treat certain types of cancer in dogs, the FDA states. To qualify, a drug company must prove, among other things, that the animal drug is safe and has a "reasonable expectation of effectiveness" when used according to the label. Conditional approval allows the drug company to legally market the animal drug for up to five years. During the time of conditional approval the company submits the necessary data to the FDA to prove that the drug meets the "substantial evidence" standard of effectiveness for full approval.

High-tech feeders
for the finicky veterinary client

These three alternatives to the old-fashioned food bowl could be the right recommendation for clients who are hungry for the cutting edge of pet wellness.

There are some serious problems pet owners face in watering and feeding their cats and dogs. These new feeders promise to tackle those issues.

"How do I know how much food my pet needs?"

Obe ProBowl (preorders open now for July 2017 delivery) and its companion smartphone app use veterinarian-recommended feeding standards and the cat or dog's size, age and activity level to determine appropriate meal sizes. The smart base weighs and measures the food as the bowl is filled and glows when the proper amount is reached—an amount that automatically updates based on the dog's metabolism and activity level.

The free app provides real-time updates on how much the cat or dog has consumed and gives feeding reminders. It can also be programmed to automatically reorder food from Amazon based on how much the pet's eating. If anything out of the ordinary occurs, it sends out an alert, and the data can be shared with the pet's veterinarian at any time.

>>> This cat is waiting to eat a predetermined amount of food just right for his weight. But he needs you to stop staring at him now. Come on. Come on, stop staring.

>>> Two dogs enter. One dog eats. Don't worry. The other dog gets fed too somewhere else. He's not starving.

"How do I feed different diets to different pets?"

The PortionPro Rx is activated by RFID attachments on pets' collars. Only a pet wearing an "allowed pet" RFID is free to chow down. When the non-eating pet (the one that's been eating too much or scarfing up the other animal's special diet) gets close, the "denied pet" RFID attachment triggers the slow closure of a panel that seals off the food.

Don't worry! If an intrepid food ninja gets a snout, a tongue or a paw into the kibble container, the door will open a bit, wait for a startled exit and then close. No pinch, no squeeze, no yelp.

Cats are fed on an optimized feeding schedule that involves a predetermined amount dispersed into small meals several times over a 24-hour period to match how free-roaming cats feed; dogs can be programmed for two to three meals over 12 hours.

"How do I get my cat to lose some weight?"

The NoBowl Feeding System, developed by Elizabeth Bales, DVM, invites cats to "hunt" their dry food. The tactile, prey-shaped design of the NoBowl stimulates a cat's natural use of its claws and teeth to fulfill the need to grip and play with food. Once a cat is trained to use the NoBowl system, owners portion out the day's food between five NoBowls and then hide them around the home. The cat will hunt, play, eat and then rest until hunger drives her to hunt again—just as in nature.

NoBowl also has a program called Catvocate Pro, which offers wholesale pricing for veterinarians to carry the system in their pharmacy or retail area. **dvm360**

>>> Awww, look at the adorable cat practice its normal murder magic to get food!

Leash hooks, aromatherapy and nonslip mats

Check out even more cool vet-friendly products for practices and pet owners at home in "Pet Products" in the marketplace at **dvm360.com/petproducts.**

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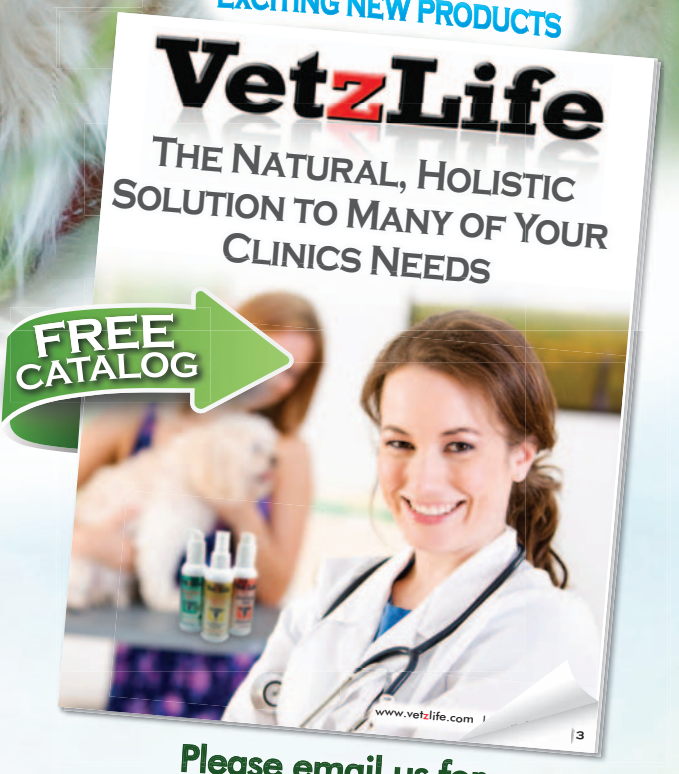

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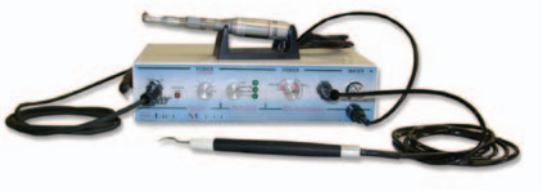

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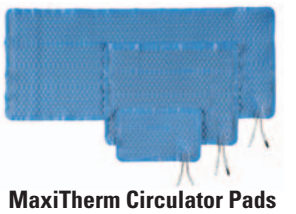

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UBM

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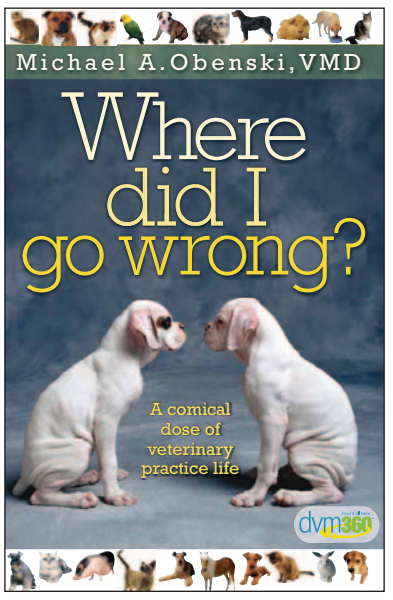

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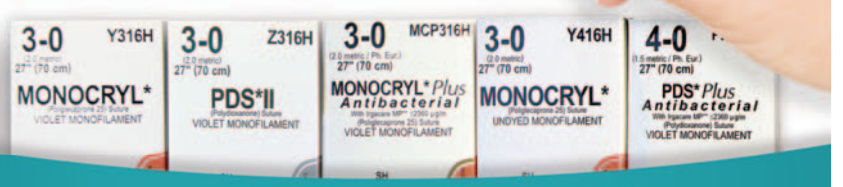

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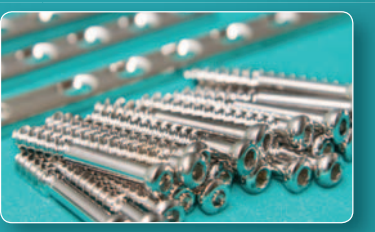

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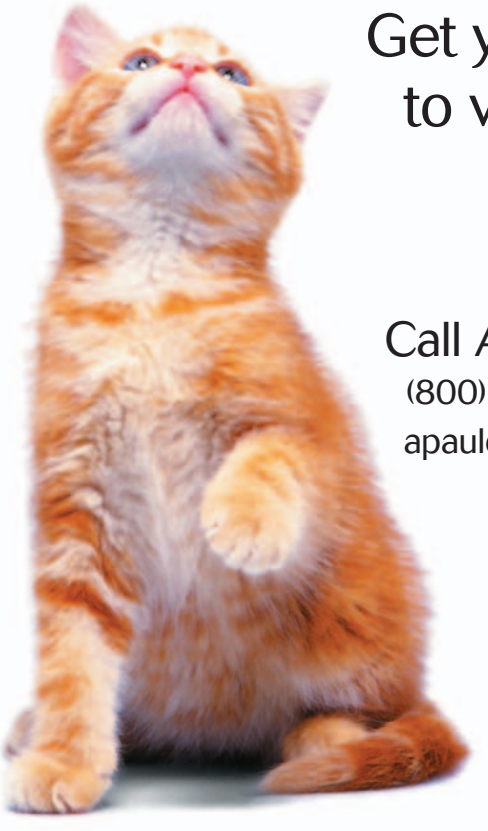

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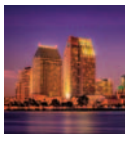
For a full listing of events in 2016, visit dvm360.com/calendar

May 18-21, 2017
CVC Virginia Beach
(800) 255-6864, ext. 6
thecvc.com/vb

August 25-28, 2017
CVC Kansas City
(800) 255-6864, ext. 6
thecvc.com/kc



December 7-10, 2017
CVC San Diego
(800) 255-6864, ext. 6
thecvc.com/sd

CVC unconventional

Here are the CE opportunities coming in the next few months

May 16-18
International Veterinary Forensic Sciences Association 10th Annual Conference
New York, NY
(646) 291-4583
aspcapro.org/international-veterinary-forensic-sciences-association

May 18-21
CVC Virginia Beach
Virginia Beach, VA
(800) 255-6864, ext. 6
thecvc.com/VB

May 20
Comprehensive Extracapsular Stifle Stabilization Course
Savannah, GA
(774) 230-4195
securosuniversity.com

May 20
JumpStart! Boot Camp
Renton, WA
(425) 396-3191
wsvma.org

June 2-4
Blood Bank Boot Camp
Davis, CA
(530) 752-3905
vetmed.ucdavis.edu/ce/

June 3-4
Frank 1.0 Workshop
Fort Collins, CO
(970) 297-1273
cvmbs.colostate.edu/ce/frank-1-workshop

June 5-9
The VMC School of Veterinary Practice Management
Denver, CO
(303) 674-8169
vmc-inc.com

June 8-10
2017 ACVIM Forum
National Harbor, MD
(303) 231-9933
acvim.org/ACVIM-Forum-Home

June 9-11
Fundamentals of Dentistry | 3-Day RACE Accredited Series
Baltimore, MD
(410) 828-1001
AnimalDentalTraining.com

June 9-11
Animal Chiropractic Module 4/Parker University
Dallas, TX
(800) 266-4723
ce.parker.edu/courses/animal-chiropractic/animal-chiropractic-program/

June15-17
AAHA Veterinary Management Institute (VMI)
Fort Collins, CO
(303) 986-2800
aaha.org/vmi_registration

June 17-18
Frank 2.0 Workshop
Fort Collins, CO
(970) 297-1273
cvmbs.colostate.edu/ce/frank-2-workshop

June 20-23
Vet Vacation CE
Napa Valley, CA
(888) 488-3882
vetvacationce.com

June 24
Comprehensive Extracapsular Stifle Stabilization Course
Virginia Beach, VA
(774) 230-4195
securosuniversity.com

June 24-25
Texas A&M Annual Veterinary Technician Seminar
College Station, TX
(979) 845-2351
vetmed.tamu.edu/ce

June 25
It's What's Up Front That Counts!
New Orleans, LA
(303) 674-8169
vmc-inc.com

June 25
Comprehensive Canine and Feline Dental Extraction Course
Virginia Beach, VA
(774) 230-4195
securosuniversity.com

June 28
Emerald Coast Veterinary Conference
Sandestin, FL
(678) 309-9800
emeraldcoastvc.com

June 29-July 02
2017 Pacific Veterinary Conference
Sacramento, CA
(916) 649-0599
pacvet.net

July 8-9
Veterinary Dental Course—Dentistry CE for Veterinarians & Technicians
Cincinnati, OH
(941) 276-9141
veterinarydentistry.net

July 9
It's What's Up Front That Counts!
Newark, NJ
(303) 674-8169
vmc-inc.com

July 14-16
Animal Chiropractic Module 5
Dallas, TX
(800) 266-4723
ce.parker.edu/courses/animal-chiropractic/animal-chiropractic-program/

July 17-18
Human Resources Bootcamp
Phoenix, AZ
(303) 674-8169
vmc-inc.com

July 19-22
Vet Vacation CE
Springdale, UT
(888) 488-3882
vetvacationce.com

July 20-21
Financial Boot Camp
San Diego, CA
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July 21-23
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AnimalDentalTraining.com

July 23
It's What's Up Front That Counts!
Detroit, MI
(303) 674-8169
vmc-inc.com

July 27-30
AAHA Adventure CE Pack Trip
Jacson Hole, WY
(720) 963-4424
aaha.org/professional/education/adventure.aspx

July 28
Regional Wildlife Medicie Symposium
Banner Elk, NC
(828) 898-3521
lmc.edu/community/wildlife-medicine-symposium.htm

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Why I love my job

An 80-year-old illustration on the significance of the work we do.

We were all told somewhere along the line in veterinary school that we each had a reason for wanting to practice veterinary medicine. It might be money, fame, the challenge of medicine and surgery, compassion for animals or the gratitude of owners when we helped their animals. By the end of our careers, our instructors continued, it would be fairly obvious just what motivated us in this profession.

I have watched 27 years of practice pass by and wondered several times where I fit into this list. I think most veterinarians have a compassion for animals, so that one's a given. But what has kept me going for all of that time? The case I am about to describe illustrates perfectly why I love this job so much.

A difficult introduction

Benny was an 80-year-old man I'd never met before. He stood before me with a 20-year-old gelding that had a tremendously damaged left hock. All the skin was gone over the dorsal side of that area of the leg, and the joint was open and contaminated. The gentle old gelding stood on the other three legs with both ears hanging low and a sad expression in his eyes.

"That's a terrible injury sir," I said with as much compassion and realism as I could muster. "I'm afraid that joint is badly infected and it looks like it's been injured a few days already. There's dirt in the joint and no living skin left to suture. I'm not sure how effective treatment is gonna be, and it could sure run into a lot of money and still not save your horse."

"What are you saying, veterinary man?" Benny demanded. "I drove 100 miles to get this horse here to you and I didn't come all that way for a pessimist to tell me it can't be fixed. I was hoping I had come to a place that had a staff with some confidence and know-how, but it appears I was wrong. I'm an old man, and that horse is my best friend. Now fix him and I'll be back to get him in a couple of weeks when he's well."

My intern and I stood without moving as Benny glared at us from under the brim of his cowboy hat. Eventually he ambled over and got in his truck and drove away. As the truck disappeared down the road, I wondered if that guy had smiled once in his life.

"Do you think there's any chance of fixing that?" the intern asked.

"It's bad," I replied. "I've never seen a joint that messed up get happy, but let's give it a try."

"That old dude has no idea how bad that leg is," said the intern. "He seems to think it'll just be a couple of weeks of hydrotherapy and he'll be rounding up cattle again. You didn't even tell him how much it's gonna cost, and he never asked. Usually when people don't ask, it means they don't intend on paying."

"I bet he'll pay," I said. "I don't think he's as grumpy as he puts on."

So we went to work. It was a tough case with many chances for failure along the way. We were about four days into treatment when Benny's adult grandson showed up at the clinic. He was a kind man with a sincere expression who had seen the injury and knew how bad it was.

He told us all about it—not the injury, but the story of Benny. The old cowboy had cancer. It had been diagnosed about three months ago and it was not a good kind. That horse was his best friend and he rode it every day to check cattle in his pastures. It was the only horse he trusted, and at 80, getting pitched off could be deadly. Everyone in the county had offered to give him a gentle gelding to substitute, but he told them if he couldn't ride his horse, he wasn't gonna ride at all.

The grandson said Benny would be in cancer therapy and surgery for the next three months and that if we could get that horse fixed and ready to ride by the time they released him for horseback, it would be better therapy than the entire world of medicine could offer.

A time to heal

Luck was on our side. We worked hard and the horse was a great patient. In three months the leg had healed beyond what I'd even hoped for. But we hadn't heard a word from the old cowboy. He wouldn't answer his phone, and we didn't have the grandson's number.

One morning I got to work and the grandson was in the parking lot with a trailer. He walked across the parking lot with a halter, ready to take ol' gray home. Two days later I got a message on Facebook from the grandson. It was a picture of Benny gathering a pasture of cows on that horse with a smile on his face that glowed like the sun. The caption was simple: "Thank you, doc. You made one old man happy again! First time he has smiled in half a year."

After 27 years I know the reason I do this every day. Yes, it's to help that old horse and every patient like him that comes in. Yes, it's to make money and take care of the people who work with me and my family. Yes, it's to have some notoriety and face the challenges of hard cases.

But Benny's story may be my true motive. I have 50 close friends who are veterinarians in small towns and giant cities, and I know they feel the same way. There's nothing better than watching people smile because some horse, dog, cat or critter is still in their lives, and we had something to do with keeping it that way. **dvm360**

Bo Brock, DVM, owns Brock Veterinary Clinic in Lamesa, Texas. His latest book is Crowded in the Middle of Nowhere: Tales of Humor and Healing From Rural America.

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- Proteinuria or urine protein:creatinine (UPC) ratio >0.5 in a dog or >0.4 in a cat
- History of weight loss, decreased appetite, polydipsia, polyuria
- Physical examination findings, such as palpable kidney abnormalities
- Creatinine, BUN, and/or phosphorus above reference interval
- Creatinine increasing within reference interval
- Anemia
- Other diagnostic findings (abnormal kidney imaging, unexplained hypertension)

YES

NO → **Recheck in 2–4 weeks** → **If SDMA remains increased**

Kidney disease probable—act immediately

Follow IMM protocol

Investigate

To identify an underlying cause, perform:

- Urine culture and MIC susceptibility
- Infectious disease testing (Lyme disease, leptospirosis, ehrlichiosis, FeLV, FIV, FIP, toxoplasmosis)
- Diagnostic imaging (stones, pyelonephritis)
- History/possibility of toxin exposure?
- History/exposure to potentially nephrotoxic drugs?

For confounding conditions, assess:

- Hydration status
- Blood pressure
- Urine protein:creatinine ratio
- Thyroid status

Manage

Treat appropriately

- Underlying disease if identified
- Clinical dehydration
- Persistent hypertension
- Persistent proteinuria
- Hyperthyroidism

Provide kidney support immediately

- Feed kidney-supportive diet
- Provide fresh, clean water sources
- Discontinue all potentially nephrotoxic drugs if possible

Adjust anesthesia protocols

- Provide intravenous fluids, before, during, and upon recovery
- Provide oxygen, before, during, and upon recovery
- Maintain and monitor blood pressure and body temperature
- If needed, use narcotic for pain management

Monitor

Underlying or confounding disease identified

Monitor as indicated

Underlying or confounding disease not identified

Recheck in 2 weeks

SDMA returns to normal

- Kidney function has returned to normal
- Monitor confounding conditions and other underlying disease if present

SDMA remains increased but stable

- If SDMA and creatinine are stable, chronic kidney disease (CKD) is diagnosed
- Initiate appropriate treatment based on International Renal Interest Society (IRIS) CKD staging

SDMA continues to increase

- If SDMA and/or creatinine are increasing, consider ongoing, active kidney injury
- Perform additional diagnostics to determine cause and to guide treatment

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*Symmetric dimethylarginine.

†SDMA reference interval is 0–14 µg/dL. However, in puppies, the SDMA reference interval is 0–16 µg/dL. SDMA reference interval studies are underway for kittens and greyhounds, and results may also be slightly higher and should be interpreted in light of other findings.

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