0:00:04.1 Katie Berlin: Hi, welcome to Central Line. I'm your host, Dr. Katie Berlin. I have a little bit of a special treat for you today. As many of you know, AAHA put out an update earlier this year to the 2018 diabetes management guidelines. This update was a small one, but an important one. And so we've had diabetes on the brain here for a little bit this year. And this episode is actually made possible by one of our major supporters of those guidelines, Boehringer Ingelheim Animal Health. So we really appreciate their support always. And when the AAHA team was thinking about diabetes, we were thinking about how it must feel to be a client on the other side of that table. When your beloved pet is diagnosed with diabetes, it's such a chronic and difficult disease to treat in a lot of cases. And it must just feel very overwhelming if you don't have a lot of experience with it... With family members or no medical background at all. And so that inspired us to bring some of those clients onto the podcast. And luckily, I had some in the family. So David Berlin and Alex Bronson, welcome to Central Line.

0:01:18.0 David Berlin: Thanks. It's great to be here.

0:01:19.2 Alexandra Bronson: Hi, Katie.

0:01:21.5 Katie Berlin: And we also have Audrey here. Audrey is the furry family member in question today. So you can see, if you're watching the video here, she's joining us. I'm sure she'll get restless and run away soon, but I'm glad she stayed to sign on with us. So David is my brother. And I remember very clearly hearing from you that Audrey had been diagnosed with diabetes, which is... It must have been a lot for you. And we're definitely gonna get into that, talk about what it's been like for you guys and what your experience has been. But oh, Audrey is done. But first, I just wanted to introduce our listeners to you two. So Dave, would you mind giving us a little bit of intro to yourself? How did you come to be here? And what do you do for a living?

0:02:07.2 David Berlin: Sure. Well, as previously mentioned, I'm your little brother. And I live here in Brooklyn with my wife Alex. And I've been an educator, elementary, middle, and high school, for 15 years now. And proud cat dad to Henry and Audrey.

0:02:23.0 Katie Berlin: They are super lucky cats because they have a pretty good life, gotta say. And Alex, how about you?

0:02:30.3 Alexandra Bronson: Yeah. I am lucky enough to be part of this family. My name is Alex Bronson. And I've also been an educator for 15 years. And I'm currently a principal at a middle school in Brooklyn, part of the Uncommon Schools, and have for just as long been cat mom to Henry and Audrey.

0:02:53.9 Katie Berlin: It's so great to have you both here. I love seeing your faces on the screen with me. And you really are great cat parents. And God love you for working in education for so long. So and that really comes back to the fact that all of our clients have a life outside of that exam room. And stresses, and pressures, and schedules, and all sorts of factors that it's very easy to forget about when we're the one just... We know we have a job to do and we gotta give you the information you need. And sometimes, it's very hard for us to put ourselves in your shoes. So I
really appreciate you taking the time to talk about this with us. Before we get started, I always ask a
personal question at the beginning of the episode. And obviously, since we're talking about Audrey
today, we're talking about Audrey probably a lot more than you guys. Sorry.

0:03:45.0 Katie Berlin: She's the center of this conversation. So I would like to know, what would
the title of Audrey's autobiography be?

0:03:53.0 Alexandra Bronson: So the title came clearly to me. Audrey is the one member of our
family who can do nothing wrong in David's eyes. And he goes to great length to ensure that she is
in extreme comfort, even when she does something that is... The impact is one that is difficult. She
didn't do anything wrong. And so I believe her autobiography title would be, I Am Perfect.

0:04:26.6 Katie Berlin: I'm sure if you asked her, she would also come up with that title.

0:04:30.2 Alexandra Bronson: Yeah.

0:04:31.9 Katie Berlin: She definitely does not suffer from low self-esteem, Audrey. No. Yeah,
you've done a very good job of making sure of that. I love it. Well, I think a lot of people can relate
to that because as you know, I also have animals that can do no wrong. So... So let's just jump in.
Let's talk about Audrey's diagnosis. How long ago was she diagnosed? And what were the
circumstances? How did you feel when you found that out?

0:05:00.2 David Berlin: Yeah, so she was diagnosed, correct me if I'm wrong here, but September,
I think, of 2021. And I had had an inkling something was wrong because I clean out her litter boxes
and I've noticed an increase in urine output, and that she had been drinking a lot of water. She's
always been kind of a heavy drinker, so it wasn't that weird. But I just noticed that she was
emptying the water bowl quickly. So made an appointment at the vet. I think we were due for one
anyway. And they did all the things. So I wasn't super surprised because I had been Googling a little
bit on my own, which I know is probably not vet's favorite thing. But...

0:05:30.1 Katie Berlin: We all do it. Come on.

0:05:41.3 David Berlin: Yeah, I was doing it anyway. And so when the diagnosis came back, I
wasn't super surprised by it because it seemed like all the signs were there. But we were definitely
cought a little bit unawares. Alex was in California with their dad at the time. And so I think we just
were sort of struggling with how to navigate it. I know I was a little bit hard on myself at first
because I felt like I should have seen the signs sooner. In retrospect, I was like, oh, was she peeing
so much and drinking so much for longer? Should I have gotten her in there sooner? So yeah, it was
definitely a little bit disorienting. And I remember, I think, probably my first phone call was to you,
honestly.

0:06:22.4 Katie Berlin: Yeah. Alex, how about you? Not being home, I know you must have found
out all of this over the phone. What were you thinking?

0:06:30.0 Alexandra Bronson: Yeah, I can remember the phone call really clearly, and I didn't
know as much as Dave about what feline diabetes meant. And so for me, it was receiving the
information and I was thinking like, okay, so how do we navigate this? And then once I also went to
Google afterwards and started understanding what this meant. I started getting really upset thinking
about the discomfort that she would be in. And wasn't thinking about the discomfort and thinking
about how long do we have with her and is this a death sentence? Does this mean months? How do
we elongate her life as much as possible? And how do we ensure that she is as comfortable as
possible for as long as we can?

0:07:39.3 Katie Berlin: Yeah, and I remember when you guys got Audrey, you found her, right?
You were on vacation and she was a little pipsqueak, and she ended up having a super... For some
parts of the country anyway, it's a super weird thing. Didn't she have a warble? Like a big old larva
or whatever...

0:08:01.3 Alexandra Bronson: She had Cuterebra.

0:08:01.3 Katie Berlin: Yeah, a Cuterebra larva. This is also, another term for that is a warble. And
it was like the size of her 'cause she was so tiny, I remember that, and she was... Oh just a
bedraggled little thing. And she is just the most loved cat, so I could only imagine what you must
have been thinking then, if you were thinking maybe your time with her might be more limited or
very limited, and diabetes isn't something our families had a ton of experience with, at least not this
kind of diabetes. So I remember answering a bunch of questions, but there's also when you're at the
end of the phone, there's a lot of information we don't have and we're trying to help family members
and friends, and it's a lot. It is a lot. Did your vet team... Do you feel like they were supportive at the
time of diagnosis? Did they go through a lot of options with you? Did you feel like it was like
Charlie Brown's mom like wonwon, wonwon while your head was spinning? What was that like?

0:08:56.8 David Berlin: Yeah, so I think I took her back for the follow-up, once she'd gotten her
diagnosis, I guess they ran her blood sugar and it was pretty clear. So I took her back in and I have
to shout them out for just being awesome throughout the whole process. They gave me a multi-
page, run down of all the things to expect and think about, which was really helpful because as we
said in the moment, you're trying to take in all this information, you've read it online, and some of
the information you find is contrary to other information, and so it was really helpful to have this
resource that I could go back to. It's kind of like a pamphlet, so your cat has diabetes, right.

0:09:34.3 Katie Berlin: Right, yeah.

0:09:36.1 David Berlin: And so that was super helpful. And I would say they were super patient
with me as I had questions. The thing I appreciated most, and I'm sure we'll talk about it more, but
as they started talking about insulin delivery and blood sugar testing and monitoring, that stuff is
totally brand new. I had some comfort giving her injections before from a previous, she had
allergies and we're giving her medicine that way, so I was relatively comfortable with it, but the
thing I found most helpful was at that follow-up appointment, they had one of the technicians work
with me on giving her injections of just insulin and take her blood sugar from her ears, and we just
did it like five or 10 times, and just watching them and learning from them was extremely helpful
and took a little bit of the anxiety away from doing that.

0:10:30.6 David Berlin: She also happens to be just a very pliable, agreeable cat, and so it's like
she's a model patient when it comes to that, but just like the reps and the practice was super helpful
for me.

0:10:43.9 Katie Berlin: Yeah. And Alex you missed all of that. Right? You were away when that
was happening. Was that really hard 'cause you're like okay he got all the benefit of being this in this room and getting this information first hand and doing all the testing and trying and trial and error, and you didn't have that. Did you go back later and have that, or did Dave show you everything?

0:11:04.1 Alexandra Bronson: Dave showed me the mechanisms, but I also just say that our vet was just incredibly... Dave said, patient, which is exactly what they were. And also just really kind, and though I wasn't there in person with them, and they... I didn't necessarily encourage a lot of in-person, additional appointments because this was during the heart of COVID, they were incredibly responsive to email. And I also didn't just respond to answers but responded to how we were emotionally and inquired about that as well.

0:11:46.3 Katie Berlin: That's awesome, that's really great. I love to hear that about that team, 'cause I know they work so hard to make sure that patients are taken care of, but sometimes we're just not sure how those interactions go from our side, so I'm sure they would love to hear that too. Hopefully, maybe you could share this with them.

0:12:05.4 David Berlin: Yeah.

0:12:06.6 Katie Berlin: But was it a veterinary technician or assistant who was doing the demos with you and stuff, or was it the veterinarian?

0:12:13.8 David Berlin: The veterinarian gave me the whole spiel and then she... I think the technician came in and did all of the work.

0:12:20.6 Katie Berlin: Okay. That's pretty typical. Veterinarians talk a lot, and then the vet techs come in and do all the work.

0:12:27.3 David Berlin: Yeah honestly he was like Mozart with that syringe.

[laughter]

0:12:39.5 David Berlin: I have never seen anything like it. I had been doing the shots the wrong way, or I guess I never really learned, and so I had been kind of holding it with two fingers and pushing with my thumb, and he taught me I don't hold it with the thumb and the pointer finger, and then to push it with one of my back fingers, which was not something I considered that worked like a ton better and never would have occurred to me, so little things like that were super helpful. And I should say that I had done, I think every single administration of the previous injections. Because Alex has a fear of needles. So then I had to teach Alex and Alex ended up being much better at it than I did, so that was kind of an unsuspected, but...

0:13:17.5 Katie Berlin: Yeah Alex, tell us about that fear of needles, how bad was your fear of needles exactly?

0:13:23.9 Alexandra Bronson: Oh, it's bad. When I go in for my own shots, I apologize to the nurses ahead of time, telling them that the tears are me not them and that they are inevitable no matter how good they are. And I think that when we learned that Audrey had diabetes and she needed to have injections twice a day, it was a little bit different than what our previous
circumstance was, where we treated her with an allergy medicine. That was... It was one of many things that we had tried. It wasn't as frequent. And I think that if I were to give a hypothesis of what changed for me, this was what Audrey needed in order to continue living. And so there was just a shift for me of, okay, I just need to figure out how to do this. And as soon as I was able to administer the first shot and she didn't even flinch, I think that it allowed me to just do this rhythmically moving forward.

0:14:41.9 Katie Berlin: I love that. And you're still afraid of needles for yourself, I take it.

0:14:46.8 Alexandra Bronson: Sure I am.

0:14:47.6 Katie Berlin: Yeah, so I love that. That's so typical, right? It's like, we'll pay for massages for our animals, but not go ourselves and we're gonna just buck up and give that injection if that's what needs to be done, but God forbid, someone coming to us with a needle, I think that's really great and really exemplifies how much you love her. So initially you were nervous about it, but you kind of like... I mean, you're educators, you are problem solvers, you're faced with fires to put out all day, so I would imagine that's sort of the same mindset you brought to this, is like, this is a problem, we're gonna solve it. What was the learning curve like? Did you feel comfortable, either of you, both of you, within a few days? Did it take weeks? Was it just kind of like a gradual shift until you realized you weren't nervous or anything anymore?

0:15:39.5 Alexandra Bronson: For me, the nerves of actually administering the shot dissipated very quickly, and there were like two things that created anxiety. It took a little while to figure out the rhythm of getting her the blood for her glucose curves and the glucose readings, we were able to get over that hump, and then I was able to navigate it really seamlessly, but the other thing that was difficult was just navigating the dosage. I think Dave can speak a little bit more to this, but the administering too much insulin is incredibly scary, and we worked really closely with our vet to understand, based on her glucose curves, how much insulin to give her, but that process was, I think, the most anxiety-producing point for us.

0:16:37.2 Katie Berlin: Yeah, that makes sense, for sure. It's rather than the physical motions, the judgment call about what her dosage needed to be based on what you were seeing.

0:16:48.2 David Berlin: Yeah, that resonates with me as well. I was really scared to give her too much insulin. I'd read a lot about that. It was all over in the notes. It's like if you're not sure, don't do it.

0:16:58.0 Katie Berlin: Yeah, you got that message loud and clear.

0:17:00.3 David Berlin: Totally. And we had the urine test strips that we were using and worried because she had really high blood sugar, glucose, and so we kept increasing the dosage and then we were like, alright, we'll check in two weeks, and then we would check it and it would be like super high still, or like one day it would sort of slingshot down to low, and I remember something you had said early on, which is that cats don't really tell you by their actions where they're at, and so I felt like we were just having to monitor things on a weekly or even daily basis of like should we do one and a half? And we're talking about such astronomically small units, it's so ridiculous, like the difference between 1.5 and one unit is like half a millimeter, and if you give an extra half millimeter and you could about tank their blood sugar, and so that stuff I think was really way harder than the
actual mechanics of doing it. We got comfortable using the... Giving the shots pretty early, and it turns out that Alex is a gifted blood from your drawer.

0:18:09.6 Katie Berlin: Who would have known?

0:18:11.9 David Berlin: Not me. Not me. But it bothered me so much to see the cat blood, it just bothers me, 'cause I don't want her to be in pain, even though she really didn't seem to care that much. And Alex is just a wizard at it. So that stuff was fine, but yeah, it was just like the constant sort of up and down and judgment calls and things.

0:18:33.0 Katie Berlin: That's really interesting. I've given the diabetes talk so many times, I could not count the number of times, and usually, I give the talk and then I bug out and the technician does the work of showing people how to do the injections and stuff. And I worry a lot about that, but once we have that down, like the insulin administration down and the timing of when are we gonna check the blood sugar again, whether it's at the clinic or at home, then I don't know that I really have given that too much thought, that just fear that if something happens if you give too much accidentally or we make the wrong judgment call, that it could be catastrophic. And that's a little bit of an eye opener for me because I think once I felt comfortable that the client could give the insulin and could measure the blood sugar or was comfortable bringing the cat back in or whatever, then I kind of felt like, okay, we're going somewhere, but then it's almost like the real work begins and the real scary part begins because you know how much responsibility we both have in making sure that we don't do the wrong thing.

0:19:48.6 David Berlin: Yeah, I remember there was a point where we were giving, I think, one unit or the smallest of dosage, and then it did nothing, and so we bumped it up, and you know what, to this day, whether it was in my head or actual, she seemed really lethargic to me and I was like...

0:20:04.6 Katie Berlin: I remember that.

0:20:04.7 David Berlin: Yeah, and I was like, oh my god, oh I messed it up. I've done, what can we do, should we rub the honey in her gums or whatever of all the things, and in the end, she was fine, but yeah, you started looking for every little sign and cats are temperamental, and so you don't always get a clear vision of what's going on.

0:20:26.8 Katie Berlin: That's for sure. Yeah, they wouldn't wanna make it easy on you, and cats are luckily very resilient with these blood sugar fluctuations, you know what I mean, especially if the blood sugar is lower than it was, and that's a start and if it's not dropping super, super low, they usually can tolerate it pretty well, it seems like, but you obviously don't know where that line is, so I could see that being really scary, and you guys elected, did you elect to do the blood sugar curves at home, or is that the only option that your vet gave you?

0:20:57.2 David Berlin: They gave us the option of bringing her in and they would do it over 12 hours, but it seemed like something that we could do at home if we could figure out which we did, and obviously it's cheaper and easier to do it that way. So...

0:21:10.3 Katie Berlin: Yeah, probably empowering too, to know that you could check her blood sugar any time too.
0:21:17.3 David Berlin: Yeah, for sure.

0:21:18.3 Katie Berlin: Yeah. Did they ever want her to come back in for a curve and you decided not to do it, or they were pretty happy with you doing it at home, as long as you're comfortable?

0:21:30.1 David Berlin: Yeah, they were happy with us doing it at home. We would send them numbers via email, maybe every two weeks, three weeks, and adjust, we would adjust the dosage from there.

0:21:39.4 Katie Berlin: That's cool if they had a lot of confidence in you. And we do rely a lot on the pet owners when it comes to diabetes management, whether or not you're bringing them in for curves, just observation and the insulin administration and measuring it right and feeding and all the stuff, there's so much pressure on you guys, so... Kudos for getting over the needle phobia and for Alex now could get a job as a lab animal technician, drawing blood from very tiny veins, which I could not, so... Kudos on that, for sure. So, speaking frankly, there is a question that kind of hovers in the air over these diabetes diagnoses in veterinary medicine when we get them, and that's the question of euthanasia because as I'm sure you're aware, it costs a lot to treat an animal with diabetes, especially if you can't do the stuff at home and you have to keep bringing them in all the time but insulin costs money and follow-up appointments cost money, complications, whatnot. And so that could be one factor, and then there are a lot of people that maybe wouldn't have the ability that you've had to actually just tackle this problem and get the testing and insulin injections done.

0:22:58.3 Katie Berlin: So I hope it's okay for me to ask, was euthanasia ever discussed in that appointment or in the days following? Did you guys talk about it together? Is that something that the vet team brought up or sort of skirted around?

0:23:14.4 David Berlin: Yeah, the vet never brought it up in the initial meeting, I think, obviously, they were just giving us the treatment options and seeing how we responded to that, and I think I was like, "Sure yeah, obviously, we wanna work on it." I think Alex said, "As long as her quality of life is good, we would wanna do the treatment." We do have pet insurance, shout out pet insurance...

0:23:36.8 Katie Berlin: Woohoo! Yeah.

0:23:38.0 David Berlin: That's good. So we were lucky enough to have the means to pay the money, and also jobs that are flexible enough that we could be around to do the injections when needed and the test curves, and I think if we were traveling all the time where we didn't have the means to do it if it was something that we would have had to discuss, but fortunately, we also have the world's best cat sitter who I thought had to do injections as well, and so we were able to leave town for a few days at a time and that was totally fine. So all those things were working in our favor. I will say that she developed pretty severe neuropathy in her back legs from the diabetes, so she was losing the ability to jump and she'd scrabble around when she was walking down the hallway and stuff like that.

0:24:27.0 David Berlin: It got pretty serious and I think... I don't think we ever directly discussed it, but in my brain, I was thinking like if this is just gonna get worse and worse, at what point are you like, well, this quality of life is not good anymore. So that was definitely something I was thinking about. I don't think we had a serious conversation about making that decision, but that was
the thing, not the diabetes itself, but her inability to move like a cat, that was, I think, but I'm glad we had [0:24:57.1] ____ diagnosed the diabetes.

0:25:00.1 Alexandra Bronson: I never thought about euthanasia. I, similarly to Dave, was really concerned and it was just really, really sad to see her neuropathy. I've never seen anything like that before. And she can't communicate to us, so you couldn't ask her, "How are you feeling? Like how are you with this?" But it was clear that she was not only uncomfortable because it was apparent through her legs, but she also wasn't doing the things that she loved to do, she wasn't necessarily as snuggly and cuddly with us as she previously was. In my mind, I was thinking like, can we get her one of those wheelee situations that dogs have, or is she just gonna live on a tuffet for the rest of her life? So I was thinking about what are the alternatives gonna look like for her to be as comfortable as possible.

0:26:03.6 Katie Berlin: And she couldn't jump on desks and shove ballpoint pens off in her age, which I do imagine was quite frustrating for her. Audrey has a thing about ballpoint pens for some reason, like she...

0:26:17.4 Alexandra Bronson: Specifically the caps.

0:26:20.4 David Berlin: Yeah, the cap sometimes.

0:26:20.6 Katie Berlin: Right? And it's like if they're on the table with her, she is just so offended by that.

0:26:24.5 David Berlin: Yeah.

0:26:25.1 Katie Berlin: I just love that. Cats are the best. Well, I'm glad that it didn't come to that for you, and that neuropathy is definitely really disturbing to watch whether it's caused by diabetes or something else, especially when you know it may not totally reverse even if the treatment is working. And I can totally understand you asking that question because you're very focused on her and not you, and not the inconvenience to you, you just wouldn't want her to have a life that she didn't love. I can't imagine Audrey not being cuddly with you, so... I have a lot of pictures of my phone for you listeners, I have a lot of pictures of my cell phone, like David, Alex, like cats in their face and stuff, there's a lot... Dave is allergic, by the way.

0:27:11.7 David Berlin: Yeah. So is Alex.

0:27:15.0 Alexandra Bronson: Certainly.

0:27:15.2 Katie Berlin: Great. Yeah, so that's going well. So obviously, you are at one end of the spectrum of cat people, you probably would have done anything to make sure that you are doing what you could at the beginning, but if it didn't work, that would have been a separate question. But there are so many people that don't have the experience that you did. And so I wanna talk about some of the factors that made your experience what it was, and also some of the ways that we could make this easier for people who aren't in your exact circumstances, what do you... You've given your vet team some shout-outs already, which is great, it sounds they were super patient with you, very informative, what else do you think went really well about your experience with them and during the follow-up afterwards when you were trying to get her regulated?
David Berlin: Yeah, I'd say as the neuropathy got worse, they were really responsive to that, and they referred us to specialists, we were having trouble getting the dosage right and affecting her blood sugar, like I said, it boomeranged too high or too low, mostly too high.

Katie Berlin: It was an internist, Dave, you sent it to?

David Berlin: Yeah. And surprisingly in a city like Brooklyn, you think there would be more availability for that, but there really wasn't. So Alex had to take her into Manhattan. Again, you'd think with all the people and pets, but it was quite challenging to get an appointment and all that, and so they were really helpful in just being responsive. I would say that's the number one thing. It's like I knew that if I emailed them, I knew they would email me back the next day, or failing that, the day after and that it's super helpful because when stuff happens to your pet, you think it's an emergency or might be an emergency, and they were helpful in parsing whether or not something was an emergency or not, and what to do about it, and what the signs were.

Katie Berlin: She's like, "Oh man."

David Berlin: Yeah, I can [0:29:11.2]____. Yeah.

Katie Berlin: So is email your preferred way to communicate with them or is that their preferred way to deal with communications?

David Berlin: I think it's always the easiest way for our vet, in particular, I think you call them and they're probably in an appointment or something like that, and so I think it's the easiest thing for me is just to, especially at work, is to drop them an email and then if they... Sometimes they'll call me back in response to the email, and that's totally fine, 'cause I know that their schedule is probably more jammed up during the day than almost anybody.

Katie Berlin: Yeah, and you guys don't always have the most flexibility to duck out with whatever you're doing in the middle of the day to take a call, so that's great. And unless it's an emergency email seems like a great way to talk about diabetes 'cause there's so much back and forth, and then you have it in writing also which is helpful for both sides.

David Berlin: So I can't tell you how many times I referred back to the last glucose curve, is it one point five or one unit or things like that. So that was very helpful to have it written down. Alex, you should talk about your book, your diabetes, Audrey journal.

Alexandra Bronson: I started writing down her glucose curves so that we could track them and look at them, and I'm a paper person, and so just picked up a journal and then started just writing all of the notes and changes that had happened, so throughout when we've been talking and also, in preparation for today, right now, I looked at the notes that we took in it, it was really helpful to have in one place, not just the curves, but all the changes, so I have... When we adjust the doses, I had any normalities, any abnormalities that we saw... So that we could help tell the story to the vet and help understand as we were navigating this disease.

Katie Berlin: And you found that when you followed up with all that information, they
were patient with you and you didn't feel like they were like, "Ugh, there she's with their journal again."

0:31:31.6 Alexandra Bronson: No, and I...

0:31:33.0 Katie Berlin: That's good. That's really important.

0:31:34.0 Alexandra Bronson: I would show it proudly to them. Yeah, I can't say enough how thoughtful, you said before... What were some of the things that was helpful? It was really helpful for me to talk about my feelings, and I think for David as well, for me to process how I was feeling in navigating this so that I could make sure that I was monitoring myself and also giving the respect to what I was going through. I remember really clearly the day that David referenced earlier of when we gave her insulin and then she was really lethargic afterwards, and just kind of recognizing these human emotions was a really important part of the process for me.

0:32:35.5 Katie Berlin: I'm really glad you said that. And that's one of the reasons we're having this conversation in this way, is that I want to make sure that I get that reminder and that my colleagues get the reminder that there are more people involved than just the patient, and it's not just about logistically getting you guys to give insulin. It's about the feelings that come along with having a pet you love so much diagnosed with a chronic disease that has an uncertain future. And I completely understand that. I mean being in that situation myself with my own animals is very scary, but I think sometimes it's very hard to translate that into understanding that clients need support too. And on a busy day, I know I've been guilty of being like, oh my God, she's emailing me again about this glucose curve, like I don't know what to do, and the client seemed like they were just being overly concerned or not taking my advice and doing the next thing. And it was probably just that they were really, really nervous or feeling emotions, they didn't have a place to put.

0:33:53.6 Katie Berlin: And I was the place they were trying to put them, and I don't think I was always receptive to that. And for all the times that that may have happened, you know, I'm so sorry, and I'm glad that you had that support with each other and with your vet team through this. So what about things that could have been either done better, and this is not to throw your vet team under the bus, this is more... What do you think you would do differently next time? What do you think could have been done differently with your vet experiences or what would make life easier for somebody in your situation? That's a tough question, sorry.

0:34:33.4 David Berlin: Yeah.

0:34:33.6 Katie Berlin: It's hard hitting journalism.

0:34:35.7 David Berlin: Yeah. I mean... Yeah, they did such a good job so it's hard for me to even think about, "Oh I wish they had done this and that." I think the knowledge gap when you're coming into it is really large, and so I would have loved to know what a great glucose curve looks like, you know which is something that I think they were hesitant to provide us, which I understand. And I understand that all cats are different. And you don't wanna necessarily give targets that aren't gonna be correct, but I think I would get the numbers and I really didn't know what to do with them other than send them to the vet. And I was like, okay well, it's 275, which is better than it was before. It was 490 before, it was like, great but that still seems high, what do I do? We turned in a glucose
We missed one of them, and they were like you need to do the whole thing again. Which again, I understand, and I would never wanna put a professional doctor in the position of having to judge with incomplete information and then hold them accountable if it wasn't correct, but it was a little bit deflating 'cause it's like, oh my gosh, we're just like, we just did this for 12 hours and drew blood and you know there's this... It's annoying, right?

0:35:49.4 Katie Berlin: Yeah.

0:35:50.2 David Berlin: I think maybe sometimes just knowing a little bit more what to expect or what is the red flashing light if this doesn't work, or when should you panic, I guess.

0:36:03.0 Katie Berlin: Yeah.

0:36:03.1 David Berlin: And those are the little things. Obviously, there are parts of the diabetes treatment process that are a little bit annoying and time-consuming, and so those are things that I'd like to make easier, but I realize with the situation we had, I think they did a great job.

0:36:21.6 Katie Berlin: Yeah, Alex, how about you?

0:36:24.8 Alexandra Bronson: Dave named it really, really well. We were thinking about this question earlier and we jokingly, not jokingly named, that one awesome change would be on the actual mechanics of the blood glucose indicator. I was able to get the blood from Audrey without her actually leaving my lap. But then when it finishes its reading, it beeps really loudly, and then she would get really startled and jump off. And so she was afraid. And so if there's any operative, anybody listening is in charge of decreasing or eliminating the beep would be awesome.

0:37:09.0 Katie Berlin: How does... I've never heard anyone say that before, but that makes perfect sense, like why... Were you using a glucometer that was designed for animals?

0:37:18.3 David Berlin: Mm-hmm.

0:37:18.7 Katie Berlin: Yeah.

0:37:19.3 Alexandra Bronson: Mm-hmm.

0:37:19.8 David Berlin: And it's the one that sits right in their ears, so you have to have the little tab in it touching their ear to get the thing. And then it beeps loudly by definition, right in their ear.

0:37:29.4 Katie Berlin: Right.

0:37:30.2 David Berlin: And that was the thing that drove her crazy. It was so stupid.

0:37:32.1 Katie Berlin: That is dumb. It's not like you're not looking at it. So you don't need the beep to tell you that it's done like you're staring at it 'cause you can't wait to get this thing out of your cats ear. Yeah. Wow. Okay, so I think that is a really good piece of feedback, and I hope someone in charge of the mechanics either of that machine or of a machine they're thinking about designing, will remember that for the future, a silent glucometer for animal use. I think that's a
fantastic idea. Yeah, so that's really useful. And then Dave, what you said about knowing what normal is. Dave, first of all, me too, same. I would like to know what normal looks like for diabetes management because it is so hard. Basically, the diabetes management guidelines that we have is the closest thing we can come to how to treat diabetes, but it is such a gray area. The whole disease is a gray area, is this too high or too low. It depends on the number before it and the number after it, and the number in three hours, and how long they've been diabetic, and what did they eat that day, and is the pet owner sticking to the diet and it's so...

0:38:41.4 Katie Berlin: It's so tricky to make those judgment calls. And I think that speaks to what I was saying before, how sometimes I don't think I was aware of the emotional component of this regulation period, which sometimes can be the entire lifetime of the pet because regulation is just really hard. And I think a lot of the reason why sometimes I wasn't as sympathetic to that is because I was really stressed out on my end trying to make decisions. Veterinarians and veterinary teams make decisions 300 billion times a day, just like teachers do. And all of the decisions matter could affect someone's life in a big way and I think I just... I remember thinking like, "I just, I hope this is the right decision," every single time.

0:39:30.5 Katie Berlin: It was rarely obvious, but I think we could have done a better job of telling our clients what to expect and what to look for and what ultimately what our goal was, even if not in numbers. If we were saying like, "Okay, if we get to this point, at least she's not a danger of needing to be hospitalized." Blood sugar of 600, blood sugar of 300, they're both high. But 300, you're probably gonna not have the catastrophic effect if that's the highest it gets. Stuff like that, so I think that's really useful too. I was also wondering, so a couple of the changes, the updates that we made to the diabetes guidelines, one of them is about continuous glucose monitoring. And it doesn't necessarily say, "This is the right thing to do or this is not the right thing to do," but it's talking...

0:40:25.6 Katie Berlin: It's just giving a little bit of a blurb about it because it is something that we're gonna be seeing more and more of in veterinary medicine. I know a lot of people are using it already, and that's where you have the little sensor that sticks on your skin. So it's actually a human product, and it comes with an applicator and you kinda pop it onto your skin and it has this very tiny little flexible needle that helps it go into your skin. And then the needle gets pulled out and it just has a little sensor that sticks underneath your skin, and it measures what the interstitial glucose is, so the glucose in the tissue there under your skin. And it just sits on there and it can stay for 10-14 days depending on the type.

0:41:07.2 Katie Berlin: And then you can actually turn your smartphone with an app into a reader. Like scan it, and then it gives you data for what that glucose is. It's pretty cool, but it's not something everybody is using now, and so I was wondering if that was something your vet team had ever talked to you about, or if you've ever heard about that other than talking to me since then.

0:41:29.7 David Berlin: I can't remember if they brought it up. I'm pretty sure I heard about it from you and not from them, but I think if Audrey had been less compliant.

0:41:42.7 Katie Berlin: Yes, for instance, say a Henry.

0:41:43.9 David Berlin: Yeah, yeah. I think if she had made the process more difficult because she wasn't on board, or if Alex hadn't been so freaking good at taking blood from ears, I think that would... Something like that would be really helpful like in the same way it helpful for humans,
right? I remember growing up watching people sticking themselves every single day, even multiple
times a day on their finger, and now they have mostly built-in insulin monitors. And I think
anything you can do for that with cats would also be helpful in the sense that it does probably take a
lot of the guesswork at it. You could take their readings much more easily. So yeah, I think there's
lots of cases where I could see that being extremely helpful because I do think that the glucose
curve is the hardest part. I think it's harder than the injections, and that would give good data, right?

0:42:37.3 Katie Berlin: Yeah, yeah, it would. It's not perfect. She'd have to go into the vet and
have this thing applied, so they have to shave a spot and then clean it with alcohol. Most cats
already are not loving that part, and then you put the sensor against the skin. You have to kinda pop
it against the skin, so a lot of them don't love that either, but it's so quick and it doesn't seem like it's
painful. And then you have to get it to stay on there, which usually means a little bit of skin glue,
and so then if they don't scratch it off, you have to take it off when it's time to put a new one on or
when you don't want it on anymore.

0:43:12.5 Katie Berlin: So that's not perfect either, but that's the vet team doing all of that and not
you, which is a key difference for a lot of people. I think they just don't wanna be the bad guy or
can't bring themselves to do that or the cat doesn't really allow it at home. So Alex, what do you...
Like if you had... If the needle phobia had been prohibitive, and Dave was the only one who could
stick sharp things into Audrey, how do you think this would have gone differently? Do you think
you would have had to rely on something like that or trek her back into the vet more?

0:43:49.4 Alexandra Bronson: It's a great question. Previously, when we did... When David had to
administer allergy medicines, I just tried to take over more of the chores as a means to say thank
you. But I think that if it was... If all of the duties relied on just one person, and then if David had to
be away, it would have relied on me, I certainly would have looked into alternatives.

0:44:25.0 Katie Berlin: Yeah, there's also the other update to the guidelines has to do with an
FDA-approved insulin for cats and dogs, and it's actually approved to give once a day. And I know
that the insulin you were giving, you were doing twice a day, right? Do you feel like that would
have helped you to have a once-a-day option? At least if Alex had been out of commission.

0:44:51.3 Alexandra Bronson: Yeah. Absolutely, and not that we were planning to go away a lot
because this is also all during COVID, but Dave and I certainly couldn't even think about doing a
weekend away somewhere because it would've... We couldn't be gone in the morning and the
evening. And so having a once-a-day administration would definitely make... Have made our lives
easier.

0:45:19.3 Katie Berlin: Yeah, well, I'm glad that it didn't come to any of that where you needed to
change up the plan or where you were in a position where you couldn't give her the treatment she
needed. You guys are rockstars, you really just figured it out, and she also did not make it super
hard on you compared to some cats, which is a blessing always. Thank you, Audrey. We'll hope that
Henry never gets diabetes. But at least you know there are some different options for managements
that if you ever had to go through this again, you could maybe take a slightly different approach if
you had to do it with a cat who wasn't as pliable as Audrey. How's Audrey doing now?

0:46:03.0 Alexandra Bronson: She's...
0:46:02.9 David Berlin: So good.

0:46:03.0 Alexandra Bronson: She's lounging on a chair in the sun. She's not... I would say not even just back to normal, I think that she's even sweeter now, and Dave might disagree with me, but she is such a... I was talking to my mom about her the other day, and if David or I mistakenly step on Henry's... Henry is our other cat, he's gotten a lot of shade on this podcast. Rightfully so, but he's also a really sweet cat. But has some multiple personalities, and if we mistakenly step on his tail, he will respond with some agitation. And Audrey just gets right in between us and Henry, not only just in that moment, but will sit between us to ensure that Henry cannot attack us or harm us in any way, and...

0:47:07.8 Katie Berlin: Oh my gosh.

0:47:09.4 Alexandra Bronson: It is so... It's like she knows how much we have cared for her and how much we care about her, and her physicality is back to 100%, and she is just so sweet.

0:47:29.8 Katie Berlin: And she's in remission now, right? You're not having to give insulin now?

0:47:32.1 Alexandra Bronson: Yes.

0:47:33.4 David Berlin: Yeah, so in late March, we started to notice the glucose declining on... In the test, and the other thing I noticed right away is that we have... We got a Breeze litter box, which has the pads on the bottom, so it was actually really... And she, for some reason, Henry does not use it, which was super helpful.

0:47:53.4 Katie Berlin: That is super helpful, yeah.

0:47:55.3 David Berlin: Yeah. And so it was very visual how quickly her level of urination went down. So those two things combined, we started to test her a little bit more frequently because I didn't... Again, I was petrified to give her too much insulin if her blood sugar was low, and yeah, it just reached a point where within a week, we haven't given her insulin and she was in the low hundreds usually. And yeah, the vet declared her in remission at the end of March, so I was really impressed that her neuropathy went away in a matter of weeks. And yeah, she's jumping all over the place and she's the best. So, yeah.

0:48:34.1 Katie Berlin: Love to hear that. Yeah. Your cats... Maybe your cats should write a pamphlet.

0:48:41.9 David Berlin: Totally.

0:48:42.0 Katie Berlin: Like, how to be a good patient, and then how to stay out of the special litter box that's supposed to detect the glucose in the urine, that would be cool.

0:48:48.9 David Berlin: I would love to see them write those things. My idea for her autobiography title was, "Oh My God, A Cat Wrote A Book." But I can understand why that's not the best title.

0:48:57.7 Alexandra Bronson: Not magic mouse?
Katie Berlin: We are a book family, so if any cat's gonna write a book, it might be one of ours.

David Berlin: Totally.

Katie Berlin: My cat's definitely not writing a book, he's not an intellectual type, so. But, I love that, and I'm so glad she's doing well, and that just speaks to how committed you guys are, and she obviously knows that she's completely indulged and spoiled, and that's exactly how it should be. And I really appreciate you telling us the things that went really well for you, and also acknowledging that it's not gonna be like this for everybody. But even for your experience, which I would say overall, anxiety aside, needle phobia aside, has really been the ideal progression of clients and a cat with... Dealing with diabetes. You're the test case, it's like a perfect situation. However, it still was really, really hard for you, and it's still a matter of daily life that you think about and you're like, "Is she gonna need to go on insulin again? We have to watch her all the time and make sure." And you still have that guilt at the beginning, even though she's had a wonderful life with you so far and you've done everything to make her life fantastic and comfortable.

Katie Berlin: And this isn't something that you could have seen coming. And it's like, I think for her, being the easiest case, I'm making air quotes, and you still having to navigate all of that is actually a really good thing for people to hear and for me to hear, because it doesn't... It means in the best-case scenario, it's still a really hard thing.

David Berlin: Totally, yeah. It was a lot of work, but we're... We feel really lucky about the way it's progressed. So yeah, for sure.

Katie Berlin: Yeah, that's good. And Alex, I have this visual, I feel like from a story Dave told me of you in a fetal position when it came to getting a booster of some kind of vaccination, possibly sobbing. And I've... I... At most, props for being that person and also being this person who could make blood materialize out of a cat's ear, seemingly by magic.

Alexandra Bronson: Appreciate you, I was on the ground with a stuffed animal that the nurse had given me while I heard her say to Dave, "Oh, you're strong."

[laughter]

Katie Berlin: I wasn't gonna let us get away with not telling that story.

Alexandra Bronson: I appreciate you both.

Katie Berlin: Love you. Well, thank you both so much, I really... I do appreciate this, and I think focusing on diabetes as a common disease, but never an easy one is always a good thing to do, so thanks for helping us take a few minutes to do that, and I'm so glad Audrey is doing well.

David Berlin: Yeah, you got it, thanks for having us.

Alexandra Bronson: Thank you so much, Katie.
0:51:56.1 Katie Berlin: Yeah, and I think Audrey's headshot might go on the thumbnail for this episode, instead of yours. Sorry guys.

0:52:02.6 Katie Berlin: No, that's the right...

0:52:03.1 Alexandra Bronson: We have probably a thousand pictures.

0:52:05.6 Katie Berlin: Yeah, she's very photogenic. Alright, well thank you so much, and thanks to our friends at Boehringer Ingelheim for sponsoring this episode and for being such a generous supporter of the guidelines and of AAHA in general. And also thanks to everybody for listening and for taking a minute to think about what it's like across the exam table. We'll have more conversations like this if you like it, so please let me know what you think at podcast@aaha.org, and we'll catch you next time on central line.