

Knowledge Natter: RCVS Knowledge Award Antimicrobial Stewardship Winner Tonia Simms, BVSc DBR MRCVS, on Antimicrobial use in Surgical Calf Castrates

RCVS Knowledge:

Welcome to this Knowledge Natter by RCVS Knowledge. Here, we have friendly and informal discussions with our Knowledge Award champions, and those who are empowered by quality improvement in their work. Whether you're a veterinary surgeon, veterinary nurse, receptionist, or member of management, quality improvement will, and can, positively impact your everyday life. Listen and be inspired.

Fiona Lovatt:

So hello everyone and welcome to RCVS Knowledge Natter. I'm Fiona Lovatt, and I'm the Clinical Lead for Medicines. And, today, I'm interviewing Tonia Simms. And I'm going to let Tonia introduce herself. She's one of our award winners for the Quality Improvement Awards.

Tonia Simms:

Hi, my name is Tonia Simms, like you said. I am Clinical Director at Hampden Farm Vets in the Home Counties. I am a 100% farm animal vet, working in largely beef and sheep areas. Oh, and I'm a Farm Vet Champion.

Fiona Lovatt:

Brilliant. Yes, so that's how I really know Tonia. It's because Tonia is one of our Farm Vet Champion Ambassadors and does absolutely loads for antimicrobial stewardship. But, today, we're going to talk about your calf castration. It's still antibiotic use, so it is all relevant. But tell us a bit about the audit, Tonia, how did it come about?

Tonia Simms:

So this is a piece of work that I did within my practice anyway, but I submitted it to the RCVS Knowledge QI Awards, and won Antimicrobial Stewardship Champion through it. So had a conversation with our team about where we could, within our day-to-day practice, and things that we were doing, not necessarily what farmers were doing, but what we were doing, and where we were using antibiotics. And what would be an easy thing to audit and to assess what our current usage was? And could we look to refine our use of antimicrobials?

So there's been a lot of movement within the industry, farming and vetting, to reduce antimicrobials for elective procedures, of which calf castrations would fall into that. And especially with a lot of the bigger buying groups, calf rearing groups, now, they are reducing their antimicrobial use. So rather than doing a research project and being like, "What can we implement to reduce?" I just wanted to take it from, day one, what antibiotics are we using? How are we using these antibiotics? Is there a reason behind our use of antibiotics? And do we think that is an appropriate level of antibiotic use? Or can we empower our vets to reduce the use?

Fiona Lovatt:

And then so, practically, what did you do about doing that initial audit?

Tonia Simms:

So I interrogated our practice management system, and I literally searched for the word 'castrate' under our farm clients. I then removed any non-bovine species. And then, literally, looking in both clinical notes and fees. Because our fee structure changed halfway through the year so I did have to do quite a deep interrogation.

Fiona Lovatt:

It's always more complicated than you think, isn't it, doing that sort of thing.

Tonia Simms:

It always is, yeah. I thought, "Oh, I'll just put it in a search box." But, no, it didn't work like that. But then I exported it to Excel. It was actually very simple, just time consuming. I literally went through and when there was a castrate mentioned and, hopefully, with the number that were castrated, I listed them. I then looked to see whether antibiotics had either been prescribed or had been written in the notes, and I put a 'yes' or a 'no'. And then if any non-steroidals, so I also assessed non-steroidal use and local anaesthetic as well. So, again, that was a 'yes' or a 'no'. And then my last column, which was basically if there were antibiotics used, was there a reason behind it? So was there a justification behind the antimicrobial use, or are people just using it because they think they have to?

So I did that and I tallied it up. I then broke that data down into vets to see if there were differences in the vets and their prescribing habits. And like I say, if there were antimicrobials used, I then listed and ranked the reasons behind antimicrobial use in those cases.

Fiona Lovatt:

Brilliant. So you presented this at BCVA just this October just gone, and you presented 2021 and 2022 data. But I understand you're carrying on, you've still got '23 data now, have you?

Tonia Simms:

The application was submitted a year ago, as you just reminded me. So the award came for the data from 21/22, so from May 2021 to the end of April 2022. So subsequent to submitting it, I then audited the next year, from 2022 to 2023. And then, yes, I presented the updated data at BCVA. In '21 to '22, 88% of our castrates did not receive antimicrobials, so only 12% did. And largely because of a dirty environment. Or if, for example, there was a bleed and a ligature had to be added, some sort of foreign material had to be put into it. Or a rig, again, so more intensive. 99.5% received non-steroidals and 100% received local. So I was very proud of them about that. There was a large variation between vets as to who was using antibiotics and who wasn't.

So we sat down and we had a chat, the whole team together, and discussed why we would be using antibiotics and why we wouldn't. Bear in mind, this data set was over 700 castrates performed in the year. So it was a robust amount of data there that we could have a look at. So like I said, I went back on the 22/23 data, and showed, I think it was an 8% reduction in antimicrobial use. So it was our-

Fiona Lovatt:

I'll help you with the figures. I've got them in front of me. '21, there was 11 and half percent given antibiotics, so about 12%. And in 2022, 4.6%. So reduced from, pretty much, 12% to 5%.

Tonia Simms:

Yeah. So I did a... Well, I got my friend to do a little bit of stats on that, so that was proven to be significantly different. I looked at it and thought, "Oh wow, that's brilliant." But then I just wanted to prove it was brilliant. So that was statistically significant, which I just was blown away by, really. It just shows that having that data, and then having the discussion, it empowered people to withhold antimicrobials. So it just lets people have a conversation with clients saying, "Look, I don't see there is a need for this. Okay, you might automatically want to give a long-acting shot of penicillin, but there is no reason for it." And, again, I did exactly the same thing, and looked at the reasons behind it. And the reasons behind when the antibiotics were used, it generally was if it was a cryptorchid.

Fiona Lovatt:

And, arguably, none of us should have a problem about there being cases that we're less relaxed about. And there are good reasons, or higher risk cases, where it's perfectly reasonable to give antibiotics, isn't it? And I don't think we should be concerned about that in any way.

Tonia Simms:

Yeah, no, it is purely about refining use, as opposed to banning use. Yes, I agree completely. And, yes, I didn't chastise anybody for using antibiotics. It was just providing evidence that you don't need to. And some people, the client would say, "Oh no, we always use antibiotics." And having the data showing that you don't need to... And granted, it was an audit, it wasn't a full research project. I didn't follow up specific complications rate. But we didn't have any negative feedback from our castrates within the years because all our complaints are logged anyway. So I checked our complaints logs and nothing came back. And, okay, they might not have told you every single one, or they might have given the jab of antibiotic later without necessarily telling us. But there was no obvious, "Oh my god, these 600 castrates that didn't use antibiotics suddenly got complication rates." So just having that data there, just is an extra confidence giver, if that's the right word.

Fiona Lovatt:

And so getting the team on board is always a big part of it. Has that been a good experience, generally, within the practice? Has it enhanced relations, generally, or is everyone thinking, "Oh, Tonia, what's she going to make us do next?"

Tonia Simms:

Well, they think that every day anyway. I think so. I don't think they were quite as excited about the data as I was, but then I'm very data-driven, and they're maybe not so much. I'm very lucky, we've got a really proactive team, relatively young. That shouldn't mean anything, but I guess it means they're open to suggestion and are very willing to discuss different ways of doing things. Always striving for best practice for both an individual animal, a herd, or the industry as a whole. So really keen to offer the best possible service for everyone, really. So these clinical governance type discussions, they do really get involved with, be it audits, or significant event analysis, that kind of stuff. Everyone's really keen to have these discussions and move the practice forward.

Fiona Lovatt:

Okay, that's brilliant. And if that's how it's enhanced within team relations, and particularly since presenting this at BCVA, or actually wider within the VetPartners Group, have you had external positive conversations about it?

Tonia Simms:

The first one would be with clients because that's our day-to-day running. So it's always good, again, it's having that proof behind. A lot of clients are difficult to influence and to change habits that have been going on for a lifetime. So for them to recognize that we are trying to do something to refine our antimicrobial use, suddenly makes them sit back and think, "Oh yeah, actually, maybe we can do something else." Alongside, we do the Red Tractor mastering meds courses as standard, but then we also do... I've done a more pharmacological... Is that the right word? Like this is why we use these antibiotics, and let's look more at resistance, and the way that the antimicrobials work, to understand the resistance and how we are potentially promoting resistance or otherwise. So it's definitely getting the idea out there that we are looking more deeply at why we're using antibiotics. So that has worked really well.

With regards to VetPartners, so we are a VetPartners business. They've just submitted their annual Antimicrobial Stewardship Report. And, actually, the farm data is really lacking. We've done a caesarean audit as a whole group for the last four years, probably, now. And that data is being looked at. But apart from that, there's very little data available. Because the difference in practice management systems, trying to standardize data is very tricky. So that's a long-term project. And, hopefully, if individual practices are doing audits like that, that can be something that we can filter through to the rest of our partners. And granted, we might not be able to compare outputs from our PMS systems like for like at the moment, but long-term, there should be a decent data set that we can compare. Half the issue, actually, is getting people recording the correct data on the PMS system. But that's an ongoing challenge.

Fiona Lovatt:

Yes. So it's a challenge at the level of the farms, but also at the level of the vets in some cases.

Tonia Simms:

Yes.

Fiona Lovatt:

But it's a challenge that we are making progress with. And you and I have talked about a lot about putting data onto the Medicine Hub. You're making progress within your practice. And

we are, with a number of other different practices, with people gradually getting farms submitting their own data. So we are getting some data together, which is exciting to see, yes. Okay, so what's next for Hampden Vets in terms of-

Tonia Simms:

Well, I'm obviously going to continue my castrate audits, although I imagine after that massive drop, it'll probably plateau now. Because, like you say, 5% antimicrobial use is probably appropriate because there will be cases that need to have antibiotics administered.

I want to look at obstetrics next. So much to the disgust of some of my colleagues, I am severely dropping the amount of antibiotics that I use, whether obstetrics or uterine prolapses, that kind of thing. And they are aghast at times that I don't use antibiotics. But, again, we don't know what our current level is. And it's a lot more difficult because a castrate is very black and white, "did you or didn't you?" Okay, you can bring in, is there dirt or whatever. But with obstetrics, for example, and lambing, it is, "how long has it been lambing for?" "Were the lambs dead or alive?" "How much intervention was there by you?" "Did it have twin lambs?" "Did it have hypercalcemia?"

There are so many more variables, so it will be more complicated, but it's still worth looking at. And like I say, it's not a research project, it's an audit. So it's literally, how many have we seen? So I think that's going to be my next one. And I should, well, in theory, I could get three years' worth of data pretty easily from the practice management system if I have time to have a look at that. But, yeah, as, obviously, it's coming up to lambing and calving now, so it might be a summer project. But yeah, that's my plan next.

Fiona Lovatt:

Okay. Oh, that's brilliant. And, meanwhile, you've got the ongoing project of getting farms on the Medicine Hub, which is something, and encouraging the team. You've been a great Farm Vet Champion Ambassador for us, flying the flag, encouraging other people to jump on board and make use of the free CPD. And the other thing you've done within the practices, it's not just you, you've got your vet tech and team members involved as well, which is really encouraging to see, to bring them on and give them a bit of... I suppose it gives them the ability to do their own thing, and create their own little project, which is always encouraging for team members. So thanks ever so much, Tonia. Anything else you want to tell us?

Tonia Simms:

No, I think that's it. Apart from, if anyone wants to chat through any audits they're doing, or any way they can refine antimicrobial use, then I am more than happy to chat through with

anybody, if anybody wants any help or just to run ideas off me, more than happy for anyone to contact me.

Fiona Lovatt:

Oh, that's brilliant. That's very kind. Thank you. Because in the farm world, the whole QI and auditing is, we are slightly behind our colleagues. And so that's really great to hear you say that. And maybe we'll point others in your direction. Thank you very much, Tonia.

Tonia Simms:

Thanks. That's a pleasure.

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