QI Boxset: The importance of clinical audit

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RCVS Knowledge:

Welcome to the Quality Improvement Boxset by RCVS Knowledge, a series of webinars, podcasts and video interviews for practices and practitioners.

Pam Mosedale:

Hi, everyone. Today, I'm very lucky to be able to talk to Daniel Pang. Daniel is associate professor of anesthesia and analgesia at University of Calgary in Canada, and has published quite a number of papers on clinical audit. So we're very lucky to have him to talk to today. Hi, Daniel.

Daniel Pang:

Hiya, Pam. Thank you very much for inviting me to join you on this podcast.

Pam Mosedale:

No problem. It's great to have you here. Now, you've published quite a few papers, as I say, on audit. Why do you think clinical audit is important for vets?

Daniel Pang:

I think at a very basic or fundamental level, it gives us a window into what we do, or what we think we're doing, and that's the really exciting part about audit, is a lot of the time as veterinarians and as support staff, or nurses, or technicians, we have an idea in our head of what we think we're doing, and that idea can be very strong and very fixed, but until we actually make some effort to measure it and actually check, we don't really know if we're matching what we think is going on in our heads. And sometimes we're absolutely right and what we measure ties in pretty nicely, and other times we're totally off base or we're totally disconnected from what we think is going on. So I think the importance is it ties in, it gives us a way of quantifying what we think we're doing with what we should be doing and what we hope we're doing.

Pam Mosedale:

Yes. And unless we know what we're doing, how can we know what needs to improve?

Daniel Pang:

That's exactly right. I mean, until we have something that's measured in some way, it's impossible to make any kind of comparison, and without a comparison, you can't tell if you need to improve something, whether or not you've achieved any kind of improvement, and if so, to what extent you've achieved that improvement. And of course, with audit, it's always that question of if you've achieved an improvement, have you sustained it over... Because getting people to change things in the short term, whether it's days or weeks, is not that hard, but whether you can manage that and keep it going for months and longer, that's the part that takes effort, I think.

Pam Mosedale:

No, I agree totally. And I think getting the team on board with the whole concept at the start with audit is quite tricky too. Would you have any tips on how we can improve that?

Daniel Pang:

Yeah. I don't know about tips and I certainly don't see myself as an expert in this here. We've just kind of stumbled along ourselves as we've worked through this. Certainly, where I work in Canada, audit is not very well known and it's not something that many people are aware of, so in all the things that we've done, we've always gone back to basics in terms of introducing the concept to people, explaining what it is, why we're interested in doing it and really focusing on the benefits to them as a practice.

Daniel Pang:

And we've really focused on the benefits on that kind of individual practice or individual clinic or hospital level, and I think that's what audits is all about, is to be able to say, "This is what we're doing right here, so anything that we can do to understand that and improve it, we're going to see the benefits of that right away and our clients will and the animals will," and I think that's a big plus for people to say, "This isn't some research study that's five steps removed or a little bit abstract. This is something that really applies to us," and I think that's the really appealing thing about audit.

Pam Mosedale:

And I think, from my experience, that quite often, people will get a little bit confused between practice research and audit, and start doing something which is a research project, rather than concentrating on auditing what's going on in their own practice.

Daniel Pang:

Yeah, and that's something I think you have to be a little bit careful about, especially if you're making big changes into how you're managing your practice, or how you're treating patients, or how you're deciding about treatments, and that's one of the things that needs to be given some thought and right at the outset to setting things up to make sure you're not crossing that line between research and audit.

Daniel Pang:

The way I see it, in a very simple level, I guess, is that audit is basically observational. It's saying measuring or recording what we're currently doing and then instituting a change and seeing if there's an improvement or not. Whereas with research, in many cases, at least in clinical research or good clinical research, you're crossing that line as soon as you start to randomize animals to the treatment they're about to receive or randomize animals to the decision process. So as soon as you cross that line or that threshold, that's when you're crossing over into research versus audit.

Pam Mosedale:

Yeah, no, absolutely. I think that's very, very true. And I think audit is something that the whole veterinary team can get involved in, isn't it?

Daniel Pang:

Yeah, and I think that's been, certainly what we've seen, is that's been a huge plus, is soon as you explain it and explain the concept and the goals and the benefits, we find that, and I think you've said this before, Pam as well, is that nurses or technicians really jump on board and that makes a... That's a huge plus in many ways. One is from a very basic sense, they're often intimately involved in helping to collect information, so if you have your nurses or technicians involved, that makes a huge difference in terms of just collecting the information that you need and making sure that data collection goes smoothly and goes well.

Daniel Pang:

And then the second thing is that they can drive it, drive the audit process just through their interests and their motivation because, same as the rest of us, if you can collect information, that's useful to you on a day to day basis, that kind of feeds into a kind of positive feedback cycle. You collect the data, you see it, you see how it builds on itself and adds up, and that encourages you to not just keep going, but to try and improve things as well. So having nurses and techs involved is invaluable and we've certainly done that in our audits.

Daniel Pang:

It doesn't have to be limited to that either. There's absolutely no reason why it can be broader in terms of support staff or front desk staff, and that just depends on the subject of your audit. And of course, we call audit clinical audit, which is absolutely fine, but it's not limited to that and not restricted to that. It can be audit in terms of how we're serving our clients and serving our animals in the sense of appointment times, or waiting times, or how long they're on hold on the phone or lots of things like that, that are fairly easy to measure, but also massively useful in terms of getting a overall picture of the service we're providing.

Pam Mosedale:

Yeah, I agree that, no, it doesn't have to be overtly clinical, does it? So much has an impact on the care we give, basically, and therefore has an impact on outcomes as well. And I used to think that the collecting data was the really important bit, but these days, I tend to think that having those discussions about the results with the team involved who actually do it is really important. Have you found that?

Daniel Pang:

Yeah, no, I totally agree. I think that's the... And in a lot of ways, that's the really exciting thing, is you have your findings and you can sit down and talk to everyone, and it's amazing to see people who've had their beliefs challenged in terms of what you found, and having that based on pretty solid black and white data is huge as well, because then it's... And it makes it much easier to communicate within the team because it's not about he said, she said, and it's not about opinion so much. It's much more about here are the numbers for what we found, what do we think about that and what can we do about it, or what should we do about it? So it makes it a much easier discussion in some ways.

Daniel Pang:

It doesn't mean that people won't have opinions. Of course they will, but at least you're looking at it from the foundation of something a little bit more objective or tangible.

Pam Mosedale:

Yes. It takes that personal thing out of it, doesn't it? We're looking at the performance of the whole practice. We're not looking about how you would, as an individual, do something.

Daniel Pang:

Well, absolutely. I think it helps to break down hierarchies within a practice as well. And we've all been in clinical settings or clinics where there can be a very hard wall between veterinarians and technicians or nurses or other staff, and starting with information or numbers you've collected really helps to break that down. And I think it helps to, when it's done well, it really helps to bring the team together because everyone then realizes, "Well, we're all trying to achieve the same aim at the end of the day," so hopefully that's going to help to get everyone to pull in the same direction as well, and, as you say, take out some of the personal aspects from it.

Pam Mosedale:

Yes. And I think, I don't know about in Canada, but here, people are starting to talk a lot about practice culture and saying things like, "We need to change the practice culture," but to me, that's just too big. To try to change the practice culture is like a massive thing. How do you do it? But I think starting to use quality improvement tools, and starting to use audit and to measure and talk to your team is a good way in to start thinking about the practice culture.

Daniel Pang:

Yeah. I think I probably feel the same way. I struggle with very kind of broad, slightly vague concepts, like culture. Not because they don't mean anything, but it's hard to tackle something as big as that. It's hard to take a bite out of it and actually feel like you're doing the right thing. Whereas I think if you break it down into smaller pieces, you can actually address and make a difference, whether it's clinical audit or some other aspects of clinical effectiveness, I think it's an easier way to tackle things and then institute change over time or in the long term.

Daniel Pang:

And also, it makes it easier for people to view all the different components that go towards culture, because if you just say culture, it means different things to different people, and you can definitely define it, but for something as vague as that, the definition often tends to be quite wooly as well, which isn't always that helpful either. But that was a question I had for you. If I can ask you a question, because-

Pam Mosedale:

Course you can.

Daniel Pang:

... the stark contrast between certainly what I've seen in Canada and probably the US as well, our level of awareness of audits and effectiveness and all that kind of stuff is still fairly low. So I've always been

interested to see how do these things evolve over time? So how did awareness kind of growth within the RCVS to the point that you now have that excellent RCVS Knowledge website?

Pam Mosedale:

Yeah, well, I think it started, well, I know it started right back when I wrote an article quite a long time ago because I was involved with the Veterinary Hospitals Association then, and we were a little bit... People would say to us, "But all you do is look at bits of kit and the building and you don't, in any way, judge the work that's going on inside it." So therefore, it came up someone who'd looked at human healthcare, so doing human healthcare, they do clinical audit. So I think it kind of started from there, but it has been a very slow burn here.

Pam Mosedale:

But then when RCVS took over the Practice Standard Scheme, they also brought audit in there. It was there as just as a veterinary hospital level, but now it's gone into general practice level, and general practice is the middle tier of our Practice Standard System, and that's where most practices are, so I think that will help. Also, it's being taught. It's being taught to nurses in their training here, to veterinary nurses in their training. It's being taught, to some degree, to undergraduates in their veterinary training too, and I think all these things together have just contributed.

Pam Mosedale:

And then, yeah, so RCVS Knowledge, who are obviously the charity partner of RCVS, got involved in trying to draw some of these things together and provide free resources, and now I think we've got to the stage where people are starting to think about this, especially around significant events, thinking about what's happened and how to deal with them. But also thinking about audit, which I think is a little bit like preventative medicine, isn't it? Let's look at things before they go wrong.

Daniel Pang:

Yeah. And it sounds like, from what you're describing, it's kind of grown at multiple levels, and then over time, those levels have coincided, I guess, as you described. The veterinary students, nurses, the RCVS and the practice inspection side of things, and that's an interesting way to... Interesting thing to see because I think we're not... Over here, we're not quite at that stage yet, but the education part is definitely a key piece, but it has to have some degree of enforcement. It sounds like an unpleasant way to describe things, but a way to kind of hold people to do what they would like to do, what they should be doing.

Daniel Pang:

And then the last thing you mentioned about the education, I think having the educational level of both the veterinary students and the nursing students is great because then you can kind of tackle it at both ends as well. And I've certainly been in practices where nurses will drive a lot of change because they get their own CE and they speak to each other, and they hear things, and they'll ask questions, and when veterinarians are receptive to those questions, that can really be a very positive influence on a practice as well.

Daniel Pang:

In terms of the significant events or negative outcomes, as an anesthetist, we hear about a lot of those and we get a lot of those as questions from practitioners, and I think the way you described it is quite

right. We're often seeing it at one end of things, which is the end that we don't want to see. It'd be nice to catch things early on before they deteriorate or circle into a significant morbidity event or mortality event. It's interesting as it is to see how things go wrong. It'd be nice to try and offset it a little bit earlier on.

Pam Mosedale:

Yes. And talking about anesthesia, but we've had some really good case examples submitted to Knowledge from veterinary nurses around anesthetic monitoring and auditing how the monitoring sheets are filled in and these kind of things. And some of your audits have been around anesthesia, haven't they? Do you want to tell us about some of those?

Daniel Pang:

Sure. We did a couple of pretty basic ones, and the ideas are always pretty basic. Getting them to actually go forward in terms of collecting data is always much more complicated than you think, even if the idea itself is pretty simple. The very first one we did was a number of years ago, and it was actually one of our interns, Nicole Rose, who came up with the idea. She was looking for a project. We were kind of fishing around for different ideas, and she just mentioned in passing that when she was looking after our postoperative patients in the evening or overnight, she noticed that a lot of them were hyperthermic for a lot longer than she would've expected. So it was really that kind of passing comment that triggered us to look into that specifically.

Daniel Pang:

And then we found, and it was eye opening for all of us, that even though we worked pretty hard to try and manage temperature during surgery and during anesthesia, postop, we weren't really tracking animals very well at all, and we found a lot of gaps in terms of how well we were managing things. But the nice thing is, having spotted those up through the audit, we were then able to bring in some changes, some very simple changes to try and improve things, such as just making sure active warming devices were available. So again, a very simple idea, but something that was enormously helpful to us on an individual practice level.

Daniel Pang:

And then the other one more recently that ties in with exactly what you mentioned is filling in of monitoring sheets. So we looked at an equine caseload in a teaching hospital. This was in Montreal, and we just wanted to know, again, very, very simple in terms of idea concept, we just wanted to know were we actually recording whether horses were getting antibiotics or antimicrobials when they supposed to? And were we recording it accurately or not in terms of the drug that was given, the dose and the time? Because, of course, that has impact on everything else for the management of that case. And what we found is that we were all over the place.

Daniel Pang:

Again, we thought, "Well, of course we're doing that because such an easy thing. How could we possibly not be doing it?" But then as soon as we measured it, we realized we were pretty far off the mark in a significant number of cases. And again, the change we made was incredibly simple, but it was very effective. Rather than having just a blank box to fill in those lines or fill in that information and relying on everyone's memory to do that, we just added in some key information to just say name of antimicrobial dose and times. Having those visual cues of visual markers really just improved it.

Daniel Pang:

And in describing it now, it sounds deceptively simple, but again, even though it was very simple in a lot of ways, the fact that we weren't doing as anywhere near good a job as we thought we were, I think that speaks for itself.

Pam Mosedale:

Yeah. And I agree that really keeping audits simple is the key, isn't it? Keeping audits simple, doing something you can get a result fairly quickly and make a big impact. That's the thing, rather than get getting things really over complicated.

Daniel Pang:

Yeah, no, I think that's the key a lot of the time to getting it going in a clinic or in a practice, is to start with something that, on the face of it, just may seem blindingly simple, but as soon as you realize that there are almost certainly some gaps in what you think you're doing, that really helps to feed into to the idea that this is probably quite a useful thing to do. And then once you get some of those simple ones done, then you can start to build on them and perhaps make it more complicated if you want to.

Pam Mosedale:

And communication is the key to veterinary practice, isn't it? Having good communication with clients, within your team is so important. So do you think that clinical audit has made significant improvements in patient safety?

Daniel Pang:

That's a difficult question. I don't know if we know the answer to that yet, and again, I'm really speaking from the perspective of someone working in Canada. So certainly in this country, we're not at that stage yet. I'd be very comfortable saying it, it has that potential, and I don't think it's a stretch of the imagination to see how it could have that potential. I think it's a case, and again, as a researcher, I'm always a bit careful of my words when we're talking about outcomes, but I think we need to do a lot more to get concrete support for that.

Daniel Pang:

In other countries, such as the UK, I think you're in a much better position to say whether or not it's improved patient safety, and in a lot of areas, I think it probably has, just by virtue of the fact that people are far more aware of the role of audit and more and more clinics are actively doing it as well, and doing it regularly. Because it's not just about doing an audit once, kind of checking the box and being happy you've met the requirement, and then waiting until next year to it once again. It's that hard thing about doing it and then sustaining the improvements and hopefully building on the improvement. But that's probably a question I should turn around to you. How do you feel about it contributing to watch patient safety in the UK?

Pam Mosedale:

Well, anecdotally, I would hope that it has, but as you say, we need actual evidence. But I think some of the benchmarking things that are coming in may give us some evidence, certainly around surgical outcomes. We've got some benchmarking around, we've got a national small animal neutering audit, which is a benchmarking exercise, and we're also going to be launching quite soon from RCVS

Knowledge, a national postoperative outcomes audit, which will start to include other procedures, not just elective neutering procedures, and start to include other species.

Pam Mosedale:

So I hope... I mean, the problem with these is getting people to submit their data because it's only as good as the data that's submitted, but at least if we see that... So far, we haven't seen the benchmarks changing a lot, but hopefully, because a lot of people will not submit their data. They'll just look at the benchmark and then maybe do their own audit and compare. But if they submit the data, hopefully we should see, as time goes on, that the benchmark should improve. That should give us that evidence. And I think there's an audit at Liverpool University around colic surgery in horses as well. And we've got quite a lot of auditing around use of antimicrobials, which I think's also really, really interesting.

Pam Mosedale:

So yeah, I think it all adds together and I hope it improves patient safety. And I certainly don't think there's any evidence that it makes anything worse.

Daniel Pang:

No, and I think that's an important point is the chances of audit causing a problem or leading to a negative outcome are pretty minimal, especially when we're looking at very simple things in terms of observational studies and just collecting that basic data. The benchmarking stuff is fascinating, and I think it's really worth emphasizing for a couple of points. One is that a lot of the CU we get and a lot of the stuff we rely on, which is basically papers and publications, historically and still today they're conducted in university settings or academic hospitals, and it's very hard, if not a possible to know how closely that information ties in with general practice because in university hospital, the setup is totally different.

Daniel Pang:

You have so many more layers of numbers, people that are involved with every single case. You have different things that are controlled to different degrees. The people performing the surgeries, at one end of the spectrum, they may be specialists, at the other end of the spectrum, they may be veterinary students, so how that information compares to general practice, I think is very, very hard to get a handle on. So I think benchmarking from practitioners is massively useful for that because it allows practitioners to compare what they see and do in their own practice to other people in general practice, and that's something we've just not had access to ever before.

Daniel Pang:

And then the other big thing is, as you know, our memories are fallible, so we always tend to remember the last worst case we had. It's very, very hard for us to get a good sense of what is average for us in our own practice. And again, that's where benchmarking comes in because it'll allows us to quantify that average and compare it across different practices. So rather than focusing on your last terrible surgical outcome or your last terrible anesthetic outcome, which is what commonly happens, you can instead think, "Well, what about the other 99%? Were we at a similar standard to other practices in that 99% that reflects most of what we do, rather than that very small number where things went wrong?"

Pam Mosedale:

Yes. And I think clients like value transparency too. And I think this is quite important when it comes to informed consent. Clients will ask in... I mean, I've been in first opinion practice all my career, and clients will ask, "What is the risk of my being bitch being spayed or my cat having an anesthetic?" But if you've actually got figures you can share from them, you demonstrate that in your own practice, you do measure it. And if you can also demonstrate how your figures compare with other people's benchmark figures, that can be powerful, I think.

Daniel Pang:

Yeah. And I think that's probably something that might become more and more important in the future as well because it's so much of what we do is driven by the public, and driven by what they want, and driven by how aware they are certain issues. And we've seen that over the years when it comes to breed specific problems as well. But exactly the same thought process can be applied to transparency and audit itself. As pet owners become more aware of things and become better educated about veterinary medicine, they're going to ask some of those questions, and whether we like it or not, probably in a good way, they're going to force us to become more transparent and ask us to put numbers to things, rather than having kind of vague, slightly hand waving discussions about what we think is going on.

Pam Mosedale:

So just to draw it a close, I think, and to me, another benefit the morale of the team when audit's been done and they've discussed how, hopefully, well they're performing or see that they weren't performing well and then start to improve.

Daniel Pang:

I think that's a huge plus with audit compared to traditional research is you're doing something that is completely relevant to your day to day practice, and not only is it relevant to do your day to day practice, you have the chance to achieve an improvement in your day to day practice, and I think that's hugely fulfilling for people. You're touching something that affects you daily. For us, that's something that's a little bit abstract in terms of let's just do a better job with our surgical outcomes, because so and so published a paper to say, "This is what we should be shooting for," bring it much closer to home. I think it's a huge plus. And as you said, I think having that team involvement is a big boost as well because it really draws everyone together and opens up communication and all that kind of stuff.

Pam Mosedale:

Thank you. No, this has been really fascinating. It's been great talking to you, Daniel. Thank you very much for giving us your time today. And I wish you well with promoting clinical audit in Canada. And we have resources on our website that anyone can have a look at. So anyone have a look at our quality improvement resources, including the clinical audit resources, and read Daniel's wonderful papers on clinical audit. So thanks again, Daniel.

Daniel Pang:

Thank you very much. It's been a pleasure.

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