



## **Knowledge Natter - The School of Veterinary Medicine, University of Nottingham.**

Pam Mosedale, Marnie Brennan, Kate White, Julie Gibson and Emma Drinkall

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 are a veterinary surgeon, veterinary nurse, receptionist, or member of management, Quality Improvement will and can positively impact your everyday life. Listen and be inspired.

Pam Mosedale:

Hi, everyone, and welcome to this Knowledge Natter. I'm Pam Mosedale, I'm QI Clinical Lead at RCVS Knowledge, and I'm delighted to be speaking with some of our brilliant 2021 RCVS Knowledge award winners.

Pam Mosedale:

Today, I'm talking to the team from University of Nottingham. This champion team won a Knowledge Award for integrating QI and EBVM into the curriculum for both undergraduate and postgraduate students. They do this in a novel way, which has been informed by a research-led agenda, focused on the application of Quality Improvement and evidence-based medicine into veterinary clinical practice.

Pam Mosedale:

Embedding QI in the curriculum is a comprehensive way and an important introduction for students to see the benefits that QI can bring to their future careers.

Pam Mosedale:

The leader of the team is Marnie.

Pam Mosedale:

Marnie, could you introduce us to your team from University of Nottingham, School of Veterinary Medicine?

Marnie Brennan:

Absolutely. Sure.

Marnie Brennan:

So, thanks very much, Pam for talking to us today. My name's Marnie Brennan and I'm a lecturer in epidemiology here at the vet school, and I'm also director of the Centre for Evidence Based Veterinary Medicine.

Marnie Brennan:

So I'm practitioner by background, who somehow found herself in research and teaching.

Marnie Brennan:

And we've got three other team members with us today.

Marnie Brennan:

Kate, do you want to introduce yourself?

Kate White:

Yeah. Hello, everybody. My name's Kate White I'm professor of Anesthesia and Analgesia and the Clinical Director at the School of Veterinary Medicine.

Kate White:

I'm a veterinary anesthesia specialist, and early on in my specialist training, I realized the significance of non-technical skills and QI in my work in influencing patient outcomes. For example, the team dynamics in theater and the whole functioning of everybody. And I was certainly involved in the development of anesthesia checklists and disseminating those through the Association of Veterinary Anesthetists.

Kate White:

And then when I returned to academia, I realized that I was very keen on not only teaching content, but also teaching things like patient safety, error, the systems, and the communication as well, to the undergraduates.

Kate White:

I'm going to hand over now to Emma, who's another one of my colleagues.

Emma Drinkall:

Hello, everybody. My name's Emma Drinkall, and I am an assistant professor here at the University of Nottingham and I am the module convener, so I oversee the logistics of a module called Veterinary Professional Skills for our, was year four, now year three students, where we see some of the QI elements rather than being hidden in curriculum, overtly put in their teaching.

Emma Drinkall:

But full confession. I am a Nottingham alumni, so I was molded by Kate and Marnie.

Emma Drinkall:

So I was part of the early cohorts that came through Nottingham. I was in the first couple of cohorts, so I was present at the beginning when there was this early element of QI in my own training, which has

followed me post graduation into clinical work as a mixed vet and a small animal vet who, as Marnie said, has ended up and found themselves in a position enjoying research and hugely, education.

Marnie Brennan:

Thanks, Emma. And we won't hold it against you... You were an undergraduate with us here. Absolutely not.

Marnie Brennan:

Julie, do you want to introduce yourself?

Julie Gibson:

Hi. Yeah, sure.

Julie Gibson:

So, my start was slightly different in that I am a clinically practicing vet, and was for 15, 16 years in first opinion practice before, I'll use Emma's words, being taken under the wing by Marnie and Kate at the University of Nottingham. And I'm now doing a PhD and I'm exploring the concept of culture in the veterinary profession, which is something that we'll perhaps come back to a little bit later on in our discussions.

Pam Mosedale:

Thank you. Great.

Pam Mosedale:

Marnie, I know that you've been at the forefront of evidence-based veterinary medicine at Nottingham for quite a while with your wonderful Center for Evidence-based Veterinary Medicine, and I know that right back in the early days of the evidence-based veterinary medicine, postgraduate course, I was one of the people who was involved with you then. But when did you get interested in actually putting Quality Improvement into the undergraduate curriculum?

Marnie Brennan:

Yeah, that's a really good question, Pam. And I suppose we are thinking about it as altruistically as we can. I would argue, we've probably have had things there from day one really. We've always had communication and the importance of that both from a client perspective, but also within the practice setting as one of our big things and something that's been embedded in the course from the start, so informally and formally.

Marnie Brennan:

And I guess that's one of the advantages of setting up a course from scratch. We're able to look at the overview of it and say, "What is it that we actually really want here?" And I guess we could argue that that's also... We managed to embed it and have it in lots of different places across the curriculum.

Marnie Brennan:

Because of this, I guess we've got a fairly good culture within the vet school here in terms of communicating with each other about what's on, and I guess having a real appreciation for what's going

on across the curriculum as well. So making sure we're making it as best as we can be and as fit for purpose as possible, but then also going through this process of constantly improving it as well, making sure that we're keeping up to date with what's current and what's going on out there.

Marnie Brennan:

And I think also, a lot of the QI that we have in the teaching has come as a result of the research we've done too, so post-graduate research. I think that's really important because obviously the research that's going on is the most current, up to date thinking of anything, any topic.

Marnie Brennan:

So really fortunate that we've had some great PhD students over the years being able to come out with some really interesting findings, and really useful things for practitioners that we can embed into our teaching and use that moving forwards.

Marnie Brennan:

So it's infiltrated everything and I guess we've had it in our minds from the start, really, I would say.

Pam Mosedale:

And you certainly are at the forefront with all your QI research, but I was really interested looking at the undergraduate course that these things are covered right from the beginning. Is that right?

Marnie Brennan:

Absolutely. So if you have a look at our undergraduate course, and I suppose this is maybe one of the reasons that we are successful with this award is because we've tried to put it across everything.

Marnie Brennan:

Again, I don't know whether it's worth at this point, talking about how our course is structured a little bit.

Emma Drinkall:

Yeah. So we have a five year curriculum, which is broadly split into two parts. There's two degrees.

Emma Drinkall:

There's the Bachelor's of Veterinary Medicine and Science, and then the Bachelor's of Veterinary Medicine and Surgery.

Emma Drinkall:

So the first three years is that first degree, which is preclinical, and then the second tier makeup that more clinical part of the degree.

Emma Drinkall:

And all the way through each year, there is a consistent module described as Veterinary Professional Skills. So that's present from day one, year one, right all the way through to graduation. But then around those, we have essentially systems-based teaching that we deliver to students. And so, QI and it's

integration into the curriculum, it has those places, as I've said, in Veterinary Professional Skills where it's really at the forefront perhaps, and very clearly sign posted.

Emma Drinkall:

But it's also present within most of our other modules really. Actually, it's drip fed all the way through. So they're learning things like communication skills, evidence-based medicine. So they're learning about appraisal of sources as early as year one and year two. They're doing research projects, which are informing them on critique of studied design, evidence synthesis, things like that.

Emma Drinkall:

And then really, we are building that background all the way through really years one to four. And then they'll come to year five, which is really Kate's arena.

Kate White:

Yeah. So the final area is obviously lecture-free, and our students rotate through community-based rotation. So it's workplace based learning, we call it, and they are based in these practices. And there's a very strong emphasis on a lot of the QI skills and tools that they've acquired earlier in the course, particularly in the professionalism modules embedded in these rotations in the final year. So we like to think that we've got that continuity right through the curriculum and that they can start to put it into practice in the final year.

Kate White:

In saying that, I strongly believe, and I have got some evidence for this that they need to experience being a vet before they can really understand how important QI is. So we can teach it and we can give them a framework, but they've got to have a degree of experiential learning to really realize how important it is, if that makes sense.

Pam Mosedale:

It absolutely does. I think you're absolutely right, Kate, and that can be a problem with getting students to engage with something like QI. How do you try and address that problem?

Kate White:

I feel we... Emma's phrase of drip feeding them. I think we've drip fed them for five years. So I think there's no escaping from it. I think that really is our superpower, I suppose, for embedding it right through the curriculum. They can't dodge it, so hopefully some of it has gone in.

Pam Mosedale:

And they'll have the resources then, won't they? When they're out in practice and find something goes wrong, or whatever, they'll have those resources available to fall back on. That's the important thing.

Emma Drinkall:

I think looking back on my time as a student, which to be fair, was a little while ago now, and for me, certainly, there was role modeling as well. Those clinicians and staff members all across the course were demonstrating the value of it and the importance to them, and I respected them and wanted to emulate them. So therefore, in a way, it became part of what I wanted to be as a vet.

Emma Drinkall:

So I do think there element where I can remember certainly going out on final year rotations and seeing University of Nottingham staff, clinical associate staff, and beyond into extramural studies actually as well, seeing clinicians that were modeling this and thinking, "I need to keep hold of that."

Pam Mosedale:

Absolutely. And your students seeing it as part of the normal day of clinicians working, not as a separate subject, but as part of a normal vet's day.

Emma Drinkall:

Yes. And in the module that I lead for the fourth slash third years, they see it as part of their understanding of how a practice works. So we're delivering teaching around how does a practice operate, so looking at it as a business.

Emma Drinkall:

And I think when you're saying about the challenges of student engagement or our understanding, it's a little bit part and parcel of that module. So sometimes they've come to vet school, they don't want to learn about business management or the operation of a practice. They want to be able to put catheters in and that kind of element, but by giving them really active tasks and getting them to go through things like, "Okay, when would an audit be useful to you as a new graduate? What tools are out there to support you?" And building a story really around it, often I've found has been helpful.

Emma Drinkall:

So an example would be of evolution. Those stories historically have been, they're the boss running a practice, and they're going to run a clinical audit with their, team and they write it, and present it. And it's part of their formative assessment in curriculum.

Emma Drinkall:

As we evolve that through the new context I'm giving, it is integrating it with practical skills. So the current third years will look at a session where it'll be integrated with aseptic technique scrubbing, and that will be linked to a story around patients post-surgical outcomes. And so they'll really see the process of clinical audit and how an audit is structured and delivered, but also they'll have that story of, this could well have been something that's seen in many practices around the place.

Marnie Brennan:

I was also thinking that it's also the wider skills as well in terms of things like management and leadership too, which fit really nice with a lot of the business chat that goes on later on in the course.

Marnie Brennan:

But also we are coming at QI from lots of different perspectives, aren't we? From you as a new grad in a practice, maybe you as that practice owner, maybe you as a manager of that practice, so I think by having a look at it and lots of do spectrums, I think it, again, makes the point that this stuff's important, doesn't matter what you do and what position you hold in that practice.

Pam Mosedale:

Absolutely. And throughout your career, you can use QI and you might use it in different ways at different times. Yeah. That's really interesting.

Pam Mosedale:

And how do the students enjoy this? Do you get good feedback from them about their QI sessions?

Kate White:

Yes. It was Emma, I think, that said, they're very interested in content. They want to learn about diseases, and diagnosis, and practical skills. So sometimes they don't rank the QI as highly as they rank learning about a disease and how to perform a surgical procedure.

Kate White:

So it's sometimes difficult to get really good feedback about the QI aspects of it because in their minds, it's not as important. But I think the penny does drop towards the end of fifth year, the final year. They realize actually it's probably more important than anything, because nowadays, we have so much knowledge, so much so it's exceed, did our capacity to retain it.

Kate White:

And in a way, we should be teaching that you can look most things up. But the QI should probably be more important than anything, because if you've got that framework, you can go and look anything up, and your outcome will be then superior.

Kate White:

So I think it's trying to get that across to them. That again, there is a degree of them having to go out and experience the real world before the penny drops.

Pam Mosedale:

Absolutely. And I think for the profession, generally, it's been that QI has been perceived as less exciting than clinical CPD. But as you say, it's just so important.

Pam Mosedale:

Julie, interested I'm interested in your PhD. Can you tell us a bit more about that?

Julie Gibson:

Yeah, well, I'm doing my PhD exploring culture in the veterinary profession. And just listening to everyone else's discussions here, I think I probably represent a large proportion of the profession. Maybe not. Maybe I'm a bit of a dinosaur now.

Julie Gibson:

But I was in practice for a very long time, and it took me that time to really see the relevance of the Quality Improvement aspects of what we do, but it was those personal experiences, things that I witnessed in practice that really drove me to start the PhD in the first place. So I think that really highlights how important it is that students are being taught it now.

Pam Mosedale:

I think Quality Improvement can have a positive effect on practice culture, when people are listen to their team, find out what the issues are, and are open to measuring things. What do you think, Julie?

Julie Gibson:

Yeah, I think absolutely. You're right, Pam, but I think sometimes we think of it as a bit of a unidirectional thing and these concept is very separate. We talk about culture, we talk about QI, and we're quite good at labeling things which is necessary, but they are absolutely interlinked, and it's so important that the process element is there to nurture that culture.

Julie Gibson:

But actually, also it's important for the right culture to be there so that those processes are taken up and people really engage with them so that learning can happen.

Julie Gibson:

So, absolutely. It's really complex how those things kind of link together.

Marnie Brennan:

A human element comes into it a bit, doesn't it? The, yes, we have to do all these things at a maybe formalized structured level, but actually at the end of the day, it's about communicating with each other and talking to each other and understanding different people's perspectives and what impact that's going to have on the cases, and maybe even in the outcome for those cases. So yeah, it's all of that together, isn't it?

Julie Gibson:

And I think that's where the students, and some other people can correct me if I'm wrong, because you've got much more experience of teaching the students than I have, but where that engagement can really come when they realize that it does actually impact them when things go wrong. And so having those processes in place where it helps them to deal with that and, move on is the wrong word, but get something positive out of it or make it a less negative experience is really important, so that can help them to engage with it and understand that concept a bit more.

Emma Drinkall:

I'd agree with that, Julie. I don't know if Kate has seen the same, but I've seen a lot of clinical year reflective portfolios where the students have free choice over the description and analysis of an experience, and that's where I think I see I might talk about audit cycle year three or year four, but actually as Kate says, there's that experiential element that they're starting to get through their rotation year. And then you see that engagement. You're not forcing them to write a reflective essay on their experience of QI, but they're voluntarily coming out with it quite frequently in the portfolios I read and see.

Pam Mosedale:

That's really encouraging. And Kate, you mentioned non-technical skills and how do you try and get your students involved in those? Because again, that's something that they're going to appreciate more once they're qualified.



Kate White:

Yes. It's a difficult topic to address. Although I feel as an anesthetist, I've got a little bit of an advantage because there's lots of scenarios where we can embed it in our role play, or embed it in some teaching, and demonstrate it quite easily. So, it sits nicely with the anesthesia and analgesia teaching and certainly, communication skills, hierarchy, mistakes, calling out errors, it's all possible in the perioperative time.

Kate White:

So we often teach it around scenarios in the theater, so that works really well.

Kate White:

We're also trying to encourage the students to embrace uncertainty because there's quite a lot of QI that links in nicely with that, and trying to get them away from just wanting a single right answer about every thing. And again, developing flexibility through their final year rotations, we push embracing uncertainty quite a lot. And we also like them to think about always looking for difficult situations to try and reflect on, to practice their non-technical skills around.

Kate White:

So there's lots of opportunities, but it is this constant need to try and encourage them to embrace QI aspects rather than just focusing on content and clinical skills, which is what they ultimately love and they thought they were coming to vet school to do.

Pam Mosedale:

Yes, but they'll find out how important the rest of it is. But certainly, we've all had to certainly, embrace uncertainty in the last couple of years. How has it changed from when you started to embed QI into the curriculum, going forward? Has anything changed?

Marnie Brennan:

Yeah, I think it has, it has absolutely. I think maybe a little bit in terms of what we've decided to put into the course, but then also more about how the teaching happens and almost the depth to which you go with it as well.

Marnie Brennan:

I think in that comes with experience. Understanding even for all of us the process of teaching this, there is an education of us at the same time, of our team who are teaching this. In terms of not only just more information about QI, there's more research that's been happening in QI, so we're all learning at the same time. But then also really understanding the best way to communicate this to our undergraduate students, and post-graduates too, really.

Marnie Brennan:

So as Emma said, it's not only about going, "You're being taught QI now." It's also about doing QI, but as part of other activities where it's just there and it's happening all the time. So understanding that that's a really important way of making it happen.

Marnie Brennan:

So it's more around how, but again, Emma's just done quite a lot of rethinking for the new third year module too, in terms of the teaching, along with our dual cohort change, actually with the way that we're doing our curriculum now.

Emma Drinkall:

Yeah. Well, it's always part of the process that there's constant curriculum review and evaluation. With the dual intake, I just had a bit more opportunity in this present review.

Emma Drinkall:

So what happened was my fourth year module that I used to lead was really about practice management and focused around business skills. And the module that we've been reviewing and looking at more recently for the third year students is a longer module, a bigger module. It's five weeks with students. And what we did was we took those weeks and divided them into themes.

Emma Drinkall:

So for example, the first week is all about consultation and communication skills. The second week is about compassion for your patients, your clients, yourself, and your teammates, and so on, through to careers and business skills. And then ultimately, they finish with a consolidation week, bringing it all together.

Emma Drinkall:

And I'd mentioned that we have, for example, we are giving them the idea of let's practice doing scrubbing, because we know that we like doing clinically clear and linked skills, but using that as a way of giving context and value to that process of understanding why a practice might be doing a clinical audit, how it might reveal something, how it can empower them.

Emma Drinkall:

But throughout that, as I said, coming from the Nottingham system, we're doing things as well, where it's a little bit more hidden. So for example, the students are working in a team. So they're going to develop leadership, they're going to develop teamwork, and they're going to develop their communication skills with their peers.

Emma Drinkall:

And in some elements, we've given them sessions where that's guided, defining roles and responsibilities, and then in other sessions, I'm very glad to have Kate helping them with a session which we've described as team working under pressure.

Kate White:

Yeah. So what we're aiming to do, Pam, is we've already taught them the nuts and bolts, for example, of CPR, using the recover guidelines. And then what we're doing is we're putting this into practice and we allow them to try and do some simulated CPR sessions without any real structure and framework. And then we build it up over a morning where we actually do start addressing assigning roles, communication, hierarchy, feedback loops, and how we communicate within the team.

Kate White:

And by the end of the morning, the difference it has made in how they undertake a CPR scenario, it's mind blowing, and I think they can't believe how much better they are by the end of the morning. So it's quite a structured way of doing it, and I think it works really well around CPR because that is a high-stress scenario that they are all worried about. Almost all of them have seen something on ENS where it has gone wrong, and so it's an ideal opportunity to train them in all these aspects in a very controlled environment.

Pam Mosedale:

I think simulation is a really useful way to teach, isn't it? Do you have any other areas where you use that?

Kate White:

We do quite a lot of checklist simulations and our biggest challenge there is getting everybody on board to do it. And trying to educate them around the buy-in is the biggest stumbling block that we find, and how to get people who don't want to use a checklist to buy in. That's certainly quite a good scenario that I'm used to doing when I'm the reticent surgeon who doesn't want to use the checklist.

Pam Mosedale:

That's really good practice for being out in practice, isn't it, because not everybody's going to suddenly take these things on board?

Emma Drinkall:

Yeah. And they get their communication simulations as well. So they're doing communication simulations from year two into year three, and then through to year four, and year five. And we do have more simulation ideas coming. So we've got things coming down the pipe, which hopefully we might be able to share shortly.

Pam Mosedale:

Sounds exciting. I think it's reasonable for students going into their interviews for their first roles to actually ask practices if they do these kind of things, if they have practice meetings, how they communicate. What are your opinions on that?

Marnie Brennan:

We've had discussions before about how actually in terms of jobs and being in positions in practices, actually it's changed how you've thought about that practice in terms of whether they engage with some of these processes or not at, again, different levels. So I don't see why it's not something you can't talk about in an interview. If it's something that you're going to be actively looking for in a practice, then why not?

Emma Drinkall:

Yeah. We teach them about finding that fit. It's a two way process. It's both sides looking to find that team member that fits in with them, and so we do actively get students to try and establish at their current state what are their personal values? And then we do chat through how does that link them through to perhaps a business' values, its strategy, how it runs. Do you do your personal values align as far as you can tell, even before an interview stage and then an interview? I think really it's that idea of

expectations on both sides and that fit on both sides. So hopefully, a student from here would feel comfortable to go out and at least answer some preliminary questions around, "Are you aware of your responsibilities in the mass CVS? Would you be comfortable in drafting a clinical audit or taking part in one?" And I hope that most employers would feel comfortable if they were asked, "Will I be expected to write an audit it?" That's a question I feel comfortable to ask and I think most of my employers in the past have been happy to answer.

Pam Mosedale:

So apart from more simulation, which you'll be able to tell us about in the future, any other plans for the future, or what about around your research students, Marnie?

Marnie Brennan:

Yeah, look. Lots of plans as we've touched on a little bit there in terms of the stuff that Emma's developing and also that Kate's doing too. I think there's definitely more to be done with evidence-based veterinary medicine as well, and obviously, QI being a very important part of the cycle of evidence-based veterinary medicine. So maybe even linking those things a bit better in the way that happens across the course. And I suppose from a research perspective and Julie can come in here too, in terms of making what we do have more of an impact too, and making it fit for purpose for what the need is out there for the profession.

Marnie Brennan:

For example, I know we've got a PhD student, [Faye O'rucke 00:29:02], who's just done a really great project in conjunction with RCVS Knowledge, actually looking at the terminology around QI.

Marnie Brennan:

And I guess helping to set some definitions that we can use in the veterinary profession, because I guess a lot of the definitions we've had previously have been medical field based. And actually, we need our own because we are different in lots of ways to them. So I guess just trying to make the research a bit more relevant.

Marnie Brennan:

Julie, you can talk more about your work actually, perhaps.

Julie Gibson:

Yeah, absolutely. I think you've just hit the nail on the head, Marnie. It's about making that research very relevant to people in practice. And I think increasingly, we've got quite a lot of qualitative research going on, where basically translating what people are saying and helping to bridge that gap between the theory of what could and should happen, what happens on the ground, and how we can bridge that gap and for the sake of improvement. So, so I think that's a really good point that Marnie has made.

Marnie Brennan:

And also too, that we've got more students starting too. We've got a PhD student and two master students that Kate's working with moving forward. So they're both focused on QI and the curriculum, but also workplace-based studies as well.

Marnie Brennan:

So I just think that marriage between research and teaching is really important and we'll continue to push for that because it helps to inform what we do in our curriculum and helps to make it as up to date and current, and as useful really for everybody out there. That's the point. We're trying to graduate people who can hit the ground running and know exactly the landscape that they are needing to work within, so that's only fair. That's our job, whatever we need to do.

Pam Mosedale:

Amazing. I can totally understand why you won the Knowledge Champion Award. You're doing so much. When you're really at the forefront of this, you're doing so much. That's excellent. And thank you so much for talking to me about it and hopefully, might inspire some other teams to apply for Knowledge Awards in the future.

Marnie Brennan:

Hopefully it does. Hopefully. Because I'm sure there's lots of great stuff going on out there. Certainly, the other educators we speak to, there is some great stuff going on out there. So just about coming forward and doing it. Yeah.

Pam Mosedale:

That's right. So it can be educators, and it can be people in practices, anything that moves all this forward.

Pam Mosedale:

Thank you.

Marnie Brennan:

Thank you.

Kate White:

Thanks, Pam.

RCVS Knowledge:

We hope you have enjoyed this recording. Please share it with your colleagues and friends. If you would like to find out more about Quality Improvement and access our free, courses, examples, and templates, please visit our Quality Improvement pages on our website at [rcvsknowledge.org](https://rcvsknowledge.org).

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