Central Line: The AAHA Podcast

Guests: Erin Frey and Jennifer Granick

0:00:23.3 Katie Berlin: Hi, welcome back to Central Line. I'm your host, Dr. Katie Berlin and I'm here with two guests today, they are both distinguished members, actually a task force chair and a task force member for the 2022 AAFP, AAHA antimicrobial stewardship guidelines, and I'm really excited to talk about a topic that maybe isn't always like what everyone considers the most exciting sexy topic, antimicrobial stewardship. But it is, I think, actually really, really cool, and I think you'll think so too, after hearing these two speak about it. So Erin Frey and Jennifer Granick, welcome to Central Line.

0:01:00.4 Erin Frey: Thanks, glad to be here.

0:01:02.9 Jennifer Granick: Yeah, thanks for having us.

0:01:03.0 Katie Berlin: So, before we get going I would love for both of you doctors to let us know what's going on in your lives, how you got to be here and why you're here talking to me today. Erin you wanna go first?

0:01:14.5 Erin Frey: Oh sure. So I'm Dr. Erin Frey and I currently work at NC State College of Veterinary Medicine. I do a combination of things. I work in our primary care practice, I teach public health and epidemiology, and then I have a research focus on antimicrobial use and stewardship. Before coming into academia, I was in private practice for 15 years working with cats and dogs in AAHA practices so I'm... And I've been on different AAHA leadership committees, and I currently represent AAHA to the AVMA Committee on antimicrobial. So it's kind of been a combination of having been in private practice, seeing resistant infections, trying to figure out what to do, following AAHA guidelines, and then kind of putting it all together and being on this side, the teaching side, and really trying to see what works with teaching students and working with clients and really putting that all together to serve the profession. This is a really hard topic, it can be challenging to have this conversation with clients, but I'm really confident that we can do it. We're doing better than we were, and I think we're making strides in the right direction, so that's what got me involved in this task force.

0:02:32.7 Katie Berlin: Optimism, I like that. That's what we need. Empowerment. [laughter]

0:02:39.5 Erin Frey: Yeah.

0:02:39.5 Katie Berlin: Alright Jen. Your turn.

0:02:43.9 Jennifer Granick: Yeah, thanks. I'm Dr. Jen Granick. I am a faculty at the University of Minnesota College of vet med. I'm a small animal internal medicine specialist, and though I have a PhD in Comparative Pathology with a focus on immunology, but my passion really is, though I'm not formally trained in epidemiology, all of the work that Erin was talking about, so I too do research on antibiotic use in cats and dogs, and also focus in the hospital and in outreach on antimicrobial stewardship and I'm really passionate about it because this is an issue that I see in my patients on a daily basis, and so it just became a really obvious area of focus because the cool thing about antimicrobial stewardship is that it's an actionable thing that every single prescriber can do to help decrease this really scary onset of antimicrobial resistance that we're seeing in our patients, so

it's just... It's tangible for everybody. And the other cool thing about it is that probably whether you know it or not, all practitioners are already doing some aspect of stewardship, so really just changing the focus and the intention in small ways can do a lot. So I think... Yeah, it's probably out of mind for most folks, but not necessarily out of practice.

0:04:28.9 Katie Berlin: I really like that. I like the idea that this is something that it's not just... You were saying you have to change everything you do. It's saying like, these are the things you're already doing, and let's try to do a little bit more and we can all do that, it makes it a little bit less intimidating unless it's like a culture shift and more of just an expansion of something that is already second nature. I really like that concept. Well, thank you both for being here and before... Also, before we get into all of the questions that I have for the two of you about antimicrobials, I would like to know what breed of dog or cat, I need to be more inclusive, would you be?

[laughter]

0:05:15.1 Erin Frey: I think this is a great question. It's actually a question that we ask... I've asked in interviews for technicians at our practice is, what would your cage card say?

0:05:26.0 Katie Berlin: I love that. Oh my God, I'm always feeling that.

0:05:31.8 Erin Frey: And I thought about it actually, I took a couple of online quizzes, so I said, what would I be? But actually in the end, I love cats. And so I would say that I would identify with Maine Coon cats. They are tall, with long hair, they are very social, they love to be around people, they love to be in different environments, they're confident and... Yeah, so I think I would be a Maine Coon cat if I had to be a breed of cat.

0:05:58.6 Katie Berlin: I love that. Who doesn't love a Maine Coon.

0:06:00.2 Jennifer Granick: Oh my gosh, I'm actually in love with one of my Maine Coon cat patients. I get like butterflies when I see him, I love him so much.

[laughter]

0:06:10.8 Katie Berlin: That's how I know I'm with my people.

0:06:13.9 Jennifer Granick: I took a online quiz that Erin actually provided to see what sort of dog I am. I kind of knew it in my heart already, but it was confirmed that I am a golden retriever, friendly, cuddly, kind of inherently lazy, but can be excitable at times, really loyal, a little bit crazy. Naughty in a good way. Yeah, just kind of like, "Hey guys, what do you wanna do?" [laughter] Kinda up for anything. Happy to be on the couch. Happy to go for a canoe ride.

0:06:57.5 Katie Berlin: Love it. I mean, who doesn't love a golden? So yeah, that's fantastic. I was a mutt on the quiz that Erin sent, which is actually accurate, I am in fact a hybrid, but also it said I was flexible, and I think depending on who you talk to, they would either laugh or be like, "Yeah, that's true." And I'm not gonna tell you what the people closest to me would do. [laughter] Anyway, alright, well, thank you. I just learn so much about people with that question, but I love the cage card one, and I'm totally gonna steal that for future podcasts, I will give you credit. Okay, so why are we talking about this? You were both on the task force for this collaborative guidelines with the

AAFP and AAHA. And these guidelines, they're shorter than a lot of the guidelines that we put out, there could be like 20-some pages, these are shorter, and there are sort of more bullet point, here are the things that you can do, and I just think that's so great, they're so actionable and not judgmental they're just stating what you feel is most important that we all can do right now, what did it mean to you to be on these guidelines? What was that experience like?

0:08:14.1 Erin Frey: Well, I would jump in and say what... Sort of building on what Jen said is there's this... I think there's a general feeling maybe that doing antimicrobial stewardship, you're gonna have to start something new, but I think what the guidelines do is they really... It's a way to really look through and say, oh, I'm already doing that, my team is doing this, or it's to really celebrate what you're already doing, and I think maybe that can make it less intimidating, the idea of starting like... We're not saying, "Start a stewardship program." I mean, if you wanna do that and you have the resources to do that, then great, and I think it builds on a lot of the other guidelines that AAHA has, the biosecurity guidelines. So Infection Control Program, it really integrates in what other things... We talk about preventive care, which that feeds right into the canine and feline Vaccine Guidelines, our lifestyle recommendations, and to me, again, I mentioned I worked in private practice for 15 years, and then at the vet school, we're in AAHA practice as well at the vet school.

0:09:18.9 Erin Frey: As an associate out of practice, when you have a discussion about what are we gonna do or what are our standards of care gonna be or what are our policies gonna be? I just found myself and my colleagues always falling back on, "Well, what does AAHA say?" What experts has AAHA brought together to give us the standard of care and... 'Cause practitioners, we don't have... You don't have time in private practice to read 50 papers and to look at all the things, you really rely on AAHA to do that work for you and then have it in one place. So the guidelines that were out before this, it had been a few years since they've been updated, and there's been a lot of new things done and a lot of new work done and I think one of the big things that we wanted to address here was that the previous ones were called judicious use.

0:10:07.3 Erin Frey: And really the focus... We wanted to expand the focus from not just thinking about that time, you have an animal in front of you and you're choosing, are you gonna use an antibiotic or not, but really, again, to say it's part of this kind of global thing that happens at your practice. So the vaccines that you recommend, the nutrition that you advise clients to do, all of those things are part of stewardship. So really re-framing it in terms of this bigger picture rather than just that moment to emphasize how important all that is, and really to get the resources in the hands of doctors who can't... You're just busy. This is the work we do is to get those high-level things out, and then if you wanna read the resources, that's why you put a lot of references in there for people who really wanna dig in deep and figure out the details.

0:11:03.2 Katie Berlin: Yeah.

0:11:04.2 Jennifer Granick: Yeah, I would agree with everything Erin said. I love that the guidelines are, as you said, they're kind of... They're bullet points, no one has time these days to read through pages and pages of recommendations and that's intimidating, and I think that the main message in these guidelines is that you're probably doing a lot of this already, but I think everyone can probably find one action item just to start with, just say, you know what, I'm doing a lot of these things, but this thing I'm not really focusing on. Maybe we'll examine that for our practice, and I think that the guidelines are presented in a way that, yeah, they're accessible. And if you pick one

thing and focus on that and then build upon that momentum, I think small study change is really impactful, and what's really cool is that you already have probably a lot of momentum in your clinic from some of these things that you're doing, like Erin mentioned infection control, preventative care.

0:12:19.2 Jennifer Granick: So I think another... As Erin said there's a lot of resources that are referenced in the guidelines, and they're great resources, and even if you don't dive into all of them, just looking at that reference list will provide some valuable information. So, I recently gave a lecture at the AVMA conference and asked how many folks were familiar with the International Society for Companion Animal Infectious Diseases, Antimicrobial prescribing guidelines that are out there for urinary tract infections, respiratory infections and canine superficial folliculitis. And I was surprised how few people were aware of them, but a lot of the nuts and bolts from those are kind of embedded in these AAHA guidelines too. So I think it's... The other thing I appreciate about that is sort of simplifying some of that and making it available to everybody, in again, a really accessible way.

0:13:29.9 Katie Berlin: Yeah, I really love that about these, and I also love that we have... Hopefully members of the veterinary team listening to this who aren't vets and maybe don't have as much background in learning about infectious disease and how to treat it, but they're involved in the care of patients for sure, and in communicating with clients who are used to a certain treatment being given to their pets. And so I love that these guidelines are accessible to the whole team, like you could hand this document to anybody on your team and they could probably read it understand it and be like, "Oh, that's something that I could keep in mind when I'm communicating with clients who ask me certain questions, or this is why that doctor does things a slightly different way than I've seen before." And I really love that because we need everybody on the team, and we'll talk about that more in a minute, but antimicrobial stewardship can't just be one person in the practice, right? So it's definitely... It's great to have a document that helps make it look so much simpler. We know it's not easy, but it doesn't have to be so complicated. And really when I was reading the document...

0:14:44.6 Erin Frey: Straightforward?

0:14:44.8 Katie Berlin: Straightforward, there we go. Yeah, and when I was reading the document, you know I was thinking... [laughter] I'm not in practice right now, but looking at the document, I was thinking... I was in practice very recently, and I was thinking, "Okay, I already do most of these things, but do I do them enough? And do I have this conversation every time?" And the answer, of course, is no. I think the three of us talked about this previously, we said this is something that you need to think about every case, every time, and maybe you'll end up prescribing antibiotics, but thinking about it, having a conversation is always appropriate. And I definitely have not always done that. So that alone is just helpful, do you both feel like we've made progress in this area? I know, Erin, you mentioned that you think we're doing better, do you think our progress has been pretty... As we know more, we do better, or do you feel like we are sort of reaching a point where we have to make a conscious decision to change how we handle these drugs?

0:15:51.3 Jennifer Granick: Gosh, I feel like both of those things are true. I think there is some urgency in this. There are some estimates now, this isn't in humans, but that by 2050, untreatable microbial infections will be the number one cause of death worldwide, and we don't have those statistics for our companion animals, but they live in our shared environment, so I think we use a lot

of the same drugs or same classes of drugs. We treat... Treating similar conditions, so I think that there's some urgency, but I also think that we've made progress. Actually, out of NCSU, there was a recent paper [0:16:36.4] ____ looking at prescribing over time for UTIs, and they looked at over 100 or 1000 clinics, this was like black and colleagues, and from 2010 to 2019, and the International Society for Companion Animal Infectious Disease or escape guidelines. The first version came out in 2011, and they found in this study that there was something like a 13% increase in utilization of amoxicillin for UTIs.

0:17:10.5 Jennifer Granick: So lower urinary tract infections after those guidelines came out, like each year, there was this increase, and that's listed in those guidelines as a first line agent for UTIs, which is great, because if we use other antimicrobials like fluoroquinolones, for instance, there's a greater risk of the development of Antimicrobial Resistance, because with those drugs, once resistance develops, you typically have multi-drug resistance, you have resistance to multiple classes of antibiotics that come along for the ride with the... On the plasmid that confers fluoroquinolones resistance. So this increased utilization of amoxicillin is like a lovely trend. It's a fabulous trend. So I think that that proves that the veterinary community wants to be evidence-based, wants to embrace best practices, and of course, all of us just wanna do what's best for our patients. So I think that paper shows that there is progress, and I'm sure that if we looked in other areas we're likely to see the same, and hopefully in the future that that trend will continue.

0:18:26.1 Erin Frey: Yeah, I think another thing that I've noticed is this idea of using topical drugs for skin infections, and when that was sort of first came out as a thing and that was... That also was guidelines in 2014, and that was a huge culture change and it was just... What do you mean? Just apply a... Do a bleach rinse or... I can't possibly do this. Well, now it's very standard for animal... Topicals has become... Now, there's... Not to say that there's not systemic and microbial being used pills or liquids, but I think... I feel like I have seen a culture shift in terms of treating skin infections, that there's more use of what can we do on the skin, the veterinary dermatologists have really been pushing that, and then that's trickling down to private practices, and so that's a huge, huge change and an increased emphasis on, well, what's the underlying?

0:19:37.2 Erin Frey: And in the intervening year since those guidelines, we've had new and new therapeutic, so we had drugs that actually control the itch better and that are more rather than... Especially here in the South East, we see a lot of atopic dermatitis, so many of our patients are itchy and we just have much better drugs to treat itch. So if we're treating the itch, even if we don't know, again, some of these drugs treat multiple kinds, so whether it's you're allergic to trees or dust mites or your food or whatever, it still hits that itch pathway. And so if we can deal with that, then we're doing better. So I think it's kinda been multiple things in terms of skin.

0:20:21.4 Erin Frey: And also there's been more... The idea of the microbiome and probiotics, and that has really started to become I think within the culture, people are used to thinking about it for themselves, and so when we talk about saying the side effects of drugs on the microbiome or what it does to the bacteria in your gut, because that's something that's more... I don't know if I wanna use the word trendy, but it's on trend, it's something that is more common for people to talk about, that might not have been something that we could have used as a discussion point in the past, but now we can. And the power of probiotics or diet changes to impact common conditions like diarrhea. So I think we're making progress, I agree with Jen. I think we have a long way to go, but I do think we're making progress. And things... It's just, things are slow to change, and that's typical of anything, not just antibiotic use, but any new knowledge or innovation change within medicine is

just slow.

0:21:30.7 Jennifer Granick: Yeah, but I think that what you said, Erin, about the microbiome is really, really important because I think Time Magazine has featured the microbiome. Not that anyone's watching regular TV anymore and not just streaming in everything, but if you do watch regular TV, there are commercials for yogurt and how great this yogurt is, 'cause it's got all these live active cultures. And so I think there's the advantage of that shared vocabulary and language with pet owners now that veterinarians can tap into to make these conversations easier and to help them understand why we wanna use antibiotics only when needed, and only for the duration needed, because we want to protect that microbiome, which is so important for whole body health.

0:22:29.0 Jennifer Granick: The other thing I don't think folks think about a lot is that when we treat... Erin mentioned the use of topical antimicrobials, and topical treatments, it's really important, 'cause when we use systemic drugs and we're basically sort of increasing that population of resistant organisms in the gut, we're kinda giving them an advantage when we get rid of all their friends that are susceptible to the drug. So even if we're not treating something in the gut we're treating something on the skin, it's affecting that population in the gut, and that tends to be a really important reservoir for future resistant infections like UTIs, for example.

0:23:08.1 Katie Berlin: Yeah, those are all such great points, and I've seen the same trends myself, even just since graduation, just how often... I remember the very first day that I worked as a vet in private practice. Yeah, I didn't do an internship. I came straight out of school, started at an AAHA practice, and the very first day they showed me where the ear medications were, and the Cephalexin, the massive bottle of Cephalexin and they were like... It was June in upstate New York, and they were like, "You're gonna be using a lot of these things." And I did, and the first day I had to calculate doses of Cephalexin because I've never done that before, 'cause why would we learn anything easy like that in school. Right? And that sets a tone for how you're gonna practice the rest of your life, how you learn at that first job, that first week, but I have definitely seen a trend with people using more topicals and they've made topicals cooler too. You see people trying to make the packaging easier and the products look more appealing and they smell better, it's not just like dumping chlorhexidine in a bucket, and I love that. I love...

0:24:20.1 Erin Frey: Or the sulfur-containing shampoos. Who wants their dog to smell like sulphur?

0:24:27.2 Katie Berlin: Yeah. I think companies have really caught on to the fact that people aren't gonna use this stuff no matter how well it works unless they try to make it a little bit more user-friendly, which is a huge issue with topicals obviously. But I was gonna ask...

0:24:43.1 Jennifer Granick: Now there is like sprays and...

0:24:45.1 Katie Berlin: Yeah, like Mousses.

0:24:45.2 Jennifer Granick: Like sprays and Mousses things that make it really easy and like...

0:24:49.8 Katie Berlin: They smell nice.

0:24:53.3 Jennifer Granick: I have wipes, like chlorhexidine wipes for my dog at home when she

gets her chin, she has atopic dermatitis, but she gets like these nasty pustules on her chin, I just wipe it up. Give her magical anti-itch injection wipe up her chin. It's easy. And veterinarians, if you can't treat your own pet easily. I feel like we are the best and worst pet owners, so if it's something that we're willing to do, then you know it's a good product. [laughter]

0:25:27.7 Katie Berlin: For sure. Yeah, and I feel like the mousses, especially, the clients seem to really like those because they last a long time and they're kind of fun to use, and it's like a little massage for a dog or whatever, but there's obviously still a lot of people that come in and just want the pills. They're like, I'm not gonna do that or they don't believe you that it's gonna work. And so this leads me into my next question. I was actually gonna ask you what you see is the biggest obstacles to all of us being good stewards of these drugs, but actually, I think that's really the same thing as what I was gonna go into next, which is these common objections that we hear from colleagues, from co-workers and from clients. And I thought maybe we could just start addressing some of those common ones, and that will cover a lot of the reasons why people maybe don't do this every case, every time.

0:26:22.8 Katie Berlin: So the first one, this one... This is my biggest one, I think, especially for newer graduates, people who are newer to the field or new to a practice, and it's that clients often are expecting you to prescribe oral antibiotics and even if they kind of understand why that it's important to be good stewards, they'll say, well, can't you just do it this one time, like I'm going on a trip or my son is sick, or I have this really busy week at work, and we're worried that if we don't do what they're asking, they'll go someplace else, they'll leave a bad review, or even they won't follow up with us because so many people don't, and they'll sue us if the pet doesn't get better or take us to the board. And these are not like crazy possibilities, so how do you feel like the best way is for people to address that concern?

0:27:22.4 Erin Frey: Yeah, it's tricky and that's... It's real. I think we can all say we've been in the room, or... I think one of the things we talked about in another conversation was maybe not everybody at your practice does it the same way, and so you might be called upon to, oh, well, Dr. So and so always gives, to your point, Cephalexin.

0:27:47.7 Katie Berlin: Like candy.

0:27:48.5 Erin Frey: Mrs. Jones calls in whenever Fluffy has a rash, then Dr. So and so gives 30 Cephalexin and two weeks of Prednisone or something like that. So it's hard, and I think that... I think of it like any other difficult conversation, right? So we have the tools, we use these tools when we talk about money, we use these tools when we talk about convenience euthanasia. So some of the same things that work in those conversations can work here. And one of that is being very clear, there is a term that... There's a great paper in Human Medicine that talks about what's called foreshadowing, and we already know that when we describe what we're doing in our physical exam that clients take value from that. So, side benefit to that is, if we are foreshadowing what we're gonna get to at the end, for example, if again, we'll use fluffy.

0:28:42.4 Erin Frey: Fluffy comes in with a cough, and if I'm saying, "Yes, I can hear today that she has a cough, but I'm listening to her lungs and her lungs sound clear. Oh, good news. She doesn't have a fever today. Oh, she's not dehydrated. That's great. Oh, you're telling me that she's eating and drinking okay at home." Fluffy is running around the room, look how excited she is to be here today, all of those things, as you describe doing your normal physical exam, your discussion

about history, you sort of set the situation for saying at the end, hey because of all of these things, fluffy doesn't need an antibiotic today. Yes, she's got a cough but she doesn't have a fever. Otherwise, she's feeling well, and for most dogs with these signs and her age, they do really well and the cough goes away on its own, let me make some other recommendations for how you can help fluffy at home. Making sure she's rested, making sure she gets water intake. And Jen's college, University of Minnesota has a really great... It's called the non-prescription... What is it called? Non-prescription pad? Jen? Where you...

0:29:52.8 Jennifer Granick: Yeah, non-antibiotic prescription pad.

0:29:53.6 Erin Frey: Prescription pad.

0:29:55.4 Katie Berlin: Oh my God, that's amazing.

0:30:00.6 Jennifer Granick: It's fun. It's on our website, it's the antimicrobial resistance and Stewardship Initiative website arsi.umn.edu and it's got a bunch of clinical resources including this, and the whole point of that is based upon the viral prescription pad in humans where there was this recognition there was way too much antibiotic prescribing for upper respiratory infections that were viral primarily that weren't complicated by a bacterial infection and they just get better on their own. Yeah, they're annoying. But what... The idea there is not just withholding antibiotics, that feels negative, it's providing positive actions, so this... Our document, which you can download and totally change and put your clinic logo on it or whatever, if you wanna use it, but it's like good news, great news your pet does not need an antibiotic.

0:30:57.4 Jennifer Granick: And if someone told me that I'd be like, "Oh my gosh, so I don't have to remember to give this twice a day, I don't have to chase my cat around the house and basically sit on it to shove a pill down its throat. It's amazing. Yey, no antibiotics." And it explains that a lot of these conditions will improve on their own and that we just need to provide some supportive care, and it allows you to kinda fill in, what are the actions or supportive care things that you're either gonna prescribe or tell the owner to do at home, so like the Upper Respiratory Infection example, put the cat in the bathroom when you're taking a shower or humidify the air, warm up the food so that they can smell it better 'cause their nose is stuffy.

0:31:41.9 Jennifer Granick: And then also, when should you be concerned, when to notify us if things aren't improving by or what things you should look out for. So it's providing positive things for the client to do so that they're helping their pet, 'cause they came to you because they wanna help their pet. So it's allowing them to do that. It's communicating that you're both on the same page, your goal is helping the pet too, which helps to bond the client to you and to your clinic, and provides a "if then" sort of scenario too. So if your cat still... Stops eating well or is still snotty in a week or whatever your parameters are, then we have a plan, come back in, or at that point it would be appropriate to prescribe an antibiotic.

0:32:37.2 Jennifer Granick: So, I think providing positive treatment actions, even if they're not antibiotics, I think it's helpful. Erin gave the example of probiotics and diet, so for those acute diarrheas that come in and they routinely get metronidazole, and there's pretty good evidence there, out there now that says metronidazole can actually cause more dysbiosis, and so if our goal is to protect that microbiome and sort of put it right again. Then I think providing things that the owners can do rather than them just leaving without anything, you know, I think that's where they would

leave the bad Yelp review or go down the street for alternative therapy, but it's a lot of client communication. Right?

0:33:27.2 Katie Berlin: Like everything.

0:33:28.9 Jennifer Granick: But it's not... Yeah, but it's really not just about withholding antibiotics, right, it's about what should we be doing for the animal and there's lots of things that we can do.

0:33:39.3 Katie Berlin: That watchful waiting.

0:33:44.3 Erin Frey: What I mentioned before... Yes, yeah. And I mentioned, I did do some research on antimicrobial stewardship, and so one of the things I did last year and the paper is coming out sometime soon, I said look at focus groups and ask them about use, and one of the things that the people in our focus groups really honed in on was, answer all my questions. Tell me why they need... They don't need an antibiotic. Tell me what I should be doing. And then that piece that Jen mentioned is, it's really critical to say, these are the things to watch for, this is how I will know if it's getting worse or if it might need antibiotics, I'm saying they don't need it today, but I'm not saying they might not need it in 24 hours or 48 hours. So at home, I'd like you to watch for... As Jen mentioned, they're not eating now, or they're becoming... They were bouncing around and now they're restless and they're sleeping all day.

0:34:40.2 Erin Frey: You have a plan, so this is where the team comes back in, whether it's you are going to call them back or Katie, my technician is gonna call you in 24 hours to check on Fluffy and see how things are going, or in 48 hours, or we'll email you or if you have an automatic system that texts people and just sends them a text message and checks in that they can respond, it's really... Where I think... We do this and other things, but I think it's really critical here is, what are you gonna go home and do today, what are you gonna look for and when are we gonna talk again? And having that plan set before they leave, because then they're not calling... The tendency for them to call back and get angry is I think less in my experience, it's been if you say what they're looking for and say when you should talk again, then when they call or they text in, they say, "Hey, you told me that this might happen, well, now it has."

0:35:32.6 Erin Frey: "And you told me that if it did, we would use antibiotics or we would use this other medication. I think it's time for that." This is what I'm seeing. So it's less... I find it less combative, it's more giving... Again, foreshadowing, here's the things to look for. If it happens, then we'll do this and it gets away from that, I'm not giving you something, it's saying, I'm using my clinical judgment to say that it's not needed today, but here's where it might be needed, we don't know how it'll go, it might just get better. The funny thing is, you mentioned the diarrhea, Jen, and I talk to my students about this, and I say, how many of you have had a pet who's had diarrhea? And of course, almost every single one of them raises their hand, and I say, I'm not gonna...

0:36:14.5 Jennifer Granick: That's like asking, how many of you have had a pet?

0:36:19.9 Erin Frey: Exactly, but then you say, I'm not gonna ask you, how many of you have had diarrhea, but I'm gonna assume that everyone at some point in their life has had diarrhea. Think about what you do, do you go to the doctor when you have one episode of diarrhea? No, we eat rice, or we eat toast or we drink Gatorade, and so it's just to highlight, there's this little bit of disconnect

between what we do personally. You have a cough for a day, you don't go to the doctor, expect to get something, and I also find that in practice, I have been able to capitalize on what the good work that's been done by our pediatricians because you're... To your point about respiratory, the pediatricians have gotten a lot more savvy about having these conversations, and so people with children, when you start to have a conversation about a cough with no other signs in an otherwise healthy pet, we're gonna just...

0:37:12.3 Erin Frey: It's oftentimes, it will get better on its own and we're gonna do these other things, just like we do with kids, and a lot of times clients will be like yeah, yeah that's happened with me. So having that frame of reference, I've found that since the pediatricians have started doing that, my conversations about, at least for upper respiratory, have actually gotten a little bit easier because if clients have that sort of shared experience of, "Oh yeah, that's what I did with my son or my daughter," then it's not so new to them, the concept is something that's familiar. So it feels more comfortable, and I think that's what it's about, it's about us getting more comfortable with it, our team getting more comfortable with it, and our clients. So we know more and really focusing on the pet, I think itself is...

0:38:03.4 Erin Frey: There's been actually some research out of Australia and the UK, and people really don't care so much about these big public health or grand ideas, but they really care about their pets. So if you can bring it back to, this... Antibiotics are not the right choice for your pet and here's why, they don't need them, or it's gonna upset their stomach or it's gonna... These are the potential side effects, then you're relating... Even though in your head, maybe that's why you're... Part of why you're driven to do it. Clients really wanna know what's the best thing for my dog or my cat. And what are the pros and cons of using it? So I think if you keep it to that animal and the impact on that animal and that client, you're gonna get a lot more traction in terms of going away, everybody feeling okay about it.

0:38:57.3 Katie Berlin: The really important thing there is the communication, and we talk about that in every episode of this podcast. Basically, veterinary medicine is a communication science with some medicine thrown in. We, without that communication, we're just not gonna be successful at treating hardly anything.

0:39:15.2 Erin Frey: Yeah.

0:39:17.1 Jennifer Granick: A hundred percent.

0:39:19.9 Katie Berlin: Yeah, and I think it's also important, this is a story that I know we've talked about before, but I wanted to share with our listeners because this was an example of how everybody involved was like, "Just this one time," and everybody had the dog's best interest at heart and it just didn't work out well at all. But I saw this dog, we'll call her Eliza, and she was a shepherd mix, she's like a really big dog, and she was extremely fearful. And we were a fear-free practice, and so we had a policy, I called it a no torture policy. We weren't gonna hold anything down with a muzzle on and do things to it, which I loved. It just made practice so much nicer for me. But with this dog, what that meant was when she would come in and she'd be so scared, she was having chronic lower urinary tract signs, blood in the urine, accidents in the house, asking to go out all the time.

0:40:18.6 Katie Berlin: And I saw her, I think once or twice for this, and the clients were like,

"Yeah, she's had a number of these, and usually with antibiotics it goes away and then it takes a while and comes back, but she always does really well on the antibiotics, so we just want that again, 'cause we don't wanna scare her." And I wasn't gonna wrestle this massive scared dog on the X-ray table, but I knew radiographs and a cysto culture were important. I knew it was time, but I didn't do it at that visit because it was so much money to do those things and it would require heavy sedation and it would be all day, and we were really busy and the owners knew she did well with these antibiotics and then it took a while for the signs to come back, and so I gave the antibiotics just this one time, I think not realizing how many times that had happened, and she came back in, her signs came back right away, and I was like, "Well, I guess we need to do this." So we decided to sedate her, got her radiographs, and she was full of... Classic, full of stones.

0:41:25.9 Katie Berlin: And actually a colleague was in surgery that day and said, "Well, I can actually... She's been miserable for so long, I can just do a cystotomy today." And they did the cystotomy. I was honestly surprised that the owners had consented, but they knew she didn't have a choice really at that point, and her bladder was just a disaster. It turned out to be full of MRSA, and obviously, we didn't have a culture right then, so my colleague sewed her up as best they could, and then the culture got sent out, came back MRSA and she had not done well. I think she actually dehisced because of how disinfected and necrotic and sad her bladder wall was, and I've not forgotten that dog because these colleagues never complained about money and they never said, "I don't wanna do that. I don't think you're right." They just were scared 'cause they'd had to sedate this dog to do what they thought would be a simple diagnostic that she didn't need, and in a multi-doctor practice, we hadn't done a good job of communicating all together what the consequences of that could be, and why it was so important to do these tests a lot earlier.

0:42:38.0 Katie Berlin: And that case definitely made a huge impact on me and how I saw antibiotics for urinary problems, especially going forward, and especially in younger dogs, she wasn't very old and that didn't need to happen, and it takes one case like that sometimes to really get through to you, and I don't want that case to happen to anybody else. So this is a really, really important issue. And one thing that didn't come up in that scenario was my colleagues criticizing me for doing those tests because at that point it was clear, right, it was way past the time to do those tests, but I've been in practices where there was this doctor, maybe a doctor who'd been practicing longer than me, who would have been like, "Oh, I wouldn't have done a cysto right then," or like, "Why do we sedate this dog to do this test when the owner just needs something now and so much money," and it could be really intimidating, especially for a newer veterinarian or a technician who knows better and they're working with a clinician who insists on doing things a certain way. And that to me is a huge obstacle. Do you have any comments on those situations, how we can navigate conflicts within the practice about how colleagues might be viewing this?

0:44:04.4 Erin Frey: Yeah, that's a tough one. And I know I've worked with people, I know I hear friends who've worked with people where you just... And I think that's just a part of practice, we all have a part of why we go into it is you have your autonomy, and to a certain extent, you know the patient that... You have the patient in front of you, nobody else does, and so having some variability amongst what people do is just a natural fact of practice, and I think that a couple of things, one is sometimes people don't know what other people are doing, and that can be not just for this, that can be a culture of a practice. Some practices are great and they have rounds and they talk about tough cases and they talk about, "Well, what do we do?" How do you treat this kind of case, and that can be kind of the practice culture, and others don't. I've worked as a relief veterinarian, and I'll see a case so then I'll ask the technician what drugs do we have, or that kind of thing, and they'll say,

well, this doctor does it this way, or this doctor does it that way.

0:45:08.2 Erin Frey: So I think that's just a natural part to be doing things differently. And I go back again to a statement I mentioned earlier, which is having AAHA guidelines has helped me so many times as a new doctor, as an associate, because if you have this kind of a conflict where somebody's maybe doing it differently and it's your word versus someone else, bringing in this sort of third party guidelines and saying, "Well, here's the recommendation, here's the standard of care that has... " This is an outside third party, and being able to bring that in and use that to your side and saying, "Well, the standard of care is, I should be taking X-rays and doing a cysto to be able to get urine and see what's going on." I think that can help. I think that can help in that situation. What do you think, Jen?

0:46:05.1 Jennifer Granick: Yeah, I 100% agree. I think there's so much complicated emotions in those situations and folks have done studies on stewardship and barriers to stewardship in the human health care side, and all of these things play into it. It's not just like what your knowledge is, but it's your years of experience, it's the group that you work with, the client expectation. So, it's not just, "Oh, my patient has this problem and this is what I should do." There are so many more things that influence our decision making, but I think guidelines save us all the time, as Erin said. Those are standards of care. So even if you're a new graduate, you worked really hard to get that DVM degree and you don't want it threatened by investigation of the board of animal health, but if you stick to what the standard of care is as outlined by available guidelines, then you know that you're doing the right thing. And so, in your Eliza scenario Katie, for sporadic urinary tract infections, the guidelines tell us like, "Sure, you don't have to culture all the time for those. Use these empiric drugs for prescribing amoxicillin or TMS."

0:47:20.0 Jennifer Granick: But they do also clearly say that if there are recurrent urinary tract infections, that's when the... More diagnostics are warranted. And so I think using those as your backup is really helpful, and I also just... I feel like evidence are... Veterinarians tend to be really evidence-based, so if you provide that evidence, we know that if you're just talking to your aunt and you try to provide evidence for why should you wear a mask or whatever, that's a harder sell, but when you're talking with like-minded veterinarians, we all learned about evidence-based medicine. The problem in vet med is that a lot of evidence has been missing, but when it's available, provided 'cause not everybody has time to review the literature every week, and the guidelines do a really nice job of distilling a lot of the newer findings down. And I think providing that to your colleagues, getting consensus among colleagues about, what are we gonna do in these different situations?

0:48:33.6 Jennifer Granick: Getting the care team involved, because it may be a different doctor seeing a patient every time, but maybe it's the same technician who could speak up and say, "Oh, you know, this dog was just in two weeks ago for this problem and two weeks before that." I think that can help. The other thing about getting consensus among practitioners is that really goes a long way to decreasing frustration from pet owners because it is hard to have... Well, so and so doctor gave me this last time, and I just wanna do that again, it's hard to... It's a lot more conversation. Right? To change the tactics, but if you all have consensus based upon good standard of care guidelines, that makes it a lot easier.

0:49:31.3 Katie Berlin: Yeah.

0:49:31.4 Erin Frey: Yeah, and I wanna highlight the one thing you said, which is about the technician, and I think you mentioned it before, Katie, that just the team... So many times, it could be a kennel staff, it could be a tech, it could be your receptionist who has a relationship with this client or with that animal based on their own interactions which are separate from yours, and they really... We should really celebrate their passion and the way that they advocate. I have had that situation many times where the technician will come to me because they really care about a certain patient and like, "Oh my gosh, they have this again," and then you're like, "Okay, tell me more about that."

0:50:20.3 Erin Frey: Well, it has been, this is the third time, and it's really... And they are the... Again, the team is a lot of times a continuity over time, and really the ones who are seeing things over and over that... I would welcome a team member to share that with me if they have this insight that maybe I don't have because I'm in a big doctor practice and patients are between different clients. Again, that's a little bit of culture too, and I think that's one great thing about AAHA in general, it's just celebrating teams, that isn't in the nature of the culture of AAHA, to celebrate teams and to encourage involvement and empowerment of the team, so I feel like that's a bonus, a plus, to our hospitals.

0:51:13.2 Jennifer Granick: Yeah, 100%. I feel like medicine is a team sport, and if you're doing it alone, you're probably not having the best experience and your patients may not be either.

0:51:24.4 Katie Berlin: Yeah, and your team isn't either, and so right now, everybody's having a hard time finding and holding on to team members. One of the best ways to find and keep really good people is to get them involved. That's why they're doing this. There's so many easier ways to earn money, and earn more money probably, so I love that you said that. I just want everyone listening to know that I did not pay them to talk about AAHA as a [0:51:53.4] ____. [laughter] But I love that because that is such a huge part of our message now and the entire... Everything that we do, I want that to be empowering for the team and for leadership to say, "I can give my team more responsibility and trust them to speak up and advocate for our patients," 'cause that's why we're all here.

0:52:14.7 Katie Berlin: So thank you for that, Erin. But there are so many other aspects of this that we could talk about, and I don't wanna keep you here forever, but we could talk about the culture, maybe you don't have to do your own culture every time, but when you do do it, it can cost a lot, and if you're doing... If we're trying to do diagnostic tests on more patients to really justify when we do need to use antimicrobials and decide what those antimicrobials should be, then maybe we can find a way to make them a little bit more affordable for the average client. Would you say that that's realistic to think about, maybe quantity will let us be a little bit more flexible with how we can price these tests so that clients can afford them, 'cause I know vet care is really expensive for a lot of people.

0:53:11.9 Erin Frey: Yes, I think it's both. I think, I know a number of commercial labs do give sort of a quantity discount, so they'll give you a pricing off if you do a lot of a certain thing, then you get... The price to you is less. And to your point about when you come to a client to say, "This is a situation where we... This is the third urinary tract infection they've had in six months, we definitely need to... " And then one of those things is a urine concern or to the skin issue. We've treated the skin and it's not getting any better, now is the time to... We've exhausted these other things, let's look at that, but I would also say on top of that is that there are a lot of diagnostics that

are not that expensive, and that can be done in the hospital and really can give you a better sense of, whether this is something that needs to be treated, I am a huge fan of cytology for everything. A slide and a cotton tip swab or a piece of double stick tape can really tell you a whole lot and really help you, actually it can help you in that conversation as well.

0:54:23.2 Erin Frey: So doing an ear cytology, doing a skin swab or a tape prep and staining that, and if you have a situation where you do that and you see inflammatory cells, but you don't see any bacteria or maybe, "Oh, I see yeast and I don't see bacteria," then you can confidently come into the room and say to the client, we checked and we don't see any bacteria or we only see a small number and that's normal, because we know that a little bit of bacteria and yeast live on our skin. The other one, the test that's, I think very much under-utilized is people commonly do urinalysis, but you doing a dry mount urine cytology, so once you spin down your urine, people are used to putting a little drop on the slide and doing a wet mount. Well, you can take one drop and spread it like a blood smear, dry it out and stain it, and all of a sudden, now you're not looking at that wet mount and saying, "Well, is that just movement or is that bacteria? What kind of bacteria?"

0:55:25.2 Erin Frey: If you do the dry Mount, and there's plenty of... You just have to Google, dry mount urine cytology, there's plenty of pictures and how to's all over the place, but you can really then see. You can actually see the neutrophils and you can see if you have rod-shaped or cocci-shaped bacteria, and then to be able to say someone, yes, they have urinary tract signs. I see bacteria. And there, to Jen's point, in the guidelines, we have amoxicillin and trimethoprim sulfa. Well, do I have rods, do I have cocci? You can not only decide whether you have bacteria and an infection, you have inflammatory cells in there, but what kind? And sort of in general, we know that usually our cocci commonly have staph, that's the most common, and then on the rod side E. Coli or maybe Klebsiella.

0:56:14.0 Erin Frey: So you can actually make a better empiric judgment about what to use just based on that really simple test. You can rule out other things really inexpensively, a fecal direct or a fecal float, maybe you do a flea comb and figure out it's flea allergic dermatitis. Maybe you do a SNAP test or some kind of in-house test for some of the other things like Parvo or Giardia. None of those are... I would say that the cheapest one is gonna be just your cytology, and that hopefully for most, not all people, but hopefully for most people, that's well within the range of what they can afford, and it can really shape both your treatments, but also then your confidence and then how you're approaching that conversation with the client, whether you can say, I'm seeing bacteria or I'm not seeing bacteria, I'm seeing signs of infection or inflammatory cells or not, you have evidence there to really say something about their pet.

0:57:11.5 Jennifer Granick: I couldn't agree more. I'm definitely a cytology cheerleader. [laughter] This is fun.

0:57:19.5 Katie Berlin: It does get fun. Right? It's scary when you're first starting 'cause you don't know what you're looking at, but the more you do it, the more fun it is, I think, and the more fun for your technicians to do too, because they're perfectly capable of reading cytologies. And a lot of them really, really enjoy it.

0:57:35.7 Erin Frey: Yeah, I was just about to say that. Here's a way that you can... The team can get really involved and you can... How many times have you walked in a room and the technician says, "Mrs. Jones is in room two," and I've already got the ear swab, and I can tell you on the

cytology that I see this well oiled team. [laughter] And a well oiled team, they already know that you wanna get the cytology. They get in, take the history, get the cytology, and by the time you're walking in the room, you already have that information to put together then with your physical exam, so I think everybody wins in that situation.

0:58:10.9 Katie Berlin: Absolutely, and it feels more... You have a certain amount of oomph behind you then in any of your decisions, which makes you feel a little bit less vulnerable, it's like what the client's gonna say, what your colleagues might say, what... Even if all of that stuff is not going as well as you hope it will, you can at least know that you're doing best by that patient, and that is ultimately so... It's important for our peace of mind. So, yeah, big fan of cytology too. I don't know if you guys follow Ashley Bourgeois, the derm vet on Instagram. She has a podcast too, and she has a hashtag she uses all the time, cytology everything, and so she's always posting pictures of cytology. She uses a toothpick to get inside the nail beds and pull out all the little yeast.

0:59:00.0 Erin Frey: Oh, nice.

0:59:00.0 Katie Berlin: So it's like...

0:59:00.9 Jennifer Granick: Oh my gosh, I love dermatologists, they're so enthusiastic.

0:59:07.7 Katie Berlin: Yes, anyways, if you're a cytology fan, go follow Ashley, but the two of you are just so passionate about this. I love it so much.

[laughter]

0:59:19.5 Jennifer Granick: I was gonna say, we surveyed veterinarians in Minnesota and asked about this issue of prescribing antibiotics when there's diagnostic uncertainty, and I think it's like, you gotta weigh the balance right, there's like, what are the consequences if the patient has an infection and I don't treat with an antibiotic, what are the consequences if they doesn't have an infection and I do treat with an antibiotic, and I think most veterinarians feel more comfortable prescribing in the face of that diagnostic uncertainty, and cytology is such like an easy, quick and powerful tool to help reduce some of that uncertainty so that you feel confident not prescribing or confident that when you prescribe, you're doing the right thing. So yeah, I just... I'm with all the derm nerds and the cytology.

[laughter]

1:00:14.7 Erin Frey: Well, and I think a point that I think we've kinda danced around but maybe not focused on, is the importance of figuring out what the underlying condition is, and to your point about the dog with the stones is that dog had an underlying condition that was not being addressed and that's the same thing with these dogs that over and over are coming back with skin issues, is they have an underlying condition. And so some of the other things we kind circle... Loop all the way back to preventive care and this is why we vaccinate animals, this is why we do senior middle aged to older lab work as part of our package of things that we do when they come in for their wellness checks. We wanna make sure that we're not just band-aiding what's happening as an end result of thing, but why? Does this dog have hypothyroidism or that's undiagnosed?

1:01:15.8 Erin Frey: Do we have atopic dermatitis, maybe this dog has a sensitivity of a certain

ingredient in the food, if we can kind of back up a few steps to what is the thing that's going on with this animal that puts them in a position of over and over again, having that situation, that's really what we want to address. And so to your point about the cost of diagnostics, is that's another thing to say. It's like, well, one way or the other, we're gonna spend money, and I think the best way that you could spend your money is really getting to the bottom of what's going on here, because my ultimate goal is that we try to fix the thing, and so you're not coming back over and over again. And we're figuring out the root cause, and that's really where we need to spend our money right now, so that we can figure out what's going on with fluffy so that you don't have to come back.

1:02:10.4 Jennifer Granick: Yeah, for sure. Doing diagnostics earlier can definitely be cost-saving and comfort saving, right.

1:02:20.8 Katie Berlin: Yeah. And it's not like we don't know what's gonna happen. It's not like we can be like, well, maybe just this once, the dog who's been in four times a year with this Pyoderma is not gonna come in four times next year. It's gonna come in potentially six times or eight times, or maybe next week, and we know that as clinicians, as technicians. We've watched all of this over and over again, the front office staff I know is like, yes, please find out what's wrong so that we don't have to deal with Mrs. Smith calling six hundred times wanting antibiotics and then having to tell her no. It affects the whole team's mental health as well, to practice this way.

1:03:08.2 Erin Frey: And I think the thing we say sometimes is, like you mentioned like this, it can be different, is to say, we know more now. Great, congratulations. Since last time we saw you, we know more now, and that can be the guidelines are out, or in the case of a young dog where we're not sure if they have a seasonal allergy or a food sensitivity. Now that we've seen them this many times, a pattern is emerging, right? So this pattern suggests to us that we should look more into allergies or look more into food, and we didn't... We couldn't really know that the last couple of times, 'cause they hadn't been in. We didn't know enough about them and what was happening, but now we have all of these visits and this information that you brought us about... She always is itchy in March. Okay. Well, let's do something with that information. Now we know more. Now, there's more we can do, rather than, we were wrong and now we... It's not that we were wrong, it's just we didn't... We didn't have the information that's the new research, the new guidelines, the new clinical signs, all of that is new information. So really making it a positive, now that we know more, this is what I would recommend today for you.

1:04:25.8 Katie Berlin: I love that. Sometimes time is a diagnostic too, right. So you both are fantastic and have so much great stuff to say, and I just love your passion for this topic, and I hope people will listen to this and then share it with their teammates no matter what their role, because really, you've outlined so many ways that everybody on the veterinary team, no matter what their role, can affect our future with antimicrobials. Antibiotics, we're helping them, but we're helping us just as much by thinking this way, and it's small changes over time, over and over again that are gonna make the difference. So thank you so much to both of you for sharing your wisdom and enthusiasm today. And thank you also for contributing to the guidelines because that is a fantastic piece of work, and I think it's gonna get a lot of use in the next however many years until it's updated again. So I really appreciate that.

1:05:25.9 Jennifer Granick: Thanks, Katie.

1:05:27.1 Erin Frey: Thanks Katie, this is great, really appreciate it.

1:05:29.8 Katie Berlin: Absolutely, and to those of you listening, don't forget to check out the guidelines, the 2022 AAFP AAHA antimicrobial stewardship guidelines are live now, they're free to download or look at online, and you can... There's also a really fun infographic that is also an animated video that you can download and give your clients or show your team, and it's all at aaha.org/antimicrobials. So be sure to check that out. Thanks to both of you again, Dr. Jennifer Granick, Dr. Erin Frey for joining us today and thanks to all of you for listening and we'll catch you next time on Central Line.