



VetTeamAMR: Responsible use of antimicrobials in poultry care

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Welcome to this VetTeamAMR podcast from RCVS Knowledge. Leading responsible antimicrobial use in farm, companion and equine teams.

Lucy: Hello everybody. My name is Lucy Coyne. I'm the project manager for Farm Vet Champions and RCVS Knowledge. Today I'm delighted to be speaking with Henri, who is a poultry vet with many specialties in chickens. I want to say welcome Henri. Do you want to give us a bit of an introduction to your background with poultry?

Henrietta: Yeah, of course. When I graduated, I went into mixed practice, first of all and was terrified of seeing chicken. If they came up on the screen, I'd be like, "Please, someone take this off me." But I think they're utterly adorable, so I went and did an internship with a commercial poultry firm, so my background is very much commercial poultry, but now I've got my own pet poultry practice and I teach pet and commercial poultry and medicine surgery to students in the University of Surrey, School of Veterinary Medicine, there. Come from commercial, morphed into backyard.

Lucy: Oh, that sounds really interesting. Do you find it challenging to treat backyard poultry in comparison to commercial poultry? Do you think there's a major difference in expectations between owners who keep their poultry as pets or farmers who keep commercial poultry?

Henrietta: Yes, major differences, but part of it is attitude and when I'm going on farm, if I make recommendations, it's generally going to be adhered to, otherwise when they get audited, someone's going to spot they've not listen to the vet, so usually I find farmers very easy to persuade to do exactly what I want them to do. Pets however, there's cost... Always going to play more of a thing, because chickens are particularly very stoic and they don't necessarily show discomfort, so you're trying to persuade someone that actually the bird really needs some pain relief and they'll be like, "No, she still runs for her treats in the mornings." You're like, "Yeah, but she hobbles away afterwards." So they are far more difficult to persuade to spend money, I find, on their pet birds, partly because they're a low value animal anyway. Also, because they're so stoic, they don't necessarily show the clinical signs.

Whereas on farms, you can see the water consumption. You see the data and far more birds represented, so yes, they're more difficult to persuade, but on the plus side, the

kind of owners that are prepared to take their chickens to a vet have already made that decision. "I am prepared to pay for my animal." So actually, there's a lot of self-filtering and I think it's frustrating sometimes to hear that vets assume that the client doesn't want to pay, because they're a cheap product effectively, a cheap pet. Whereas actually, I think you'll find that they're far more prepared to pay than you think they are, so I would never assume that, give them the costs, tell them what your full workout's going to be and see how they react. All they're going to say is no, or yeah, go for it.

Lucy: Oh, thank you. That's really interesting. From that, obviously, you see a lot of backyard poultry, what would you say are the major disease challenges? How do you think for practitioners, that the Farm Vet Champions Plan, Prevent, Protect principles, can really support them when they see chickens and they're probably like you were, "Ah, this is terrifying." How can we help to support vets that are seeing backyard poultry?

Henrietta: I think, a lot of it's going to be around knowledge and confidence, to be honest. I realize not a lot of us were taught very much at vet school, but if you are able to do a full physical exam on a chicken, you will spot abnormalities. Be aware that those clients are identifying what they think is abnormal, which may not be the most relevant clinical sign, to be honest, once you've examined it, but they've already Googled it and they've already put on a chicken forum and they've already had a hundred people say, "This is what's wrong. You need to go and get antibiotics." So you're having a client traipsing down to you going, "Oh, she's got..." Let's, for example, "She's got sour crop. She needs antibiotics or antifungals." And actually, you examine this bird and go, "Does she really?" She's actually got a large Salpingitis, which is like a bitch pyometra, but in a chicken passes solid.

Imagine a rock solid pyo in a little bird. They can get pretty huge. The reason she's got secondary sour crop, is actually because her whole body system's shutting down. This huge Salpingitis is crushing on blood vessels and it's restricting gastrointestinal tract. Now, we've got a bird presented to you that needs antibiotics with sour crop and diarrhea, when actually, it's got a huge mass of caseous material inside it, so if you can do a full physical examination and not be critical of what owners present with, but think, "Do I think this is a primary or secondary clinical sign?"

There's no point in throwing antibiotics at something with a huge mass of caseous material inside it, because it's just not going to resolve. It either needs to go for surgery or it needs to be on palliative care and put to sleep. There is no two ways about it. Antibiotics are not going to make the slightest difference. I think often from welfare point of view, that if you go ahead and you're not sure of how to clinical exam and you rely on the owner's symptoms and you treat symptomatically, you're potentially leaving a bird with a mass of discomfort and pain, being chicken abdomen, if you're treat it for sour crop or diarrhea. Actually, that's not the main problem. If you can do a full clinical exam, I think that's the most important thing. The rest, you can extrapolate from other species.

Lucy: Thank you. That's really, really helpful. Back in my days of clinical practice, I think the idea of doing a clinical exam on a chicken would be quite intimidating, but I think you've just made it sound like it's actually something that would be quite doable and you can

definitely then pick up those abnormalities. In terms of clinical conditions and stuff, one thing that I've heard of, and I actually have backyard hens myself and have experienced, is Mycoplasma. I just wonder whether you could give a bit of an idea on how the Farm Vet Champions principles and the modules as well, might help support that problem of Mycoplasma, which is something that I'm aware is... Vets may well think that is something that is a bacteria. How do I approach that from an antibiotics point of view?

Henrietta: That is, again, something you'll be quite commonly presented with, because it's the buzzword that pet chicken forms anything, "It's got to have Mycoplasma!" You are likely to be presented with owners who are expecting antibiotics as well. Certainly, and it's really, really well worth having a look at those farm red champion modules, because we do go very much into the plan, protect, prevent, and only some of it's relevant to farm. A lot of it's extrapolatable to pets as well. Although biosecurity, it's very important in the winter, they've influenza, but if you're thinking about these birds of free ranging people's gardens, they're being defecated on from above by wildlife constantly when they're outside, so there's only so much of biosecurity they can do, especially if you've got some show birds. They're going to shows. There's no biosecurity there.

That is more difficult to control, but I think once they've got it, you need to decide how you are going to protect those birds and ensure their immune systems are good enough to cope with it. When my little one... my young son has got a cold, I don't rush him down to the doctors for antibiotics instantly, even though there will be some sort of bacterial component in that, so what I do is make sure that he is wormed, well, he's not, but you know what I mean. He's not got any parasites. He's not getting parasites. He's had good nutrition. Now actually, he'll fight off the infection nicely. I might give him a little bit of and some Vicks, of course, as decongestion, but he'll ride through it as long as I support him. We need to get owners used to accepting that, particularly something like microplasma, that even if we treat it, it's only going to be temporary and they're always going to have microplasma. We're not going to get rid of it.

They need to learn to live with it, to be honest and live with the fact that their birds are going to be at some point, but they don't necessarily need antibiotics, so I'd go down the Plan, Protect, Prevent principle and have a look. How else can you support them? Make sure the immune system's good. Make sure the housing is good. Nutrition. If it's cold, they might need extra calories or extra warmth at nighttime. How are you going to support them? How are you going to clear their airways with decongestion? How are you going to give them anti-inflammatory, because it's the reason why they're making these strange rattling noises as well, or if they've got ocular disease. Make sure it's not an ulcer, as if you would with a dog, to be honest. There's still some of the topical preparations for dogs that you can put a withdrawal period on, so that's what I would suggest. Think all around the whole topic rather than just reach straight for the, because it's going to happen again.

Lucy: Thank you. That was really, really useful. I think that's definitely something that whether they're farm vets, mixed practice vets, or even companion animal vets that might be listening to this, that's really useful to actually start to think around and think how you might approach a sort of companion animal case, but for a backyard hen, for example.

Henrietta: You don't have to worry so much about the egg withdrawals as well, so there's one of the sections we talk about in the layers modular of Farm Vet Champions. It's about antibiotics and the categorizations and EMA, and which ones are licensed in poultry egg withdrawal, but you don't have to worry about egg withdrawals in pet poultry, so there's a modular of the Farm Vet Champions about...

Well, there's a section about antibiotics and it goes through what the different categories are and which products contain products that are licensed in poultry and what the egg withdrawals are, but you don't have to aim for something with a zero day egg withdrawal in pet birds, because as long as the clients are able to identify whose eggs are who's, which they can do nowadays. Chicken cams are a fantastic way of doing that, for example. Then it's okay if you have to use a product on the cascade that is still safe to use in a food producing animal, but you have to add a seven or 14 day egg withdrawal to it, because the client can identify which birds and they're not losing economic value like a farmer would.

You're not actually as restricted as you are as a farm vet. If you're a small animal vet, you're using things on the cascade.

Lucy: Oh, thank you. That's really useful. So vets can actually go and have a look at the Farm Vet Champions module for supporting, if they are having to use an antimicrobial, they think it's appropriate. They can actually go and choose something with an appropriate egg withdrawal and then work with the client to make sure that they know to dispose of eggs. Yeah.

Henrietta: Use it with the legislation on the allowed in food producing species and it's also got one at the bottom. This is prohibited, so no circumstances you're allowed, she's prohibited, but if you've got dog and cat medications in the practice and you think actually, if this is a dog, this is what I would give it. Look it up, see if it's on the allowed list, because if it is, then great, go ahead, but you must follow the MD's advice and the MD's got a good model, haven't they, on the Farm Vet Champions and make sure you apply appropriate withdrawal, but you don't always have to have the ones with zero.

Lucy: That was really, really helpful. Thank you. Another condition that came to mind then was Bumblefoot that I know can be quite problematic. Would you be able to give us some idea how the Plan, Prevent, Protect might be applied to Bumblefoot for example, in backyard poultry?

Henrietta: So Bumblefoot is pododermatitis. It's dermatitis of the footpad, really. It is a term that... It's not such a useful term to use, because there's no reflection how severe the disease is, so a bird with just a slight amount of ulceration, for example, technically it has pododermatitis, so that could be called Bumblefoot equally when the whole foot pad is swollen and you've got swelling tracking up the leg and infection, a huge coincide, then that's also called Bumblefoot. Different grades of pododermatitis are much better to talk about and Plan, Protect, Prevent definitely comes into it, because there's no point whatsoever in trying to solve a case of severe pododermatitis when actually, the clients got them on severely rough ground, inappropriate ground, because it's just going to come back or it's going to come back in another animal.

You've got to look at the husbandry. You really do around it, otherwise it's just going to happen again. It's not going to solve the welfare problems underlying, so it definitely comes into it and think about how necessary are oral and systemic medication compared topical. If it's something that's restricted only to the footpad, then use topical antibiotics in the footpad. I would only recommend someone uses oral. If actually you've got evidence that tracking up the egg risks septicemia, but if it's just a distinctly abscess that's encapsulated, then surgery, shell it out, topical should be adequate, really. Anti-inflammatories, of course, yeah. Meloxicam is a staple prescription of mine, because it does so much good.

Lucy: Yeah, no, that sounds really, really helpful. In terms of, obviously, you have your specialists backyard hen. What are those two that I just picked out there were things from my experience. From your experience, what are the common conditions that you see where you do use the Plan, Prevent, Protect principle, and have to think around, "How can I treat this without having to jump to antibiotics for day one? What sort of conditions do you see?"

Henrietta: I would say I would answer this question differently a long time ago when I couldn't do a clinical exam properly, so when I get a lot of referrals of nonspecific, poorly birds, for example, from other practices, but now I can perform a good clinical exam and you can really isolate what is wrong with that bird and you can persuade owners to perform ultrasound or from blood testing and things. It's much easier to narrow it down. Salpingitis, we've already discussed, of course. Peritonitis is another one, but I find quite a lot of birds referred to me with suspect peritonitis have already been put on antibiotics. For example, I've seen one this morning, actually. She had fluid in the abdomen and she was looking quite unwell. Quite fluffed up. She's underweight. Low body condition score.

If you dig into a history, she's an ex-rehomed, ex-commercial hen. I'm already thinking alarm bells. Hmm. It's all like to peritonitis and things. I questioned her about her nutrition, as well at home and actually, she's on quite a lot of mixed corn as they would call it. Now I ban the C word to my students, because you have no idea what's in that. Is it wheat? Is it maize? There may be nutritional differences between those two products and we actually will use whole wheat in commercial birds to slow their growth rate down, so if you've got already underweight, poorly bird who's being fed whole wheat, that's not going to help her gain muscle mass again. Digging around into the husbandry there, she was covered in lice... What are the bird presenting now? The whole flock has to be prevented from going the same way. We need better parasite control, better worm control. We need better nutrition.

There's a whole bunch of things that we need to protect the others and prevent them having to need antibiotics in the future. With this revealed that actually the fluid coming out was completely clear... Very pale, yellow and very clear and on just simple Diff-Quik staining. No bacteria in it. Peritonitis is not the underlying cause. She does not need antibiotics. Simple. There are other differentials at bay, but just not being frightened of working it up as if it was a dog. For the dog with ascites, you probably get some fluid out and have a look at it. You do the same with a chicken.

- Lucy: Yeah, so there's probably also room here. If you are a farm animal vet sitting in a mixed practice to actually use this... Take this podcast, go and look at the farm vet champions and actually work with your small animal vets to do that work and diagnostics. There's no harm in asking, is there, and working together as a practice. I think this is showing how transferable and the fact that vets are trained in all species, actually, how any vet can go and do that clinical examination and follow those sort of principles that you've been talking about. That's really, really helpful. Thank you.
- Henrietta: I'm looking at some of the examples of Farm Vet Champions about underlying husbandry issues that can be underlying. I realize it's abstract when you've got one hen being brought to a clinic, but there's nothing wrong with setting up a video call, to be honest, afterwards, and just getting them to show you round their coup and having a little look at the husbandry and their nutrition going, "Oh, I don't know why we keep seeing hens from yours that are looking this way." They don't have to go out and visit them nowadays. They can show you around by videos that you can really have a look at those underlying factors in the Farm Vet Champions that might be contributing.
- Lucy: That's really, really helpful. I think Covid's made the idea of video calls with vets and that sort of opportunity, a bit more commonplace. It does sound like a really good idea. You're talking around sort of management and the Plan, Prevent, Protect. Could you, just to summarize for us, what the key bits that you'd be looking at around a hen that's been brought to you or a telephone conversation with an owner. What is a vet would you be focused on management wise?
- Henrietta: Nutrition has got to be number one there and lots of inappropriate nutrition and treats. The volume of treats and what is given as a treat to, because these are very much large family members, let's be honest. They could very easily be living on bananas every day for, so questioning about that. Looking at legal aspects as well, so kitchen scraps for example, is not allowed. Thinking about those things too and if they are on kitchen scraps, it might be that they're having high salt content in their diet and things like that. Definitely nutrition, number one, parasites, two, because they are living outside, so we're looking at endoparasites, which can reduce calories as well. And we do have one pathogenic worm, but most of them are just calorie Hoovers and leave less for the bird's own immune system.
- For example, ectoparasites things like red mites cause a lot of anemia. I think owners forget. They think red mites, red blood cells, anemia. They forget. They're sucking whole blood. They're taking white blood cells too, so it's not really a surprise that they end up with immunosuppression as well as anemia. Certainly must address things like red whites and it's hard for owners to spot them because they don't live on the birds, so don't allow birds to come into the practice and go, "Oh, they've got no red whites. It can't be that underlying." They don't live on the birds. They've got to look in the environment. What is that? We've done nutrition. We've done ectoparasites, endoparasites, housing too. It is not quite the same when you're looking at non commercials, but you know, it is much easier to cook a chicken than it is to freeze a chicken, I'm going to say.

In the summer, we've got global warming, we got higher and higher summer temperatures, birds don't like being over 25 degrees Celsius. That's not comfortable for them. When open mouth breathing, they're going to be bringing in more pathogens and more things in the air, into their lungs and air sacs and their air sacs communicate directly into their long bones. It's not really a surprise that they're quite prone to things like joint infections. Trying to make sure the housing is suitable, they have enough ventilation. I think a lot of those really posh, pretty chicken coops... I call them chicken cookers. They don't quite have enough ventilation, really. It's not really a surprise that in the summer, we get quite a lot of a disease or other conditions, just because the birds are sat at night gasping for air and chicken cams, another really great way of seeing that, because you can see how they're acting in the wind, sorry, in the dead of night in the summer.

Lucy: I really like that idea. Chicken TV.

Henrietta: Yes.

Lucy: Yeah. Thank you. That's been really helpful. I think we've done quite a good whistle stock tour there of the important and as you say, the backyard hen phone call... That can be quite scary for some vets that are maybe not seeing backyard poultry very regularly. I think we've really sort of highlighted there where there's bits of the Farm Vet Champions that can be really applied, taken out that commercial context, but applied to the backyard hens. It's the same principles really as commercial poultry. Do you think there's anything else that is useful to say to people that might want to be going away and having a bit more of a think about backyard hens or possibly they've got one booked for this afternoon that's useful to know about?

Henrietta: I tell all my vet students to just shut their eyes and pretend the feathers are fur and just do a full exam. What a good tip actually can be if you're not used to it, is ask your receptionist. Whenever somebody calls up with a pet to book an appointment, make them bring another hen that's healthy, because it's much easier to play spot the difference than it is to identify an abnormality in something that you're not really sure what's normal, so get into bringing a healthy one. They can claim it's to reduce stress. That's fine. It'll make you sound very knowledgeable and you can have a quick feel of while she's here just to make. You'll be like, "Whew, actually there's a lump in one side. There's not a lump in the other one. Brilliant. I now know what the problem is." So you can very tactfully do that.

Lucy: Thank you. That sounds like a really useful tip actually. Yeah, I never thought about that. It's the same as when you might be looking at, as a farm vet, some calves with pneumonia, compare them to the ones that in the corner that have possibly got fewer signs and what is the ventilation difference? That kind of thing. You can see how that hen is looking compared to the well hen that lives in the same coop, so that's really useful. Thank you. I think I've kind of covered all of the areas. It was really good to get your opinion on. Is there anything else? Do you think that we should finish on here?

Henrietta: There's some brilliant links in those Farm Vet Champion modules as well. Things like the links to the EMA categorizations antibiotics, which your most appropriate first line ones

and the VMD. How would you decide on an appropriate egg withdrawal, for example. How do you use something on the cascade watch? How you should write a prescription as well is pretty useful on the websites and things too. RCVS Knowledge website as well, because I quite often find that a lot of vets need a lot of training on how to write appropriate prescriptions and labels as well for those food producing species that satisfy all that labeling. There's lots of information on there. The final website I'd say is that, is the link on the Farm Vet Champions module to the legislation about allowed substances and food producing species. I have it on my desktop at all times as a link and it's a life saver and it's so easy, because you can just search as well for whichever drug you want to look for.

Lucy: It's really useful to have those egg withdrawal and that legislation, because it might be some circumstances where you might be sort of grabbing for say, a that's got... Not an egg withdrawal on it, so it can't be used in any hens that lay for example. That sort of situation.

Henrietta: Yeah, good example or with a zero egg withdrawal. You might be very tempted to that, for example, but just remember, if you have any SPR resistance or resistance, that you're going to induce in the, for example, healthy gut bacteria of those birds. Those birds are family pets. They're being cuddled by their owners, their children, their family members, their neighbors... You've potentially got immunosuppressed cuddling them or you might have some family members who alert it to amoxicillin naturally, maintaining their response options to things like Colistin is really important, so don't forget that whatever you give is not just finishing when the bird excretes the product. They are going to be well handled and there's no biosecurity when you've got small children cuddling chickens, they're not seated and booted. It doesn't just end there. Do you think about, down the line, what am I exposing these owners to that I'm going to give this food producing animal.

Lucy: Yeah, thank you. I think that's a really good note to finish on actually. Just our thinking about our responsibility of antimicrobial use, as well as the Plan, Prevent, Protect. We don't want to get to that situation where we are having to reach those antimicrobials and we can follow your advice through the Farm Vet Champions content and through this podcast. I think we can make everybody much more confident when they do have that phone call about that backyard hen or maybe even that backyard turkey. We've got fantastic turkey module as well...

Henrietta: Yes.

Lucy: ...that'll help support...

Henrietta: Yeah, it is good and if you want to reach for anything, reach for a nonsteroidal instead.

Lucy: Fantastic. I think that's a really good place to end. Thank you very much for your time, Henri.

Henrietta: Pleasure Lucy.

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