

Central Line: The AAHA Podcast

Episode: Gems from the Guidelines: Addressing Vaccination Objections

Guest: John Ellis, DVM, PhD, DACVP, DACVM

0:00:04.4 Katie Berlin: Hi, welcome back to Central Line. I'm your host, Dr. Katie Berlin and we have a Gems from the Guidelines episode today, where we're gonna be talking about a much anticipated release of a brand new guideline, the 2022 AAHA Canine Vaccination Guidelines are out, and we're very excited about that. These are super important guidelines, and so we definitely want to spend some time talking about them. But the guest that we have here today was one of the distinguished task force members for these guidelines. Dr. John Ellis, welcome to Central Line.

0:00:39.1 John Ellis: Thank you.

0:00:40.8 Katie Berlin: It's great to have you. Before we get started, would you mind giving us a little bit of background on who you are, what you've done to be sitting here talking to me today about canine vaccinations.

0:00:51.5 John Ellis: Well, I'll try to keep it shorter than War And Peace. I started out growing up in the Chicago suburbs wanting to be a small animal veterinarian since I can remember, and of course, I didn't end up doing anything like that, I guess, so. And the cosmic justice really started when I got to vet school, and my two least favorite courses, I think were Virology and Immunology. And that's what I ended up doing for most of my career. And I feel privileged and lucky to have been in academia, it's been just a fascinating way to spend time and contribute to the profession, and I've done a lot of different things, it's a great profession for, of course, as many of you realize for people with ADD, I can't think of a better profession to have than to jump around species and diseases and so it's been a lot of fun. But I guess to bring it back to the point, one of my main interests or focuses has been respiratory disease and how to protect against respiratory disease. So I guess that's my most relevant contribution to the guidelines.

0:01:58.0 Katie Berlin: Well, it's wonderful to have you. And as we were saying just before we started recording, I think it really is helpful and a good thing to hear about people who said, "Oh, I wanna be a vet when I grow up," and then they did, they found a way to do it that wasn't necessarily the textbook way, they didn't just say, "There's only one way to be a vet, and that's the way I'm gonna take." You found a way to maximize your strengths and really get deep into some areas that aren't traditional clinical practice, and I think that's really neat, and we need you for...

0:02:33.7 John Ellis: Well, the great thing about a veterinary degree, and it's become a cliché, is it does give a person so many different opportunities...

0:02:38.3 Katie Berlin: It does.

0:02:42.1 John Ellis: To explore different... Totally different aspects of the profession.

0:02:45.9 Katie Berlin: Yeah, and as I know from experience, it is easy to forget that when you're in clinical practice and you feel like... For many of us there's kind of a moment where we think is this all there is, and for some of us, that is a fantastic life to build sustainably for a long time, and for others it isn't, and there are lots of other directions to go with a DVM degree or VMD degree.

And so, that's very cool, and we're thrilled to have you because these guidelines are packed and they're a great update to the last canine vaccination guidelines, and today we are gonna be talking about some, I called it myth-busting, but we're not really busting myths ourselves, we're thinking about what happens when clients come in having digested some of the myths about vaccines that they found on the Internet or on the TV or whatever, or from their cousin, cousins, mother's aunt.

[chuckle]

0:03:43.4 Katie Berlin: And we address these every single day in general practice, it's like you sometimes feel like you're a tape recorder playing over and over again, and so we wanted to talk about how we can address some of those. But before we do, one last thing, I always like to ask a personal question when people come on, because I feel like we get to know them right away a little bit better, so I was wondering if you had a billboard that the entire veterinary profession could see on their way to work everyday, what would it say?

0:04:08.3 John Ellis: Yeah, well, I think I'd actually steal something from one of my MD friend sent me which was a t-shirt that said, "Vaccine Causes Adults," and I would change that to say, "Vaccine Causes Adult Dogs and Cats." And it'd have a...

0:04:21.9 Katie Berlin: There we go.

0:04:22.2 John Ellis: A picture of an adult dog romping with its owner and a cat sleeping on its owner's chest, reading a book, that sort of thing, and so I think people really forget that and it's a beautiful concept.

0:04:34.9 Katie Berlin: It really is beautiful. I feel like vaccines really get kind of the raw deal, because we think of them as just being sort of routine and humdrum, and they're really just these... As we've discovered in the last couple of years, they're these amazing things that take so much work to develop, and then we just... Sorta take them for granted, especially if they've been around for a long time, as some of our canine vaccinations have been. But they're really little miracles and really, I'm glad that we get to spend a little bit of time focusing on them because they are so small and so important, and one of the things that I found in practice was that when I was in the exam room, sometimes I would just be so tired. Like I would just say, I don't know if I really wanna have this debate today about whether the lion vaccine is gonna cause a problem or whether Lepto is really necessary for your dog, I just, maybe just this once I'll take it easy and just not have this conversation, but for that one dog...

0:05:38.7 John Ellis: Well, thank you for reminding of that. I like to tell people that the thing I'm proudest of is I'm just about ready to retire and I've only had a real job that being in practice for one year, you keep reminding me why I made that decision. Thank you.

0:05:52.1 Katie Berlin: Yeah, that conversation fatigue, like the same five conversations over and over about parasite prevention and vaccinations, whatever, it does get a little bit old, but for the dog that's in the room with you that day and the client that's looking at you for whom that dog is everything, that conversation is extremely important, and it's so hard to keep that motivation some time, but that billboard would be a good reminder that you could be helping that puppy in that room looking at you that day to grow up to be an adult dog because of that conversation. That's pretty cool.

0:06:26.0 Katie Berlin: That's a lot of responsibility, but we have these great tools. So I think that's one of the reasons why AAHA's vaccine guidelines are usually the most frequently referenced online of all of our guidelines, whenever we look at the numbers, that tends to be true because we deal with these questions and concerns from clients every single day, they're common, but they're certainly not always simple, and I was hoping that we could tackle... What I was thinking of is the top three client objections I could think of from my time in practice. So... For those of you who are listening, if you haven't checked out the new guidelines, please do. They are live at aaha.org/canine-vaccinations with an S at the end, and there's lots of cool stuff on there. There are resources for your team, there's a cool infographic vaccine calculator, all that good stuff, and the full manuscript to the guidelines. So that being said, are you okay if we jump in?

0:07:27.7 John Ellis: Sure. A captive audience of one.

0:07:31.2 Katie Berlin: Yeah. [laughter] Well, hopefully there's more than one person listening, but I'm not gonna place bets on numbers. So okay, first one I can think of is, clients come in and they're like, "Well, when was the last time you treated a case of distemper? Aren't these diseases really rare now? Why do I need to vaccinate my dog?" How would you suggest that we get into that by being educational and empathetic without being dismissive?

0:07:57.4 John Ellis: Well, I'm sorry about the last clause there, but I... Yeah, this is one of my favorites. And I guess for those of you in the audience that are interested in music, or pop music, or even retro music fans, or Joni Mitchell, who some of you may know, actually from Saskatoon, wrote a song called "The Big Yellow Taxi," and one of the... Part of that libretto was, "You don't know what you got till it's gone." So I think like virtually many, if not all things in life, are best appreciated in their absence, and so when you... And this experiment has been done repeatedly over history, including to, and in current times. Just stop vaccinating, and you'll appreciate what vaccines do, and so that's the ironic sort of thing. Again, admittedly, most people in the general public don't think about this, because they don't think a lot about vaccines and medicine most of the time, but the reason why we don't see things, is because... Infectious diseases is because of vaccination. And essentially, and again that... To prove that to oneself, all you have to do is, I'm not recommending this experiment, but stop vaccinating your children, your pets, and none of these viruses, or bacteria have gone away. Only one really in history has been eradicated as far as we know, smallpox, and it's interesting that now its cousin monkeypox is becoming a problem and there's concern about vaccination for that, of course, but so...

0:09:28.8 John Ellis: Yeah, again, anyone who has dealt with a Humane Society, or a shelter knows that those diseases that are easily preventable by vaccinations, and let's just focus on dogs, the killers of dogs, parvo and distemper haven't gone away. And they're really all over the place. In places where dogs are co-mingled and where there's a low vaccination prevalence. And so the other part of that, that a lot of people don't think about, and it was certainly raised in all the discussion around COVID vaccines, is herd immunity. And so the reason why we wanna get a lot of animals vaccinated even though an owner only has one, or many, or several, is because that is gonna be the way that we maintain so-called herd immunity and prevent, or reduce the chances for transmission of common agents.

0:10:25.5 Katie Berlin: Yeah, sometimes clients don't necessarily wanna hear the hard science. But what you're talking about now, is really common knowledge. The pandemic really highlighted a lot

of the things that we've been trying to emphasize in the exam room with clients over and over for so long, and they've been able to see them sort of develop in real time, not just a new disease with a vaccine that's changed life for us so dramatically, but also now the emergence of monkeypox as a problem, and now they found polio in the waste water in New York?

0:11:04.9 John Ellis: Well, yeah. I was just gonna mention that. One of my earliest memories of childhood is, again in the Chicago suburbs, we went to swimming, public swimming pools every summer, we looked forward to it. And I can remember my mother being hysterical about us going. And that was right at the time, I'm really that old, that when polio vaccines were just being applied. And being the necrophiliac that I am, I find it so interesting and entertaining when these agents, some of my favorite things are viruses, are shown to still be important, and everyone now has heard, I think, about the detection of polio in the United Kingdom and in North America, and arguably a lot of that... Well, two things. Again, it indicates that polio hasn't gone away. It's certainly been way dampened down through vaccination, but could re-emerge, and it's with the kind of anti-vaccination sentiment that is present in today's world, it's problematic.

0:12:07.2 Katie Berlin: Yeah. And it's probably safe to say that in one appointment, in one exam room, you're probably not gonna change somebody who's a absolutely crazy anti-vaxxer like zealot. You're not gonna change that person's mind with one appointment. But not talking about it to make that appointment easier, is not the solution, right? That repetition, especially with what they're seeing in the news too, could make a difference, and you have to try. That's our responsibility to try. So you can bring these things up as examples and not be accusatory, but more, "I understand you have concerns, but the reason that we're all here, is because of these concepts of herd health, herd immunity and vaccinating every individual that we can." Right?

0:13:00.3 John Ellis: Mm-hmm.

0:13:00.8 Katie Berlin: Okay. Alright, next one, reactions. So client comes in and says, "I'm worried about reactions, and I only wanna give him what's absolutely necessary." That's my favorite is when they say, "I only wanna give him what's absolutely necessary." [laughter]

0:13:15.3 John Ellis: Well, I'll start out with a quote, I guess it's originally Nietzsche's idea. And then it was... Kelly Clarkson took it on as a song, "That which doesn't kill you makes you stronger." I mean, that's relatively dramatic.

0:13:32.0 Katie Berlin: And you probably can't say that. [laughter]

0:13:32.0 John Ellis: I wouldnt recommend it as a first statement for the exam room. But it really gets into the whole reaction thing on several levels. And first of all, I think the important thing to remember is unlike in human medicine, we have less data around reactions. But there has been some really good large scale studies indicating that reaction rates in small animal medicine, including some of the so called bad actors, like Lepto vaccines, such as those that tend to be reactive, overall, that's a very low reaction rate, and arguably less than occurs in pediatric medicine. So that's one thing. I mean, it's an incredibly low rate, overall of adverse reactions. But getting back to my opening kind of quip, what, and I know, for all the veterinarians in the audience, you all learn this in immunology, especially if you've gone to veterinary school in the last two decades, I didn't learn it, 'cause all I learned in immunology was about eosinophils, because my teacher had asthma, and this was in 1975. And they hardly even knew what B and T cells were.

0:14:35.1 John Ellis: But one of the things that's become increasingly well documented is the role of the innate immune... So called innate immune response, it's the less glamorous part of the immune response and to cut to the chase without putting everyone to sleep. What people forget, is that there's a necessary bridge between the innate immune response which is essentially an inflammatory response, and the adaptive immune response, which are B and T cell responses, and without some level of inflammation, you're gonna get a very poor uptake of adaptive immunity. And so, it's obviously a balancing act. And so for instance, when I had my SARS vaccines, I had virtually no reaction at all. Now, that could be because... Who knows. But my daughter, she was quite ill. And so even though, I felt for her, but I said, that means it's working. And so, virtually all vaccines, even the subunit SARS vaccine has so called danger signals, which are molecular patterns that the innate immune system recognizes as bad. And what happens then is they secrete these soluble mediators called cytokines. And again, veterinarians will remember some of these, I'm not gonna go into the excruciating detail at this point, but, again...

0:16:00.0 Katie Berlin: We had a whole story worked out about the cytokine, to try to remember them.

0:16:02.6 John Ellis: Okay. Good.

0:16:03.3 Katie Berlin: We had a whole story we told about them.

[laughter]

0:16:05.6 John Ellis: So, yeah, and again, that's, I guess, an important thing to remind people in the context of... Again, this isn't the obviously rabid anti-vaxxers for... Who probably aren't gonna be there anyway. But for the rational people that have had their children vaccinated, what's the paediatrician tell them, he tells them, "Well, your child may have an off day, after vaccination, give it some Tylenol, or aspirin." And that's part of the response, we expect. And I think that part of communication has been left out, I think, that detail and that kinda similarity between experiences between the pediatric experience and the pet experience, I think is a good one to remind people of. And yeah, it really, it's problematic, because, of course... The other thing that many people want is a risk-free existence, and it just doesn't happen in the immune response... So, yeah, I guess it's an important part of the overall process, some level of reactivity. And that needs, I think, to be conveyed to people.

0:17:26.2 Katie Berlin: That's a really good point. I feel like I have seen a lot of appointments where, especially when I was in... With a veterinary assistant, or a technician who was helping me with the appointment. And it almost seems like a lot of times we don't train our teams to talk about reactions as if they're normal and expected. We talk about them, like, if the client asks, then we bring them up, or we hand them something, kind of stick it in with their paperwork. But it's almost like we hope we don't have to talk about it. And in fact, a vaccine reaction is a very normal thing. And when I had my first COVID vaccines, I had, my first set of two... I had the Pfizer vaccine and I didn't have any reaction at all. I didn't feel anything. And I was worried. I was like, "Are they working? Am I a non-responder."

[laughter]

0:18:12.3 Katie Berlin: And then I got a Moderna booster and I was knocked on my butt for a day. And I was like, "Oh good, something's going on." But we expect it with ourselves when we get a vaccine. But when it comes to our pets, I think people just tend to get so panicky whenever they see their pet not feeling well. So getting ahead of it seems like a really good strategy and saying, "Well, that just means it's working." That's what we heard over and over during COVID. And now, and I don't know that I thought to say that very often in the exam room, of my own accord. That's a really good point. One thing that I do sometimes, I have sometimes struggled with is the line between where you continue to vaccinate for something, even though the pet does poorly afterwards, versus if you decide to discontinue that vaccine. Generally, obviously, I know if there's an anaphylactic response that's a little bit different than if they were like tired. But...

0:19:11.1 John Ellis: Right. Well, that brings up a couple of points. First of all, I think there's been some level of misunderstanding about what's actually involved in most adverse reactions, it doesn't really have, in most cases, anything to do with hypersensitivity per se in type 1 IgE response, it's more this innate, for lack of a better term, cytokine overload, that is really the cause of most adverse reactions in people and domestic animals when they receive vaccines. And so yeah, that... And the other thing to remember related to herd immunity, I mean, and this is the art of practice in the judgment call, I'm glad you brought it up, is if an animal has a really severe reaction to vaccination, then I don't think it's unreasonable to consider not vaccinating that animal again with that particular... Certainly that vaccine and maybe that antigen. And if herd immunity, if... This is where, again, herd immunity comes into play, if there's... The vast majority of the population is vaccinated, that really reduces the risk of that particular animal who's a genetic freak, for lack of a better term. It reduces the risk for that animal. So that's another very important reason for herd immunity, is it protects people or animals with weak or weaker immune responses to various things.

0:20:36.8 Katie Berlin: Yeah, good point. And I wanna go back to what you said where you said you would think twice about vaccinating that animal with that vaccine, and possibly with that antigen. So when you said that, you were basically saying that the vaccine formulation itself could be what caused the reaction, versus the distemper in it.

0:21:00.7 John Ellis: Exactly. And, in most cases, again, it relates to this hypersensitivity issue. In most cases when we have an adverse reaction to vaccination, whether it be in a cow or a dog or whatever, or a human, it's not an antigen specific sort of a reaction per se, it's more of this... It's more likely to be this response to a danger signal in the vaccine, in other words, a molecular pattern, whether it be in whatever the cell culture constituents are left or if there's an adjuvant, something else than the antigen per se. And I think that's sort of a misunderstanding that most people have. It's not usually gonna be the distemper virus that is causing the adverse reaction from an antigenic perspective, or it's gonna be something else. And again, it relates to the induction of inflammation, which is really the clinical outcome of that response.

0:21:54.0 Katie Berlin: So for team members listening who might not be vets or techs and have this background, an antigen is like the little piece of the infectious disease that you're vaccinating for. So the thing that you're trying to create an immune response to versus the adjuvants and the things in the vaccines that are meant to carry that piece of infectious disease and cause that inflammatory response.

0:22:20.3 John Ellis: Exactly. And it's another one... Reminds me again another one of the courses that I really wanted... Couldn't wait to get out of, biochemistry, and I wish I would have paid more

attention because, of course, all of life is biochemistry. And when it comes to... And beyond that, it's pattern recognition. And so without going into boring detail, it's the same sort of thing happens in the adaptive immune system, the innate immune system, only the patterns and the ligands and the receptors are different, but it's the same sort of phenomenon. And so again, in the adaptive immune system, we have these little parts, usually of proteins that are recognized by B and T cells, whereas in the innate immune system, we have these molecular patterns that aren't found in vertebrates that are recognized by a different set of receptors. And then there's this electrostatic interaction that takes place that triggers what happens next inside the cell. So it's really the same sort of pattern of response. It's just differences in what's responded to and how they're recognized.

0:23:17.2 Katie Berlin: All right, thank you. I am having flashbacks to the whiteboard in my immunology class now. [laughter]

0:23:26.0 John Ellis: Oh, that's a bad dream for most people.

0:23:27.1 Katie Berlin: All the diagrams. I know I was lucky enough to be in a study group with somebody who loved immunology. So she just stood up there and drew diagrams for us until we remembered it. It was fantastic. Laura Brown, if you're listening, thank you very much. [laughter] But okay, next objection, because we also hear this one a lot. Well, this one's really two-in-one the way that I phrased it, 'cause I like to do that. So what about when they say something like, "Well, the breeder said I shouldn't give this vaccine, or at least after he's a puppy, we should just run titers?"

0:23:56.9 John Ellis: I'll start with the second one, 'cause that's got less kind of EQ involved, probably, which is not my long suit. But so yeah, the titer thing is really interesting. And it's another one of my favorite topics. First of all, if you think about it in human medicine, all... Basically vaccine efficacy is based on titers. I mean, they don't challenge babies, in most countries, for instance. So it's all based on serology, essentially. But it's serology plus a lot of data on not only on the titers per se, but on the consequences in various individuals with various titers. And so, again, the data that is there, we always need more obviously, but the data that's there in human medicine is really so much substantially larger that it's really hard to get your head around. But if you think about it, the resources that are put into human medicine are huge compared to veterinary medicine. And even with that, there's gonna be some antigens for which there are poor data, and it's kind of a guess.

0:25:22.9 John Ellis: But again, the critical part of the whole titer story is associated with an outcome. And there's the initial studies for vaccine licensing where titers can be associated with an outcome. But the other... The limitation of that is, is that generally those types of studies are done under peak immune response, optimal conditions. And so how that relates to household pets is problematic. The other big problem in veterinary medicine and this is changing somewhat with the commercial laboratories, but it's still a big problem is standardization among laboratories in terms of the testing that's being done to determine a titer. So without... To cut to the chase, without the disease associations and standardization in titer testing, it's difficult to draw conclusions, especially if the titers are what would be generally considered a mid-range. I mean, if the titers are zero and screaming high, you're in a safer ground to make some sort of decision or judgment on those data. But if you got a mid-level titer, it can be really difficult to make an informed judgment about what to do with that information. And so given the low levels of reactivity overall, I think if there's a question, just vaccinate.

0:27:01.3 Katie Berlin: Yeah.

0:27:03.4 John Ellis: Certainly, as we've already talked about, if a particular animal has a really bad reaction to X vaccine, then that's a whole another discussion. But for the vast, vast majority of dogs, cats, people, the reaction, the serious reactions rate is very low. And so I wouldn't hesitate to vaccinate if there's a question about that. And I guess my answer to the first one, it's hard... I am trying to control myself but who's got the degree, really?

0:27:36.1 Katie Berlin: Yeah. Yeah. And we jump to the defensive so quickly when people say things like that, 'cause we're just like, "Why are you listening to someone who just decided that they could breed dogs in their garage? Why are you listening to them? And then you're coming in here and paying me money to listen to what I'm saying and arguing about it." But they don't necessarily see that difference right away.

0:28:02.3 John Ellis: Well, that's another, I think, an interesting difference between human and veterinary medicine. I think MDs in their first year get a class of Arrogance 101. And people who know me would probably say, "Ellis could teach that." But it's an interesting difference in terms of just the kind of you walk into a room... A pediatrician walks into a room and it's sort of generally, the reactions to these sorts of questions are gonna be, "Next." Not even gonna... I'm walking out the door, "Give me Tylenol," writing something down. And we just, I think as a profession, pay a lot more attention. And I guess we have to at some level, but I'd just like to do the experiment that if we actually had what I call more backbone in a lot of these situations, that it would be a lot better.

0:28:54.4 John Ellis: And I think people, they kinda want that at some level. I like to use the... I'm a biologist and I don't know, I wouldn't pretend to know anything about mechanics. I'm interested, but if I go to my garage to get my pick-up truck fixed or whatever, I'm not gonna really question his judgment. I'm going there because he's a professional with as much kind of experience and I respect that. And so it's always interesting that for some reason, a lot of people just figure they can bounce veterinarians around in terms of, "Well, I'm not gonna... I know more than you. Why do I need to listen to you?" Yeah. I don't get it at some level.

0:29:36.9 Katie Berlin: Sometimes we do ourselves a disservice because we do have a profession that could be super cute, and science is science, whether we have... We're surrounded by puppies and kittens, or we're surrounded by test tubes and things that are saving human lives actively right now. They can be really, really different surroundings, but the science is what it is. And sometimes I do think we don't emphasize that part of the profession enough because people like the puppies and kittens, so we have to find ways to work that in there. And I also think that it's important to know yourself and know your audience. And if you have a client that wants that scientific explanation and they want you to tell them what to do, you can usually see that, if you're paying attention during the conversation.

0:30:24.3 John Ellis: Right. Right. Oh, you could. I don't know that I can.

0:30:25.4 Katie Berlin: You sort of get a feel for that, of which clients just kinda want you to tell them what is recommended, then others really wanna have that power for themselves, and they need to go home and think about it and come back after they've thought it through and looked at some of the resources you've given them. But give them resources. Tell them you consult the AAHA

guidelines, because if they think that you're just parroting what you've been taught, then they don't necessarily see a difference between that and them talking about what they've learned, even though the sources were drastically different.

0:30:55.7 Katie Berlin: So reading the room is really important, but also using your team, like I've had technicians helping me who knew just as much about vaccines as I did and could have had a much better conversation with certain clients than I could have, because they were less defensive and they understood. Maybe they had a family member who didn't believe in vaccines and they were really annoyed 'cause every time they go home for family dinners, their family is criticizing them for giving vaccines all day. I don't know why, but there may be somebody on your team who could be the person to have that conversation in a different way than you feel capable of on that day. And we should empower them to do that because our teams are smart and motivated and they wanna do the right thing.

0:31:45.1 John Ellis: That's a really excellent point, delegating that sort of... For lack of a better term, delegating that sort of interaction for the people who are really good at it or relatively more good at it, I guess.

0:31:56.0 Katie Berlin: Yeah. You were talking about your pediatricians and it's like they weren't spending... Especially now, probably when I was a kid, it was a little different, but now they don't have that time to spend in the room answering all of these things over and over and over again, but the nurse might. And I remember the nurse at my pediatrician's office, I'm 44, and I remember Loretta and exactly how she looked and what kind of shoes she wore, and she always gave me a butter cookie at the end of the appointment. [chuckle] And maybe in your practice, you have a Loretta who can be that person for your clients.

0:32:29.5 John Ellis: Exactly.

0:32:29.8 Katie Berlin: Yeah.

0:32:30.1 John Ellis: Perfect.

0:32:30.2 Katie Berlin: Use your teams, empower your teams, and that's great. I think those are three of the biggest things, and you are emphasizing the scientific background for why we do these things and we shouldn't be afraid to do that. Don't shy away from the science just because you're afraid that people don't wanna hear it, that they may need it couched in a different delivery.

0:32:54.2 John Ellis: Yeah, one of the interesting of many epiphenomena around the whole COVID thing was it became apparent to me again that... It reminded me how lucky I was not to have to deal with the general public that often. The mistrust or distrust people have in, for lack of a better term, science has become sort of a cliché, but it really is... It's problematic and I don't know that there's... It seems to be getting worse. So it really is a problem in terms of... But again, a lot of that problem comes from the success of vaccination in this context, is that people haven't experienced the diseases, infectious diseases as nearly as often as occurred even in my childhood, whooping cough and polio, those sorts of things, you just don't see 'em, and it becomes easy for people to not... Who don't think about those things to kind of be convinced that, "Well, this is all someone making this stuff up and it's all multinational corporations trying to make more money on me." So it's easy to see without the direct experience of infectious disease why some of these

problems have emerged.

0:34:24.0 Katie Berlin: Yeah, absolutely. Okay, so one last question, you had given us your billboard, which was very, very good, and I think a very effective image. But from these guidelines specifically, what is the number one takeaway that you would want all of the veterinary team, so not just veterinarians, but technicians, assistants, client care teams, what's the one takeaway you'd like them to get from these guidelines?

0:34:53.3 John Ellis: Well, again, it's another reminder, I think, with the referencing and things that... And I'm biased, but vaccination is the one medical procedure in human and veterinary medicine that has saved more lives than any other thing by orders of magnitude. And so those data continue to be strengthened as we move on, so that's a reinforcement for what we already knew. The other thing that I think is important, we kind of addressed it at some level during this conversation is I think one of the things that's missing in veterinary medicine compared to human medicine is consistency, and I think that can lead to problems in terms of people... Well, especially if in the same practice, an individual... There's veterinarians that are using vaccines in different ways. Again, that's not that common in human medicine. There's a protocol that's based on data that generally people follow and they don't mix and match and come up with their own protocol. So I think that the guidelines provides database consistency, with the recognition that we don't know everything. So that's, I think, a real strength, and I think it's shorter than some of the previous guidelines, and so it's kind of a go-to, like you've already said, hopefully it'll be a go-to guide that can provide some level of consistency, more easily achieved consistency. Because again, I think we under-appreciate... Here's me trying to have some EQ, what the public takes away from this...

0:36:33.8 Katie Berlin: Yeah.

0:36:34.5 John Ellis: A lack of consistency in practice, amongst...

0:36:35.9 Katie Berlin: They think we're making it up as we go.

0:36:37.6 John Ellis: In the same practice. Forget about between.

0:36:38.8 Katie Berlin: Yeah.

0:36:39.8 John Ellis: Yeah. Yeah.

0:36:40.1 Katie Berlin: Yeah I love that message and that is something that our resources that we're creating around the guidelines are really gonna emphasize too, is consistency of message, how every member of the team can be actively involved in promoting that consistent message and in delivering accurate information to the clients when they ask, because it isn't helpful when a client calls, has a question about vaccines and nobody on the client services team can answer that question, and then it has to go to a technician who maybe not know, or it goes right to the veterinarian who might see something different than the veterinarian said last year. And you're right, that creates doubt in the mind of the client, and it makes it seem like it's an optional protocol, and that is absolutely not gonna help the cause of vaccinating as many animals as possible and creating that herd immunity. So I love that message and definitely, remember, you can check out those guidelines at aaha.org/canine-vaccinations. It's the 2022 AAHA Canine Vaccination Guidelines, and tons of online resources, including a really cool infographic that we had made that

you can share with your team, you can even share with your clients.

0:37:55.9 Katie Berlin: It takes things, breaks them down into easily digestible little bites of information, and I think sometimes that's just what people need nowadays. So definitely check all of that out. Dr. Ellis, thank you so much. I feel like if I have a question about vaccines that I can't find in an AAHA Guidelines, I know who to go to now, because... [laughter]

0:38:16.7 John Ellis: Well, that's just a scary thought, but thank you. It's been a pleasure.

0:38:18.5 Katie Berlin: Really appreciate your time. And everybody listening, if you have any questions about any of the information Dr. Ellis shared today, if you have thoughts about the guidelines, please email me at podcast@aaha.org, I promise I will answer and get your question to the appropriate person if that person is not me. Thank you for listening. We'll catch you next time on Central Line.

0:38:40.3 John Ellis: Thank you.