Diabetic Control: How to Get There Using a Team Approach

Dr. Krecic: Let’s start by looking at results from a survey of almost 150 general practice veterinarians. Zoetis asked the group, what level of diabetic monitoring do you do? For dogs, most still prefer in-office monitoring, using either a glucose curve for several hours in the hospital or a simple spot check plus fructosamine, citing client preference. A bit higher percentage liked at-home monitoring in cats. What do you think about these responses?

Dr. Ford: Their perception of the owners’ ability is rather low. Taking a capillary sample is something kids do when they’re diabetic. Once you get the hang of it, it takes less than 2 minutes to take the sample and write it down. The owner can get a good night’s sleep, knowing their pet has a blood glucose that’s normal and is going to be okay throughout the night.

Dr. Krecic: And the time constraint argument?

Dr. Ford: I’ve heard that a lot, but should we let time constraints prevent us from doing a good job? My clients transmit their blood glucose numbers via Google Docs on Monday and they know we’ll get to them by Thursday. You don’t have to follow a strict deadline.

Dr. Cook: The veterinarians don’t seem to perceive that data might be compromised by physically being in the hospital. To me, the nice thing about doing it at home is that it reflects what the animal’s life is like. The dog that usually sleeps at home all day gets to sleep at home all day.

Dr. Lathan: Possibly, the results reflect a negative attitude toward home monitoring to begin with, rather than having tried and failed. Anxiousness about having not done it before. Lack of motivation and time to educate themselves and their clients.

Dr. Bugbee: The time concern probably dictates a lot of the hesitation—fear of the unknown and the concern that they’ll have to take more phone calls every day.

Dr. Ford: Many obstacles to monitoring blood glucose at home arise from perceptions by veterinarians. Technicians can be very adept in the role of client educator and thrive on the challenge and results. Client interactions stand to improve with home-monitoring. The diabetic care team includes the pet owner and everyone at the clinic who has contact with the owner or the pet.
Dr. Bugbee: For veterinarians with no experience doing this, we’d have to help them set up a successful program for at-home monitoring. Not everybody’s as excited as we are about doing this. We need to make it tolerable and feasible.

Dr. Cook: We’ve got to be flexible, though. Even though I support home monitoring, I’m more concerned that we get veterinarians prepared to give a diabetic pet the attention it requires. Diabetics are most vulnerable for being euthanized within the first 2 weeks after diagnosis.

Dr. Krecic: Survey participants said about 90% of their clients prefer to have monitoring done in a hospital. How much does the lack of communication play into client hesitancy?

Dr. Lathan: We need to emphasize that it’s a prick of the ear or whatever site you’re using. It’s not injecting a needle.

Dr. Krecic: Zoetis customer service receives phone calls from clients with questions about how to obtain the capillary sample, especially unassisted.

Dr. Ford: A big dog will lie on its side, give you an elbow callus or lip, and won’t even move. Little dogs and some cats tend to be more difficult. A trick is to take the blood glucose while they’re eating. Use the pisiform, the non–weight-bearing paw pad. If they’re eating, pick up the foot like a horse’s hoof and just pop it. If they’re food-motivated, they don’t even notice.

Dr. Cook: I try to avoid the words blood sample. I say, “I’m going to have you do an ear prick,” like a finger prick.

Dr. Bugbee: We were surprised to find the lip was the best tolerated site for patients that don’t bite.

Dr. Ford: Some owners hold their animals in their lap. Operant conditioning is really important, so you give them a high-protein treat like chicken, get them in position, give them a treat, get the blood glucose, and give another treat. It’s important that the animal is comfortable and that you’re in a well-lit area so you can see what you’re doing. Never do it in their space. Don’t go to their bed, which is their haven.

Dr. Bugbee: You have to figure out what works for them. Once they go through the motions and have some troubleshooting for the first week, most owners don’t have complications and are able to do it by themselves. The big thing is training them on what not to do, and that’s to not over-restrain the animal and make it a horrible experience.

Dr. Krecic: I have about 18 months of records from general practices, and I’m examining frequency of visits and how they monitor diabetic patients. The spot check leads the pack, but fructosamine is gaining. In-hospital blood glucose curves were haphazard at best. In some instances, readings were done morning and afternoon—so a little better than a single check.

Dr. Lathan: I’ve never had success using fructosamine. I don’t really know what to do with it.

Dr. Ford: We look at it, but it’s meaningful to me if I’m worried about Somogyi. It’s just another piece of the puzzle.

Dr. Lathan: Do you think a fructosamine actually guides your decision more than clinical signs in that situation?
Dr. Cook: Certainly if the fructosamine was high and the weight was down, I would tend to nudge the insulin a bit higher even if the client said, “No, I think he’s fine.” What frustrates me about fructosamine is that it’s more of a trend within that individual because the acceptable range is really wide.

Dr. Lathan: Getting back to the records you analyzed, were they increasing insulin doses based on all of these?

Dr. Krecic: Clinical decisions about increasing or decreasing the insulin were always based on everything that they did or didn’t do—always.

Dr. Lathan: What about the outcomes? I’m very curious to see how long animals live if they have insulin adjusted based only on spot glucose checks.

Dr. Krecic: Most of these animals were living for several years. One dog was diagnosed 5 years ago and was still chugging along despite us getting in the way. I believe that particular dog developed cataracts within a couple months of its diagnosis. About 9 of the 50 or so dogs had cataracts. Four of them presented for diabetic ketoacidosis (DKA), and at least 6 of them had clinical hypoglycemia. Seizures were reported too, and clinical hypoglycemia was reported in 4 of the cats.

Numbers vs Clinical Signs

Dr. Lathan: Were they recording clinical signs during these visits? I wonder whether veterinarians rely much on clinical signs.

Dr. Krecic: The clinical signs were often written in the record, but as time went on, especially as the frequency of the visits increased, the detail diminished.

Dr. Bugbee: Were body weights recorded?

Dr. Krecic: Actually, that’s one number they seemingly didn’t pay attention to, unfortunately. When it was there—down and down and down. Scarily down. Some cats were losing 10% of their body weight in a short time, and seemingly nobody addressed that.

Dr. Cook: Good point. We get phone calls where people rattle off a few random glucoses, and I’ll ask, “What was his weight this visit compared to last visit?” and it’s obviously not even crossed their mind.

Dr. Krecic: Some records noted that clients asked, “When should I return to check the blood glucose?” You’ve got clients who want to do more but maybe aren’t being encouraged to do so. When the pets actually came into the office, they would get their periodic check. Then they’d return pretty much every other day for weeks because their insulin was adjusted—half a unit here, half a unit there. They’d check twice a day with the owner coming in every other day to drop the dog off. I could just sense the misery.

Dr. Ford: Were there a lot of these cases?

Dr. Krecic: Oh, yes. The pet owners commit for some variable period and then fall off the radar. They come back when they need a vaccine and start this whole process again. Some of these animals were never seen again.

Dr. Cook: It’s amazing how resilient many diabetic dogs are, and they can live for tremendously long periods of time. Most veterinarians, I think, believe they should avoid hypoglycemia, and these dogs live their lives with chronic blood glucose concentrations of 300 mg/dL and do amazingly well as long as they don’t pee in the house.

Dr. Bugbee: We’re trained in most other disease processes to get a number and then do something about it. In these cases, they re-check and get another high blood glucose the next day … so they increase the insulin dose.

We’re trained in most other disease processes to get a number and then do something about it. In these cases, they re-check and get another high blood glucose the next day … so they increase the insulin dose.

—Dr. Bugbee
The other big issue from the veterinarian’s standpoint is client communication. One solution is to have a dedicated technician to handle the phone consultation.

—Dr. Lathan

If we’re not preventing cataracts in dogs or getting cats into remission, what’s the impetus to change what we’re doing?

Dr. Ford: It’s quality of life. If you can get a dog to be mainly normoglycemic, their quality of life is significantly better—the client says, “Oh, my dog’s like a puppy again!” But many complications can shorten that dog’s life. I always ask, “If it was my pet, what would I want their blood glucose to be?” If it was a cat, I’d want it to be under 200, and if it was a dog, I’d want it to be under 300—and that’s what I strive for. Some clients are perfectly happy with their dogs having cataracts and blood glucose in the 400s, but other owners want better care, and we should offer that.

Dr. Ford: Ideally, veterinarians have to do capillary samples in their practice. You shouldn’t ask owners to do something that you’re not willing to do yourself. If they won’t train themselves, they won’t train their technicians, and the technicians won’t train the owners.

Compensation for Time

Dr. Krecic: In terms of home monitoring, veterinarians have expressed concern about less frequent patient visits because the owner is doing the monitoring at home, and they fear after-hours panic calls, or owners calling every other day with questions about their numbers. The revenue/profit aspect is a concern.

Dr. Cook: The idea of not being compensated for time needs to be very openly addressed. I certainly appreciate the time to address an inbox full of curves. I try to convey to owners that I will review their data but we don’t constantly need to be in touch unless there’s an alarm point. If clients are collecting blood glucose readings, empowering them to decrease an insulin dose is certainly appropriate. But I wouldn’t routinely expect clients to do so. They’re collecting data once a month to share with me. I tell them I’ll see them every 3 months, and they’re going to bring me 3 sets of curves, which is much more useful than me doing 1 curve.

Dr. Lathan: We need to recognize that some veterinarians don’t favor at-home blood glucose monitoring because they’re in an area where the owners have financial problems. Maybe I need to say, “I have to educate veterinarians more on clinical signs.” If they’re using a single glucose to adjust insulin, they’re probably better off adjusting it based on clinical signs.

If they’re using a single glucose to adjust insulin, they’re probably better off adjusting it based on clinical signs.

—Dr. Lathan

Dr. Cook: We have to start with small changes, like, “Don’t just weigh the pet but actually look at the last weight and make a little arrow up or an arrow down.”

Dr. Ford: It’s quality of life. If you can get a dog to be mainly normoglycemic, their quality of life is significantly better—the client says, “Oh, my dog’s like a puppy again!” But many complications can shorten that dog’s life. I always ask, “If it was my pet, what would I want their blood glucose to be?” If it was a cat, I’d want it to be under 200, and if it was a dog, I’d want it to be under 300—and that’s what I strive for. Some clients are perfectly happy with their dogs having cataracts and blood glucose in the 400s, but other owners want better care, and we should offer that.

Dr. Krecic: In terms of home monitoring, veterinarians have expressed concern about less frequent patient visits because the owner is doing the monitoring at home, and they fear after-hours panic calls, or owners calling every other day with questions about their numbers. The revenue/profit aspect is a concern.

Dr. Cook: The idea of not being compensated for time needs to be very openly addressed. I certainly appreciate the time to address an inbox full of curves. I try to convey to owners that I will review their data but we don’t constantly need to be in touch unless there’s an alarm point. If clients are collecting blood glucose readings, empowering them to decrease an insulin dose is certainly appropriate. But I wouldn’t routinely expect clients to do so. They’re collecting data once a month to share with me. I tell them I’ll see them every 3 months, and they’re going to bring me 3 sets of curves, which is much more useful than me doing 1 curve.

Dr. Krecic: What’s the time point that they’re doing the collection?

Dr. Cook: I encourage them to pick a day when they’re going to be home and check every 2 hours so we get a long curve. Most
people are usually up for 14 or 15 hours, so they can do it every couple hours without too much of an ordeal. If you say do it once a month, then maybe they’ll do it every 5 weeks or so. The owner gets most of the supplies from you, and you factor in a monthly fructosamine. So, allowing for making some profit on the supplies, it’s a reasonably profitable way of monitoring.

Dr. Krecic: What about drop-offs?

Dr. Cook: Most of us charge less for a drop-off because there’s a perception that it should be cheaper than an appointment. On average, you’d charge less than your appointment fee, and you’re probably going to do 5 glucometers in the course of your workday. What we need to consider, though, is that we could have put something else in that cage. Most veterinarians don’t want a cage empty, so they allocate cages for boarding or daycare or elective surgical procedures. Even if you have a good technician, they’ll spend 5 minutes each time they bring the animal out of the cage to collect a blood glucose. Pulling them away from their other tasks has an opportunity cost. The other sad thing is the fly-by conversation. You’re trying to get a sense of how the dog is doing and meanwhile the client has a toddler in tow and is trying to return home to fix dinner, and all you have is one set of data. I think it’s pretty easy to argue that in-hospital monitoring is not terribly profitable.

Dr. Krecic: How about client satisfaction?

Dr. Cook: For long-term success with any chronic illness, efforts to build the relationship with the client are tremendously valuable. When I switched over to at-home, I was struck by how much better my client interactions were. The clients would come in with the dog and their data. We’d get 15 minutes, their time and my time, to sit and talk about how things were going. Often during a 15-minute appointment, something comes up and you can add a service that you might not think of with a drop-off. The client says the urine smells a bit funny, you do a urine culture. Or let’s check a blood pressure today. My clients are more satisfied because they feel supported and recognized.

Dr. Ford: And the data aren’t reliable, which is my biggest problem with it. So we’re stressing the pet and the owner, and we can’t make educated clinical decisions because the numbers are taken in the face of hospital stress.

Dr. Lathan: The other big issue from the veterinarian’s standpoint is client communication. One solution is to have a dedicated technician to handle the phone consultation.

Dr. Krecic: How empowering is it for technicians to be tasked with facilitating communication between the pet owner and the veterinarian with regard to diabetes monitoring?

Dr. Bugbee: The reason why we lost our dedicated diabetes technician is because she became so involved and excited about working with clients and educating people that she left to begin teaching at a technician training program.

Dr. Ford: We taught all 5 of my technicians how to talk to clients about home monitoring. The first time I watched them do it, and the next time they were on their own. I have a really stable group of technicians, all of whom have worked for me for 5 or more years. They’re really interested in it. What they really like is when the patients come back doing better.

Dr. Krecic: What was the time investment for you to train your staff?

Dr. Ford: The initial training is on the job, not outside time.

Dr. Bugbee: We actually have patient advocates who sit and talk with owners while they’re waiting. The owner feels comfortable venting to them that the dog’s been peeing all over the house. The patient advocate will relate any such
We actually have patient advocates who sit and talk with owners while they’re waiting.

—Dr. Bugbee

Making sure your reception staff has a positive view of diabetes and home monitoring is really important ...

—Dr. Cook

Making sure information to the doctor to make sure it’s discussed.

Dr. Ford: Generally, the patient advocates are exceptional receptionists that really seem to connect with the pet owners and their animals.

Dr. Cook: Making sure your reception staff has a positive view of diabetes and home monitoring is really important, because sometimes the clients make a remarkably powerful relationship with them. The last thing you want is a receptionist saying, “I’m so sorry it’s diabetes.” It’s good for all of us if they’re saying, “Oh, diabetes? We see them all the time.” It just strengthens our relationship.

Dr. Lathan: What evidence do we need to be convinced to do home monitoring? I don’t know that we have any data comparing it to in-clinic monitoring.

Dr. Krecic: How necessary is that scientific information?

Dr. Lathan: Probably more for internists, but then internists are the ones who often guide general practice veterinarians. Are we looking at increased remission rate? Obviously if cats go into remission, clients are happier—but what does it take to get them into remission? With dogs, we’re not aiming for remission, but we’re aiming for better control. As far as I know, we don’t have any published studies showing that better control results in fewer cataracts.

Dr. Ford: No, you need an ophthalmologist to be right next to you to look at these dogs’ eyes.

Dr. Lathan: At the same time, somebody who has a cat they have to catch might be much more inclined to monitor glucose at home, or a little poodle that is terrified and shakes the whole time when it goes into the hospital. That’s one thing we can use to encourage more owners to do it, because the owners are worried about Fluffy stressing out.

Dr. Bugbee: Based on the quality-of-life study,2 too, cat owners in particular want to be more involved in managing the cat’s disease. At-home monitoring would definitely satisfy that desire.

Dr. Cook: I think another one of those quality-of-life things is the terror of hypoglycemia.

Dr. Ford: We routinely manage biochemically hypoglycemia in the home setting. If they get a blood glucose of 60, I tell my client to re-check it, and if it’s still below 80, I tell her to feed her pet and check again in 30 minutes. If the pet is not aware enough to eat, I tell them to give a certain amount of corn syrup that we calculate based on body weight. Most animals that get biochemically hypoglycemic are managed at home, which empowers owners and saves everybody a whole lot of stress.

Dr. Cook: If I’m trying to convince somebody to monitor at home, I emphasize peace of mind. If you’re ready to go to bed and have that weird feeling about how your dog or cat looks, you can get dressed and go to the emergency room, spend $300, and wait 2 hours for a blood glucose—or you can do a skin prick, it’s 250, and turn off the light.

REFERENCES
1. Veterinary Online Interactive Community Exchange (VOICE) survey July 2015, Zoetis, Inc.