# Adapt, Improve, Achieve: RCVS Knowledge quality improvement stream at SPVS VMG Congress 2020

**Podcast transcript: Dan Tipney chairs the panel, featuring Louise Northway, Alison Thomas, Pam Mosedale and Richard Byrne, as they discuss quality improvement in practice.**

## Introduction

Welcome to an 'Adapt Improve Achieve' session by RCVS Knowledge, which was recorded at SPVS VMG Congress on the 25th January 2020 at Celtic Manor resort in Newport, as part of the quality improvement stream. In this session, we will hear from a panel of vets and nurses: Louise Northway of Wendover Heights Veterinary Centre; Alison Thomas from Blue Cross; Richard Byrne of West Bar Hospital; and Pam Mosedale, RCVS Knowledge Quality Improvement Advisory Board; led by Dan Tipney of VetLed. The panel discuss their experience of quality improvement in practice, from hand hygiene to temperature management, and introducing guidelines. In this session they discuss ideas on: topics to start with, how to record, tips to engage your team, as well as the benefits and barriers they have experienced.

Dan Tipney (DT): Welcome to our final part of the stream today. This session is really all about - we've got a fabulous panel here - some great insights and experience around quality improvement that we've been talking about so far. So I'll introduce them in a second. And it's all about 'the how'. We've heard a lot about the background around, what is QI, why is it important? We've had some examples of what people have done. But this is really an opportunity to hear from people who have really got in there, and either done it themselves, or experienced first-hand what people are doing in practice. And hearing how they've done it, and what impact it had. So, just a little bit about RCVS Knowledge, and this stream here. They're a fantastic organisation, although despite the name, are a totally separate organisation to RCVS itself. They're working to advance the quality of veterinary care, by providing support to veterinary teams, for evidence-based veterinary medicine as well as quality improvement tools, which is what this is about here.

One of the things I think is really relevant to what we're talking about now, are some of the resources available on the RCVS Knowledge websites. A lot of the stuff we're talking about, around things like audits, guidelines, checklists. So there's some fantastic resources. And something that did come out today as well - which some of you have probably seen - some of the information from a massive project. A big research project, which was as I said, just released technically yesterday, but I think this is the first time anyone would have seen all this. So they're available all on the different- no. There's just that one over there. If you'd like to collect some information on that, and also some resources on surgical safety checklist manuals. So some great resources there. So I'll proceed onto talking about the panel we've got.

We've got Lou Northway from Wendover Heights and we've got Richard Byrne from West Bar, Alison from Blue Cross and Pam Mosedale who's sort of representing RCVS Knowledge, I suppose, in this capacity. So I'll let them introduce themselves in a bit more detail now. So what we'd like to just hear, I suppose, in this initial introduction would be a bit more information about your role within your organisation, any of the quality improvement projects that you've been involved in yourselves. And why you think QI is so important. And it would just be really interesting to hear that as a starting point really, just in the order that you're sitting.

Louise Northway (LN): Okay. So good afternoon everyone. And as Dan just introduced me, my name's Lou Northway. I'm a Registered Veterinary Nurse and I'm based at a big first opinion practice in Buckinghamshire. We deal with small animals, exotics, lots of those, and equine as well, although I'm not involved in equine. I have worked at Wendover for 10 years, I've been in practice for 15 years and I've been qualified for 11 years, so I've been a vet nurse pretty much my whole life. I was appointed as clinical nurse lead about four years ago now. So that involves being basically the one that looks at what we're doing, how we're doing, and why we're doing it. I started doing clinical audits back in 2017, and to start with I was using the RCVS vetAUDIT spreadsheet. And that basically involves me looking at post-op complications in our dogs and cats.

So that was like the starting blocks for me. And at first when I started doing that, I didn't think I was going to learn that much, I thought we were doing great. But actually it became very apparent, very early on that we weren't doing as well as what I had anticipated. So anyway, lots of positive things have come from that. Later I did an anaesthesia certificate; that's one of my other loves in life. And when I was on the course, there were lots of things that I was thinking about when I was there. How are we doing? Are we doing a good job? Could we do be doing things better? But I didn't really have any evidence or ways of knowing that, because it was at this point just opinion. So back in 2018 I undertook a big anaesthesia audit at my practice, which involved looking at intraoperative and postoperative complications, drugs we were using, monitoring equipment we were using, were we even using monitoring equipment and things like that. And the results that came out were really surprising. And I thought we were doing great, we were only doing good. We had a lot of training after that to sort of change the way we were doing things, but there were a lot of really positive learning outcomes as a result. So, I think that's all I'm going to say for this bit. But, yeah, I've learnt a lot.

DT: Perfect. No, thank you very much for that intro. We'll get a chance to go into, to ask you some more specific questions as it goes on. But thanks for that intro.

Richard Byrne (RB): Hi there. And thanks for coming, after lunch. I'm Richard Byrne, West Bar Vets in Banbury. We're an independent practice; I'm still in my first job after 32 years. I'm still doing a one-in-four rota, not really sure why. I gave up cow caesars last year for someone else. So no more 2 am calls for me. But the thing I've always done, I've always enjoyed practice, but always wondered why do we do what we do and is there an evidence base for it. And in about 2010 I think, probably to coincide with a PSS assessment, we decided that we ought to try and just monitor what we're doing in terms of - particularly postoperative monitoring - to see what is actually happening. How are our patients doing, how good are we performing? And we started that audit then. I have certain skills in technology, so we were actually able to essentially computerise that process so that all our audits feeds in. It gives us a live feed of what's actually happening within the practice using our practice management system. And that's given us some really, really interesting changes that we've actually seen on the audit.

And then we asked the questions "Why?" And we actually are providing evidence, and it's actually changing some of the behaviours that we're doing because of the evidence that's coming back from the audit. [to Dan] Do you want us to go through it or are you gonna come back?

DT: We can ask some more specific questions. We've got plenty of time.

RB: I also, for my sins, am a Practice Standards Assessor, two days a month or so. So I confess that as well. But the great thing about that is that you go around and you can see some really good stuff happening in practices. But you also see practices struggling with the whole concept of "What is quality improvement, what is clinical governance?" And it'd be really good to be able to sort of spread the message a bit more, and try and demonstrate some simple things that people can do. Maybe we'll go over those a little bit later.

DT: Absolutely. We've got lots of time to really dig into that and hear from what you've been up to. That'd be great. Thank you very much.

Alison Thomas (AT): Hello, I'm Alison Thomas. I work for Blue Cross, which is a charity, quite a small charity. We have a number of hospitals offering treatments, which is essentially free to people who are on qualifying benefits. We also do rehoming education, and have an external affairs department as well. My role is as Head of Veterinary Services, but I share this role with a colleague, and that enables us both to do some clinical work as well as all the sort of overseeing and organising that we do. And that's, I think, a real advantage in our position in that we're much more aware of what's going on on the shop floor. And also I think we're better respected in our other role because we're seen dealing with all the real problems.

Before working for Blue Cross, I had a number of different jobs working in both charity and private practice, in the UK and also overseas in Asia. But Blue Cross was the first place I'd worked where I didn't have to charge anything for owned pets. And when I first started I thought, this is absolutely brilliant. I don't have to turn anybody away, or even worse, put an animal to sleep, because the owner can't afford the treatment that's needed. And I don't have to have that conversation of how much can they afford, and what are we going to do. But over the years, and particularly as more treatments and investigations became available within veterinary medicine, I became more and more uncomfortable about it. It was worrying me that we didn't know where to stop. And if we made an offer of something to a client, they would very often accept.

And this was all at our expense. And I also became a little bit worried that we were extending life without necessarily improving quality of life, or even worse in the face of decreasing quality of life. So we needed some sort of a structure to work within. Obviously we were paying for the treatment, so cost was going to be a primary driver. But we didn't want to just work within a cost threshold, because if you make a rigid cost threshold, you might miss some cases that with a little bit more effort, a little bit more input, can have a great quality of life and are satisfying for a vet's team to manage. And also great for the owner as well. So we wanted to look at it in more of a cost limited, evidence-based, welfare-driven sense. And so we decided that we were going to develop a library of clinical guidelines. And in developing these guidelines we were looking primarily at evidence and we were involving the whole team in their development.

What we've ended up with is about 55 guidelines on a whole variety of topics. What that has done for us is - it's reduced our costs. We measure cost to the organization per animal helped over the course of a year. That's come down by 15%. Other things are a reduction in the percentage of consultations that result in an antibiotic prescription. It has made a real difference and it's been absolutely fantastic CPD and a team building activity as well. In acknowledging the benefits it's had for us, we're keen to try and help people across the country, who aren't in reach of charity services, by developing some sort of peer-reviewed clinical guideline library for pragmatic cost-limited care. I think there's an awful lot of people who are poor, low-income families, who perhaps are not daring to cross the threshold of a practice. And if there was some sort of cost-limited service they could subscribe to, it might increase footfall through practices, could increase job satisfaction for veterinary teams, and improve animal welfare. So that's where we're at.

DT: Fantastic. Thank you very much. Again, we'll get a chance to explore some of those in more detail in a bit. Thank you Alison.

Pam Mosedale (PM): Hi, I'm Pam Mosedale, I'm a vet. I've been qualified for 40 years. Scary! [laughs] I've been in general practice all that time. First opinion practice. I started in mixed practice, did farm work for quite a long time and then went to small animal practice; I was a partner in a veterinary hospital. When I was a partner in a veterinary hospital, I got involved with BVHA and via BVHA, I had just joined BVHA Council, and some bright spark had happened to notice that in the medical profession they were starting to do this thing called clinical audit. So they said, "Oh, we need to explore that. Pam, you're the new person. You've got this." So I had this baby given to me, of clinical audit, to look after. So I did some clinical audits in my practice, and I wrote the first article on clinical audit. Back in 1998, I realised this morning when somebody put the slide up.

My practice really enjoyed it; they all felt really motivated by it. In fact, it wasn't just the clinical team; the reception team wanted to be involved and we did client waiting time audits. Which the vets got very competitive about.

[Audience laughter]

So that was my first experience. And then I was a Practice Standards Inspector. Well, I was a BSAVA Practice Standards Inspector and then went to Royal College. And obviously it's in the code, it's in the code. Clinical governance is a Code of Practice core requirement. We all should be practicing equivalent to core standards, even if you're not in practice standards. But lots of practices didn't really know - lots of vets didn't really know - what clinical governance means. So my kind of mission, while I've been a Practice Standards Assessor, has been to try and explain the simple things people can do.

Cause I entirely think it's what we've all always done. I don't think it's something new and different. We've always done it, we might've done it informally over coffee, tea break. But what we have to do now, is do it in a more formalized way and record it and make sure we actually learn from it and make the changes. That's the difference from the slightly informal way we did it in the past. So I'm now lead assessor of Practice Standards Scheme. I'm involved in training the other assessors, including Richard,

and we've very much emphasised in that, for the assessors, when they go out into practices, to come up with practical ideas to help practices comply with the requirements for clinical governance. I wish we could call it quality improvement. We have to still call it clinical governance in PSS because that's what it says in the Code.

But to me quality improvement is such a better word. It's a real 'Ronseal-does-what-it-says-on-the-tin' word isn't it? Rather than clinical governance, which sounds a little bit scary and so on. The other thing is when RCVS Knowledge got involved in quality improvement, they asked me if I'd join their Quality Improvement Board, which I was very happy to do if we're going to come up with something practical. And I'm glad to say we have come up, I think and hope, with some very, very practical resources.

[Addressing audience] And have all of you seen them? Yeah. Is there anybody who hasn't seen the Knowledge resources yet? Please, anybody who hasn't, please go on and have a look. They're free, completely free, they're really practical, they give you a template of how to start using checklists, using guidelines, doing clinical audit, and another of my passions, significant event audit. Cause I think it's so important that when things go wrong, that we look at them in a constructive way. To look at the systems of work, looking at systems and improving systems, not about blaming people. And then last year I was very honoured to be asked to be chair of the RCVS Knowledge Quality Improvement Board. That's me. Thank you.

DT: Thanks Pam. And I think it's great that we've got such a range. You know, we've got Richard from a sort of management perspective, we've got a sort of nursing perspective, veterinary perspective and also Pam more sort of externally who gets to see what lots of different practices are up to in that role as an assessor. So I think it'd be really interesting to have all these different insights. Very briefly, my background in terms of chairing this. We've got a great team coming from a sort of clinical or in practice roles. And for those of you that don't know my role at VetLed, I don't come from a clinical background at all. So I'm coming from the world of aviation and sports.

And particularly looking at the aviation side of things and the human factors training that I got involved in, in my training roles in different airlines and the training that I've delivered to healthcare teams and veterinary teams since then. I'm very much interested in how we explore the gap that exists between possessing clinical skills and knowledge and actually delivering outcomes that we want to achieve. And for me, that's the gap that I'm really interested in. And all the things around quality improvement gives us the chance to do that and more. It gives us the chance to explore what that gap is. It might be a gap around something non-clinical, around the impact on wellbeing and the people themselves, but it might be around something clinical itself.

So I guess I'm looking at it through the lens of patient safety and human factors. But we've got the opportunity to explore the clinical aspects as well. Some of the very specific things that are coming up here, certainly from my perspective from flying, checklists and safety reporting systems, have been absolutely integral to flight safety making the changes that it's made over the last few decades, and aviation being as safe as it is. So there's lots of things that I'm very, very interested in, and lots of things that are very relevant to quality improvement from my perspective. So I will do what I can to make those links, from my lens, through that sort of human factors and patient safety eyes. So I suppose onto

defining what we mean, having heard those different introductions and why quality improvement is important from our panel's perspectives.

And I think just to summarize what we've heard already from the different talks - those of you that have seen the talks we've had in this stream today already - there's been some great examples of how different people have defined it. But essentially it's come down to looking at what we already do and making it better. And it really is a bit of a Ronseal thing, what was just mentioned now, that quality improvement is exactly what it says it is. It's stuff that a lot of people have been doing for a long time, but it's a way of formalising it and doing it in a way that can provide a structure for other people to follow. And that's what we're going to talk about now. How can we actually have a structure around things such as audits, producing guidelines, implementing checklists, and all the other sort of things.

And I think that's very much how we will define it. Cause it can sometimes be surprisingly hard to do, even though it is literally what it says it is. So onto the specific questions. I'll go through in order and I think the natural place to start with is the audit itself, because that is the way in which we can discover what is really going on. Those of you that heard Suzette Woodward talking earlier, she talks a lot about knowing 'work as done'. We have this idea, particularly those of you in leadership management roles, of 'work as imagined'. You imagine what work might be like for people. But we only actually know what happens by finding out what happens.

And one of the ways we can do that is actually by performing audits. And so on the topic of audits - and Lou's done some great work in this area - I'm interested as a starting point to understand how do you actually decide what. Cause there's so many different things you can explore. So many areas of patient care, patient safety, so many things that we could improve. So how do you actually go about choosing a topic to perform an audit on in the first place?

LN: As I mentioned, initially my first ever audit was on neutering. So that's routine everyday neutering. But rather than at first me focusing on an area where I know we were doing - well, not that I was aware we were doing poorly - but thinking, "Oh gosh, yeah we need to work on that." For me, actually it was an interest, so I wanted to look more into an area I had a focus on, that I felt enthused about to see if we can make it even better. So that was really my driving force. So along the way of the course I did, I thought, "Hmmm, we could probably update that." I'd come back into practice, I would say to my vets, "Oh perhaps we could change this." And sometimes, as I say, people are very resistant to change, if there's no evidence for the need for change.

So I thought, right, well let's do an audit. We'll see how we're actually doing. And the audit itself was nothing fancy. I got three bits of A4 paper, stuck them together, put it on the wall in Prep. It was pretty much from how tall I am right down to the floor. And after the nurses had put the patient back to bed, they'd come and fill it out for me. So that's how I collected my data. So it really wasn't particularly fancy, but that's the way I did it. And then I collated it, put it onto the computer, analysed it and looked at it. I've actually gone off the question here, haven't I? What was the question? Sorry. [laughs]

DT: It's around actually how you select what topic. How do you decide, of all the different things you could audit? How do you choose one that you think is going to have a big impact?

LN: So it was a passion for me. That was it really, it was a passion and I wanted to do things better. I thought we could do things better. And with the audit there were things we didn't need to change that we were doing just fine. But there was a lot that we did improve and it has made a big positive difference. Cause I think when we come to do audits, you may be thinking of just the things that, you know perhaps your team doesn't do well. But actually you can audit an area you do do well as well, because then you're aiming for 'great'. Cause that's how I think of things. I'd love to think that we're doing 'good', but I want us to do 'awesome'. So that was my driver for the anaethesia audit.

DT: I think that links very much to what was discussed in one of the last talks from Suzette Woodward around safety II. Something doesn't have to be broken to try and fix it. We can explore what's going well, and understand why it's going well, and I think that mindset that that can give us just as much value, is actually understanding something that's not going so well. It's really, really important. And also the idea that choosing something very specific, and sometimes if it's just because you're really interested in it, it's a good enough reason. Because if we try and do too much at once, then we compromise the ability to maybe do anything. So being really specific, choosing one thing, doing it really well, and if it's because you just are passionate about it, then that makes sense. So you've chosen a topic, so in terms of when you measure, I guess you have to define some sort of criteria around how are you going to measure it? So how'd you go about - how have you gone about doing that within your audit?

LN: Yeah, so I looked at key things. So I sat down and I wrote up a list of questions before I made my - designed my audit sheet. What did I specifically want to look at? So there were patient safety factors I considered. For example, something as simple as placing an IV catheter. So how many patients were actually having an IV catheter placed? And is that one on there? [looks at slide] Yes. So in our dogs, the majority of dogs, were having an IV catheter placed. They were having intravenous propofol for induction, so they'd need to have an IV catheter, or preferably an IV catheter there. But for our cats, at the time, we were using injectable general anaesthesia. So there was no perceived need for an IV catheter, but actually from a patient safety perspective, they should have an IV catheter as well.

So that was a discussion point, which came back in with evidence. So I went and looked for some papers. The Brodbelt study is a really good one to look at, if you want to look at influencing factors into patient mortality rates. And that was a protocol change that came from the audit. And this isn't because we were having problems and we were having patient deaths, it was just from a safety perspective. Well, why aren't we? If we have a complication, we can't address it if there's not an IV catheter in - or we can't effectively and efficiently. What else did I look at? Blood pressure measurements. So that was a really interesting one. We were looking at how many of our patients under anaesthesia had normal blood pressure, high blood pressure, or low blood pressure. In the pool of patients we did, only, I think it was a third of patients had their blood pressure monitored.

And the reason for that was, lack of resources. So lack of equipment. Sometimes we can have multiple vets operating at the same time. So we'd have to share machines, prioritise machines, and is that okay? And then moving on from that - of the patients that did have their blood pressure monitored, in our feline patients, quite a lot were hypotensive at some point. So then I thought, well, how about all of the ones that were not having their blood pressure monitored? It makes you start thinking about all of these different factors. So it was more - I had questions in my head in regards to, are there any factors, what are we doing that can increase risk? And then going back to blood pressure monitoring as well, we had a

lack of equipment, so that gave me quite strong evidence to go to my practice manager - who is sat just there - to say, "I need four more machines, please". [laughter] Yeah. But, you know, it wasn't, it's not what I want, it's what we need. We need to do our jobs really well. And know that all our patients have nice blood pressure, or be aware that they have low blood pressure and then act appropriately.

DT: Very interesting. Thank you very much. So, Richard moving onto you, you mentioned some areas around using the management systems, computer information technology and anything sort of related to how you're collecting data. How you're analysing data against these targets, these criteria, that you might - it's all very well choosing a topic, choosing your criteria. How do you go about collecting and analyzing that data?

RB: That's one of the really big problems - how do you get that data? And how do you get it in a sensible way? What I've done on this slide is sort of briefly gone through my thought processes about how you do it. Now, our PMS system, as some of you might see in a couple of moments, is extremely old. It's the oldest, it's legacy, it's dead, but it runs really, really well.

And if you're trying to capture data, and capture it as efficiently as possible, then your PMS system must have some way of being able to do that. What we call a customised protocol. So ours has a customised protocol that is actually linked, for example, to the post-op checkup. A sale item. And what our protocol does, is it asks some really, really simple questions of the user, which they have very little option, but to answer. They can't escape from the protocol, they have to answer it, it's forced. They can't press 'X' because it's not a Windows machine. And the data is captured. In our case, it's captured straight into a database. But it can, in your system, if you can't manage your database, it can be connected into a spreadsheet or a CSV file, which you can then later do the analysis on there.

If you introduce a computerised protocol, a couple of things to really bear in mind, is that you're relying on the goodwill of your staff in a busy console to fill it up. And the most important thing is, there mustn't be any more than three clicks of a mouse or three additional key characters to be entered in order to capture that data. Ideally you want to do it in two, but if you cannot do it in two, then do it in three. If you start and have a great big long protocol - as I discovered because my staff came back to me and said, "We want an escape button please" - don't put it in with any more than three. And if you go to the next slide for us, okay. [Indicates slide] This is PremVet. Some of you may recognise, and yes it still runs, and what we've actually done is - the two questions we've asked is - we've asked them first of all in the postoperative check-up to categorise, broadly speaking, the type of procedure that they're auditing. Because it's really hard in a practice management system to link what was done in the operation, and then what they're actually doing postoperatively.

So we put them into broad categories like keyhole surgery or medical treatment or x-rays and diagnostics. And then they have an option at the next stage: there's no problems with it, or if there is a problem. If there's no problem, it automatically just carries on and logs that as a preform text. And if you go to the next page [indicates slide] and if there is a problem, then we have five levels of interference: only advice or reassurance is needed; that it's something we expect from this procedure; that we've got to do some medical treatment in order to fix it; that we've got to do some surgical treatment in order to fix it; or that the thing's dead. Okay. And those are our five different parameters. And at the bottom of

this - I just pulled these results off our system last night - you can see that over the, crumbs, nearly 10 years we've audited close to 10,000 procedures on that. And we're consistently finding that about 92, 93% of all anaesthetics we perform don't have a significant problem that the owner reports to us.

Now that figure is quite high. But what's quite interesting is that some of these where it's got medical treatment and surgical treatment go up and down, and they vary. And if we just go onto the last slide, I'll show you some of the things that we've found. And one of the things that we have, is we have the confidence to tell our clients that most of the cases that we admit will not have any significant problem. And we can do that on the basis of having 10,000 data points. But we've also spotted problems with medication. How many of you here have seen lot of buprenorphine dysphoria? Have people seen it, yeah? Well this is something that we spotted in a number of our patients.

The dog would go home and we'd say to the owner at the post-op check-up, "How's the dog doing?" "Oh, absolutely terrible. He was in so much pain. He was crying all night. Whinging all night. Really, really unhappy." And what was happening is, they were contacting our duty vets and the duty vets say, "Bring him in!" So they brought them in. "I better give you some more pain relief." So they gave us some more buprenorphine and what happened? The next day, the poor thing is still in discomfort. But we spotted this because we found that we were auditing x-ray anaesthesias, where all that happened is the animal came in, anaesthetised, simple x-ray, woken up, went home. The owner said, "Crying in pain all night." We thought, that's odd what's happening? So of course we then find that they got this buprenorphine dysphoria. What we then discovered is, we spoke to the company, they said, "No, it doesn't happen at all."

But I can tell you from the evidence base that the older the dog gets, the longer that goes on for and it can happen for up to 48 hours. So now we tell our clients, if you've got an old dog, he's going to be on a trip. Just live with it. Okay. The other thing that recently happened - I'm old fashioned, so I like to give peri-operative antibiotics for absolutely everything. My colleagues who know clinical stuff say I shouldn't. So they unbeknown to me, stopped all antibiotics in cases that were ASA 2 or below. And surprisingly, I saw no change in the performance of our post-operative complication rate. We've also seen changes - literally overnight, we saw a change where the guys were doing some stitches, they changed overnight to intradermals and it halved our medical intervention rate. It was small to start, but it halved literally overnight. And when I said to them, "What have you guys done?" They said, "Oh, we decided, we had a meeting and we decided we were going to do everything with intradermal sutures."

So intradermal sutures cut it down. Fairly recently that level's gone up, because they've got so much more cocky with intradermal sutures that they now suture everything intradermally and a few of them tend to break down because the wounds probably oughtn't to be sutured intradermally. So these sorts of changes, but because the system is live, we can actually see what happens. And anything that reports over a grade three or above in the complication rate is immediately alerted to me on the system. So I can actually look down through it and see consistent changes. So that's one of the systems we use. I've got loads of others, but that's me.

DT: It's really interesting and I think it's almost a slightly different style of auditing, because you're collecting all the data, almost all the data all the time. So if you want to then retrospectively identify

trends in relation to changes that have been made, you're able to do that all the time, just because of the sheer amount of data that you're collecting. Which I guess is a slightly different approach to saying, I want to audit this for this set period of time. A little bit like what Lou describes. It's interesting seeing the ability you've got from the amount of data that you're collecting.

RB: Yep. It gives you a lot of power.

DT: There may be some people thinking - it may be hard to know where to start with some of those things from the technology perspective. But I guess if we've got time to give some guidance on that later, maybe we can come to that. But that may be one of the questions that comes up. So we'll see. So we'll move on, I guess naturally from having chosen topics and thought about criteria and thought about data analysis, and how that might look. We then move on, to the sort of outcomes, interventions or changes that might occur because of findings from these kinds of audits. And that kind of leads us nicely onto the work that Alison's done. So I'm interested to know what's the indication that guidelines are likely to be a good solution? Because I suppose they're not always necessarily the solution to all problems, so what might give you the indication that creating a guideline would be a good solution to a finding from an audit?

AT: So, we looked for the type of cases where there was a big welfare impact. So osteoarthritis - we wanted to have a more consistent way of managing that and evaluating pain management. Anything that was expensive. So we were spending a lot of money on heart drugs, so we wanted to look at that and see if there was the evidence to support their use, if we were spending the charity's money wisely on these cases. And I guess any sort of condition that always seems to provoke a lot of discussion and a lot of anxiety. And those conditions where we seem to have very inconsistent ways of managing - sort of scattergun approach to managing them. Because we don't have very good continuity in our hospitals. It could be very confusing for vets, and also for clients, if approaches were varying a lot and different from one visit to another. So those are the sort of cases that we looked for in designing clinical guidelines.

DT: Yeah. Makes sense. And then in terms of - I mean you've mentioned a little bit about it, how you involve people with a particular interest to help with design of the guidelines - but is there any other information, other guidance you can give around how you actually go about it? There is more information on the RCVS Knowledge resources, on the website. I guess if there's anything that stands out for you in terms of how you go about doing it, and creating them effectively, because it's one thing to create them and it's another thing to have ones that really help.

AT: Yeah. So my first attempt to create clinical guidelines was to ask to be off clinical rotas for two weeks and sit in my own space and try and sort of hammer out some of the guidelines. But then I realised that it was going to be difficult to get people to accept them, that I didn't always trust my judgment. You know, what I felt was a good use of Blue Cross money, perhaps other people would have different views. So I realised that wasn't going to be a way to successfully meet the need of guidelines. And the next strategy was to involve as many people as I could in them. So initially I picked, say I was doing guideline on heart disease in dogs. I picked somebody who had a cardiology certificate and I said, I'm giving you a day off-rota to go and research all the latest papers on this, pull in your own experience, CPD that you've attended, talk to anybody that you know, specialists that you have in your contacts. And I did that for a number of different topics and then I assembled all those people in the room together, which was a huge challenge because it meant there were a lot of vets coming off clinical duties, and we had to employ locum cover and be creative with the rotas and the clinics that we were offering. But it was

100% worthwhile. And we sat in a room all day discussing, working our way through each of these subjects. So we all in the room got the benefit of the research that the primary person had done.

And at the end of it, I had a whole lot of information and collective views on what we as an organisation should be doing in a particular clinical area. And then the slow bit was me actually writing that up into a guideline and also an owner information sheet, giving them the understanding of the condition and our approach to it, and what else was available, you know, we don't offer everything. We shouldn't offer everything. And how they could access further treatments if they wanted to. But also because all this research had been so fantastic and such great CPD, we decided that we really had to preserve that, so we created supporting notes. So if somebody went, well, why are we doing this? They could go to the supporting notes and there would be the explanation and the references there.

DT: That's amazing. It's a huge amount of information for 16 conditions, to do all this work. It's really, really incredible. And I'm just interested in the layout because they're both, even the sort of expanded version and the more sort of illustrated version, they're both laid out very specifically that they're very easy to read and they stand out as, they're obviously all designed the same way. And is that something you spent quite a lot of time and consideration over? Did you get feedback from people around how easy they were to read and that sort of thing?

AT: Yeah, so initially we didn't use quite so many of these flowcharts, but flowcharts are definitely what people prefer in a clinic setting. And they have been incredibly useful in the clinic where you've got 10, 15 minutes to deal with a case, and we've got them set up as a link on all our desktops so you can just flick into them, scan through and know exactly how you're going to treat the animal. But they are guidelines, they're not protocols. They are laying out how Blue Cross would choose to treat an individual case, there will be specifics in there of things that we absolutely don't do. So you know, this is something we don't do, but there is still clinical freedom within that. We acknowledge that every case is different. There may be owner factors that you need to take into account. So there's still a lot of flexibility in them.

DT: I think that's, it may or may not be something we get time to discuss in more detailed, the difference between guidelines, protocols and standard operating procedures and maybe where the overlaps are. And again, that may come up as a question later anyway, so, and that may in fact be something, that Pam wants to discuss now because what I think would be interesting to talk about is, we've talked about the specifics of the audit itself and again, the topics, the criteria, measuring and analyzing and one of the outcomes from that process might be creating guidelines. But I suppose that's just one of many. And so we'd be interested in your perspective of having seen lots of different practices go and implement lots of different changes. What have you found to be effective as sort of sustainable improvements in practice?

PM: I think the most important thing with any audit, is that some change comes as a result of it. It is completely pointless to do it if you're not going to change anything. And in order to change anything you need to talk to the team. You need to consult the team and find out what the barriers are to whatever's happening, to why somebody isn't following a guideline or why you're not getting the outcomes you wish. And I think we've talked nearly all about outcome audits up to now and I really think that for veterinary practices, especially starting off in audit, process audits can be a really good place to start. So this is just seeing whether you're actually following a guideline or a protocol. And obviously a protocol is

something from which you should not deviate and a guideline is there just to help you to follow it. But, process audits, there's so many simple process audits that veterinary practices can do very, very quickly.

Generally I've found that nursing teams are very keen on process audits too. So you can look at anaesthetic monitoring sheets, you can look at anaesthetic consent forms — have they been signed, have they got the name of the procedure, have they got an estimate? And you might quickly get a result that yes, they've all been signed, hopefully, they've got the name of the procedure, but only 50% have got an estimate or whatever. And then you've got some evidence to take back to your meeting where you have the talk about why haven't they got an estimate? Well, it's because nobody knows how to use the estimating feature on this new PMS system we've just been given and we don't know how to use it properly. It says it's not clear, so you might set up bundles on there to make it easier or whatever. So the important thing I think is acting on it. And so we do go sometimes, practices — I'm sure Richard you'd agree — who've done audits but haven't really followed them up. And then the team gets a bit disillusioned. They're like, Oh yeah, I know, we did that, mmm yeah. Whereas the ones where they have followed them up, they can tell you how it changed things. And that's the powerful bit of it, is the change rather than actually... doing the audit's great but the change that comes from it is the really important bit.

And then the other things that we see in practice are practices having really good clinical discussion meetings, practices setting up journal clubs, having somebody enthusiastic in the practice who wants to run journal clubs, checklists, using checklists, using surgical safety checklists or using case handover checklists, things to help. None of us have perfect memories. Things to help us with the little steps, and also systems of work actually, as I said for the significant event audit, it's not blaming people but looking at systems of work. And we have some really good talks this morning about systems of work and changing things. And I had one practice tell me that they had endless protocols about closing doors, because they had two doors from the kennels area and it was those protocols which they'd gone through with the teams millions of times about closing. You mustn't have both doors open at the same time. But still, both doors were open at the same time and they were really worried an animal was going to escape. So in the end, the system was to put a klaxon in which was connected to the door. So if both doors were open at the same time, this extremely loud noise went off. And that solved the problem. So there can be physical things that can solve problems as well. And I think that's all that is all part of quality improvement, putting those things in place.

And the last thing I'd just like to say would be that I think practice managers sometimes get a bit scared of it because they think it's clinical, clinical audit. It doesn't, it's management. It's really as management. There's so many things where practice managers can be involved in clinical audit. As I say, auditing, if they're giving estimates about consent forms and monitoring sheets and auditing guidelines, and like you say, maybe with auditing your guidelines, you might have guidelines for cats with renal failure to involve some having their blood pressure measured. But you might, as Louise said about the anaesthesia, you might only have one blood pressure monitor and you might not have a quiet room to take them into. And you might not have two team members who are free. So it's looking at the barriers and asking the team to say what the barriers are and asking the team for their ideas of how you're going to get over the barriers, rather than somebody imposing it on them. But I mean, so that's what I think

about practices that are doing it well. That's what I've noticed about practices that are doing it well, as they really involve the team in discussing how things move on and make changes.

DT: I think that was a common theme that came up with all the talks we've had so far today is that it's engaging the team, and it's such an easy thing to say, but it's seeing people as the solution not as a problem to fix almost. And that sort of neatly links to, again, the safety I, safety II; that if we're seeing, identifying problems and how we fix problems and how we focus on the things that go wrong, as opposed to looking at, or even if something does go wrong, looking at — even if it's that person has done that process a thousand times before and done it right, why have they done it right the other thousand times and, and it's not gone so well in the last time. So the audit gives us, I guess, the opportunity again to involve the people and understand what the people are really doing.

Ok so I guess I've got some more sort of general questions now. So all of you, to pick up on some of the stuff we've talked about. I'm interested to know. So we get to a point where something, whether it's a process or an outcome that's audited and got the data, a change, an intervention of changes — whether it's a guideline, whether it's an introduction of a checklist, whether it's a change to some training processes. As Pam said, there's so many different changes and it's the change that matters. But the next stage is to actually understand, has that change had the desired effect, has it had any effect, and so I'm just interested to know generally what your thoughts are around when you would consider to review, to re-audit, and sort of the implications from that point onwards. And this is sort of open to all of you really. So, to see what's said, and actually if anything comes about it. Anyone, any takers?

LN: It depends on what you've audited actually, specifically. So, for my anaesthesia one that was a big chunk of patients over two months. And that was a lot of time, it took me hours to process all of that. So for me to do that sort of for two months, every six months probably isn't realistic, if I'm honest, in how everything is for me at work. So what I decided I would do instead is just pool sort of 20 patients here and there, and just see how we were doing. So looking at those things that were not done before or where we had complications, all of the things I looked at, I adapted our monitoring forms to make sure that information would be recorded. Most of the time is, but it's a clinical form, so that's another audit in itself, making sure your staff actually complete forms and have the time to do so. So that's what I tend to do, spot checking now really here and there when I have time. And that's not so organised, but if I do notice anything, particularly if there's anything significant I'll raise it. But to be honest now that's more surveillance on form filling out because that's more of the problem than the problems I'm seeing, because we are much more aware now of the complications we encountered through that audit and therefore are on it and taking action much more effectively and quickly. So yeah.

DT: Any other thoughts on, again also the regularity of re-auditing, because it can be hard to know maybe sometimes whether we come back to it in a month, two months, three months. Do we then have a regular process whereby we re-audit every six months? Is that something that you have any guidance on?

PM: I think you should look at it every six months to eight, 12 months depending on what it is and decide then whether, I mean, I think you need to do a re-audit, but when you do it depends on the individual circumstances of that particular thing. But it's very important, you haven't finished the whole process if you don't do a re-audit. You've got to monitor, you've made a change, but has it really made a

difference? Not just a subjective feel of whether it's made a difference but actually has it made a difference.

DT: I guess it makes me think a bit about, there was a reference earlier in the first talk of the day around this expression that some of you, if you were here you may remember, this idea of hitting the target but missing the point. And I just think that, so many people probably heard that and in some way or another they can relate to that concept that, and I think this is maybe the concern for some people when it comes to audits, that if we look at something very specific and we have a particular target that we're trying to, or something that we're trying to understand, a criteria that we're trying to get some information on. And then we make a change and we demonstrate that we've improved that area. There's a concern, maybe, that that will be at the detriment to something else. If you focus on one thing for a long period of time and all your focus is on improving that area, what implications is it having beyond that particular area that you're focusing on? So, have you experienced anything around that in the processes that you've been involved in?

LN: I would say it really narrows your mind, staying focused on one area, because I often find, it's like you're doing one thing but then all of these other thought processes come off of it and then you've got all these other little projects going on as well. I don't know how you all feel about that, because I know you do the ongoing audit as well [directed to Richard].

RB: Well I suppose the fact that ours is live means that if someone has a thought process about if we change this, will it improve that, or would it make any effect? And because it's essentially a live feed, we can actually more or less see that happening in real time, which is a fantastic facility to be able to see it. I joke about the peri-operative antibiotics, but yeah, great. We decided to do it. They've done it, not telling the boss, so to speak, and used his own database against him…

All: [Laughter]

AT: Just that sort of approach to analysing the evidence, incorporating an assessment of welfare and cost has changed the way our teams approach everything, really, and the more we do of it, the more used they get to making those judgments in all areas. I've no intention of generating a clinical guideline for absolutely everything. It's just not practical and I don't believe it's going to be particularly helpful to do that. But I think it does change the way people work.

DT: Again, it's something that came up earlier around different types of work, either whether we categorize them as sort of simple, complicated or complex. And there's other areas that have been classified as to whether certain tasks are considered to be very safe tasks and certain tasks are considered to be very dynamic and what they would consider to be highly adaptive tasks. And if something is a very, very safe task, then as long as you come up with a process, then it's likely that the rest will follow. Whereas if you're doing something high dynamic in the middle of something, quite complex surgery, you can't have a procedure for everything. If you try and proceduralise everything, you actually stifled the ability to get the job done. And knowing that balance, and I think this is maybe the concern sometimes if we try and create too many protocols, guidelines and checklists for everything, then we're actually stifling the ability for that sort of freedom to adapt.

And knowing the difference between something which is simple enough and predictable enough that actually just having a procedure. I think like, we're flying, like starting an engine on an airplane. As long as you do that, then that, then that, then that, 99.999% of the time the rest will follow. And so as long as you have a process, it means those things happen and that's all. Every time you're going to get the job done really well. But when you have, you're going to have moments like everyone's watched the film Sully and both engines stop and you have to suddenly come up with a plan. You can't have a procedure for that. And if you try to, you're to stifle their ability to do the job. And I'm sure the same applies in these situations, knowing when to provide structure and when not to. I don't know if that's something you've ever come across.

RB: That's something else that we've looked at, where you've got a procedure. I'll give a simple example. We do a lot of work for a rabbit charity and we spay an awful lot of rabbits. And what I discovered is that the guys have the small animal manual and they're there and they weigh the rabbit, and then they all sit down with a calculator and they go through and they work out the six or seven different drugs, write them all on a sheet with all the appropriate times. It probably takes a head nurse probably 15 minutes to do it. And not only was this a very bad use of time, there's also the possibility of error.

So we looked at our IT system and we said, do you know what? We can automate this process. So now the only thing that even the most junior nurse has to do, is to enter the weight of the rabbit and it will automatically calculate all the intervals, all the times, and all the drug dose rates. And this has given us a really consistent anaesthesia for rabbits. And the other thing that we've discovered is the guy said they're taking a little bit long to recover. Maybe we can just alter one of the drugs slightly. So we altered the drug slightly, but put that into the equation. So instantly from that point onward, every rabbit was receiving the adjusted dose rate to much greater effect. And this is the sort of thing, this reduces error and it makes the whole process become much, much easier.

We had a similar sort of thing, we had new graduates joining us and they haven't got a clue what the drugs are. So we wrote a nice little spreadsheet for them with all our drugs and all the dose rates on it. And they carry these things round, guard them with their lives, laminated sheets, 'this is my drug sheet'. And then we found that some of us older codgers were asking, could we look at their sheet please? Because we wanted to know what was happening and we thought, do you know, why don't we make this thing dynamic? So we've in fact now got a drug database and we've categorized all the drugs on it. So people like me consulting think, 'Oh I want a heart treatment' — I just type in heart. And it gives me all the drugs for that particular dog, a little explanation about what each one does, all the dose rates, everything on it. And I don't even have to think about it. And some smart alec comes along and says, there's two types of Symetra — fine, they just add it on the database. I do correct that bit so they don't add it wrong. And then you've got that instant information and it makes life so much easier, takes out so much time. But that's an error reduction process as opposed to a QI... it is QI but it's a different, it's a different.

PM:...Error reductions are really important.

RB:...It's important. Yeah.

PM: As Angie said earlier about medicine errors, and Shobhan said right at the beginning about how many medicine errors there are. It's just horrendous the amount of medicine errors in the NHS. We don't even know what our level of medicine errors are, but I mean, there are drugs that look the same,

ones that you have to type an awful long way across on the computer, and before you differentiate to one another, or drop down boxes with the sizes, which you've got to put your glasses on and so on. It's very easy to make mistakes, isn't it? So anything that'll cut down those mistakes. So things like where there's two syringes in a Meloxicam-type product, whether it's a large syringe or a small syringe, just give the owner the syringe that's the correct one for their dog. Don't give them both. The number of times a four kilo dog has had the 40 kilo dose because the owner's just got four in their head and uses the other syringe. So those things are such a good idea and just cut down the possibility of errors so much. And that's definitely QI.

DT: Yeah. So in writing simple solutions to known issues, it's not stifling anyone, it's just helping get the job done. Absolutely. So I'm interested a little bit, one of the topics has come up that we've already mentioned is that of engaging the whole team and making sure everyone's in, as many people are involved in these processes as possible. Have any of you experienced any barriers, any resistance, anything that's got in the way of engaging in that buy in from people involved when it comes to, I guess any of these processes that we've mentioned really.

LN: I think time. Time for the individual that's doing the QI, because it does take time. But once your practice are on board and they understand the value, and they can allocate you time, it's not a problem. I have had a little bit of resistance prior to giving, sort of, the data to the team. So when I first said I'm going to do an anaesthesia audit, I want to look at all of these factors and this is the reason why everyone was like, oh gosh, you know, I'm going to make loads of changes. Like, oh, some people really hate change, don't they? And I understand that, I am not one of those people that hate change, but some people do.

Engaging with the team was by far the best thing. So giving them the results, saying here you go, have a look at this. And they were like, "Oh my gosh, this is so interesting. I can't believe this." And then even before I started the conversation about what should we do, they were saying, "Oh, maybe we could try this" and "Oh, maybe we could try that." And I was like, bingo. So that was great. And because of that, some of the changes involved, protocol changes in regards to drugs and also patient management. I arranged CPD for the team as well, so everybody really understood deeply why we should potentially change what we were changing. And then actually it wasn't that hard at all. It was absolutely fine. But getting everyone to feel like they're involved in it and it's not you running the show and telling everyone what to do. It's not that at all. It's what we should all maybe be doing a little bit differently. It's all about the wording really.

DT: That language came up again, the use of the subtle differences and how the language can be used and the impact that will have on how people feel. And again, the feelings side of this has come up a lot today as well, isn't it? And I think something that Shobhan also mentioned earlier, I think it was the transitional, I've actually made a note of it cause I always forget. The William Bridges transitional model and it's that reaction to change that we all... and actually it was amazing really when you look at it, how similar it is to the grief cycle. That it's a shock, for some people it's an emotional shock. It's seen as a criticism. It goes right to the heart. It's an emotional reaction. And I just found that really interesting comparing a grief cycle to the suggestion that someone might do something differently and why they might find that difficult. Is that something you experience again as a barrier to these things?

RB: I think the barrier is change. And that's why we discovered that you can only really introduce, if you're trying to introduce a computerized process, you can only add two max, three steps, you cannot ask for anymore because everyone would just be up in arms with it. So you have to really design it from the user's perspective, not from the IT professionals perspective. I think this is one really big mistake that, all these practice management companies, bless them, they come in and say, of course it works like this, but in reality people say, I just want it to work and work quickly without interfering with my life. And that's really what's got to happen. Yeah. So you've got to really put a lot of thought. I think the same would go if you're introducing paper procedures or whatever, it's somehow got to fit into what they're doing with minimal disturbance. So a small, and you're probably better to introduce small changes subtly. Okay. So you introduce two steps. You want six. So you introduced two let that run for three to four months. They see the benefit of that and then you introduce another two and let that run and then introduce another two and let it, sort of drip feed it that way.

DT: Yeah. Taking into account how it might be perceived, how people might feel, and what might be those barriers. Yeah. Again, any other thoughts on it?

AT: Yeah, I mean making it accessible is really important. So when we first had our guidelines, I printed out a load of them and kept them in folders in all the work areas. But then I realized that updating these folders was just going to be a nightmare and wasn't going to be sustainable. So we then had them on our intranet, but our intranet is not particularly well designed and it takes way more than three clicks to get to clinical guidelines. So we developed a, just a link. Our IT team put a link to the guidelines on the desktop and I encouraged them to open it at the beginning of the day and then just minimize it. And that makes it very accessible. I think getting people involved in the creation of them is an obvious solution to getting buy-in. Not everybody wanted to be involved initially, but I think as time has gone on, then I think people are coming around to the idea and those that were initially reluctant are now quite keen to be involved.

Calling it CPD was really helpful. Everybody's got to log their hours and getting them to log the hours that they spent on this was good. I think you've got to give people time as well. There's no use expecting them to fit this in in lunch hours or at the end of work. So there is an investment in terms of reduction of clinical work or provision of locum cover in order to get it done. And the other thing we've done is we do audit our guidelines. So we look at the cases and see how well the guidelines have been followed and we audit our high spend cases. So we isolate, it's the usual 80, 20 rule, 20% of our cases cost 80% of the money. So we look at a selection of those cases and we get the teams to look at them. So asking them for their opinions on where the guidelines were followed, whether it was good use of money, communication with the client, welfare of the animal, and score it on a traffic light system. But all of those things I think give our teams the sort of ownership of the process and I think has made a big difference to how much uptake there's been.

DT: Hmm. I think that is a big concern. Certainly the thought process for a lot of people considering this is the buy-in, the motivation, engagement, the barriers, all those sort of things. And I think there's something, certainly something that I've seen is that consistency and sometimes realizing that you might not get immediate buy-in. You might, some people might struggle with it for a while. And that was part of what we saw from this model that we looked at earlier, was that actually just sticking with it. And just, knowing that over time, as long as you do explain why, as long as you do consider why it might be challenging for them. Just continue and actually eventually the consistency and especially when the

results start to come through and people see positive change, you communicate positive change, they can start to see that. It might take quite a while but it does take that patience I suppose sometimes. So any other thoughts before we sort of open it up to more general questions? Any other thoughts on this engagement, buy-in, barriers, side of things from anyone?

PM: I agree with Alison. The main thing is to explain it, really, to the team at the start and give them time to ask lots of questions so they don't have worries about why you're doing things. I think, and then once it gets going, I think because you are actually, when you start auditing things, you often get this Hawthorne effect where the thing just improves. Because everybody knows you're watching it. So that can be quite a positive motivator in its way. And then teams within the practice, within a big practice team, other teams in other areas will start to compete on that, 'Why can't we do this as well?' And I think it's so positive for people's motivation and mental health actually. Because they feel they can bring things up. They feel they can discuss things. I think wellbeing is such an issue in our profession that having a practice that's open and we can discuss all these things and people can feel safe to discuss them is really important.

DT: Yeah. Such a strong link to the psychological safety and just culture. The way people are heard, the way the information is received. And again, some of the Sidney Dekker information on just culture is that the response to events, and communicating what changes occurred, and what good is coming from these things is big part of it. And although it's not necessarily only about adverse events but the same principle here. So I think it's probably a good time to see if there's any questions from, from anyone. I don't know if we're able to use anything from Slido, or whether it's easier to just use the microphone, but are we able to do that? Well we're just going to use a microphone. Okay. Any questions at this stage from anyone in the group, about anything that's come up at all? We've covered quite a lot of information there. So we've got something over here.

Audience member 1 (AM1): Hi, I just got a question in terms of, we've got a new team that are going to go Gung Ho for all of the quality improvement and everything, which we're really excited about, but I'm just wondering how much time do you think is feasible to allocate them to do those particular audits and processes? 'Cause I just want to give them what they need, but at the same time not take away from their clinical duties as well. So, I don't know if you've got any tips in terms of where to start in that area of just time managing it all.

LN: I get on average between a half day and a full day every other week. But that is for, I audit every single patient that comes in for an anaesthetic or sedation. Now that's, I've been doing that since June this year. That's been just over a thousand patients in that time. And because we have Teleos, our practice management software, so I have to extrapolate the data from there into a Microsoft spreadsheet. So that takes me a long time, although I've got really speedy at it now, so that's good. But yes, I have at least a half to one full day every other week for audit. And that's looking and that's not just recording, but then it's reflecting and brainstorming and communicating with the team as well.

AT: We're auditing cases like the high spend cases, then we usually allow somebody half an hour to look at it. So most of them will actually, they enjoy it. So they'll do it in their own time, but they're at liberty to block off a couple of appointments in the diary on their clinic day in order to do that. As I said before, if somebody is researching a topic for a clinical guideline, we'll give them a day off rota. And then obviously the big time investment is the meeting to discuss everything. Time is a problem and it's always going to be a problem. But I think if you can re-frame what you're doing in other ways, so instead of just

seeing it as a cost of time, you are seeing it as quality improvements. You might get better outcomes. You might get more turnover. You can consider the CPD value of it, the team building value of it. Then perhaps it doesn't seem so expensive.

AM2: Sorry, could I just add, as a practice manager, if you're getting quality improvement and we're getting better outcomes, then hopefully we have more satisfied clients and fewer complaints. And it's easier to deal with those complaints if you know that all of the hospital sheets, the anaesthetic sheets, everything has been completed properly and that we're actually monitoring. Because inevitably, there will be outcomes that are not as good as we would hope for, all sorts of factors. But it's a lot easier to explain that and gives the owner much better data and a much better response to enable them to understand why something for their particular pet may not have been quite as good as we'd all have wished it to.

DT: Do you think sometimes that, just following on from that, that sometimes it takes an, almost a longer term view to get the payback almost these things. And one of the figures, I can't remember the exact figures, and someone else may remember from Shobhan's talk earlier, that they ended up saving I mean this is big numbers being a big trust with 14,000 staff. But, the numbers were something like £3.2 million saved. And it turns out that the actual cost upfront was £100,000 it took to make that £3.2 million saving, which on the face of it in that moment, £100,000 might've seemed like a lot. Wow, we're going to spend a hundred grand to get nothing immediately back from it. But over the period of... not that long a period of time they saved £3.2 million. So just seeing that long-term view I suppose.

Any other, any other questions, thoughts, anything that's not come up, isn't it?

LN: If I can say about when you first start looking at data, so when I first started doing vetAUDIT, looking at post-operative neutering complications, at first we didn't make massive improvements and I thought, Oh gosh, you know, I've been looking at things, changing little things and it hasn't made a big difference. But that's, the part of it is working out what it is that isn't working and making it better. And what it was for us was this very simple thing of introducing pet shirts to dogs to prevent wound interference. 'Cause you know as soon as the owner gets the pet home and they take the Buster collar off, because the dog doesn't like it and they lick their wound and then it breaks down and gets infected and gross. But if you can sort of just change your post-op care instructions you give to an owner; that was a game changer for us. Like with your intradermal sutures as well. Cats aren't going to chew out their skin stitches if they're not there because they're under the skin and they're much happier. So it's like thinking about all the influencing factors to why things are not improving or you are the way you are. And it can be a bit frustrating cause I wanted it like [clicks] that. But, yeah, it took time. So I mean we still do have bad months but not as many.

PM: Let's do a little advert for vetAUDIT at RCVS Knowledge, if everybody would submit their data to vetAUDIT, we're going to get so much more out of it. And also there's canine cruciate registry which has started now it has started doesn't it? Yeah. So that one is recording the results of all cruciate procedures. It doesn't have to be referral place. Doesn't have to be a specialist. It's just recording all the data and that should be really valuable when the data's been collected. So these benchmarking exercises, I think there's going to be more and more of them because that's what we perhaps suffer from a little bit from not having those benchmarks or those standards compared to the medical profession.

DT: Yeah. It's just data generally. Richard, what you explained, the 10,000 reports over 10 years now all the data you've got, the benefit that is to you at anytime...

RB: ...It's very very helpful, but it's being able to analyze it is the skill. Yeah. It's really, really neat.

PM: The whole profession data will be even more powerful.

DT: Exactly. So that's what I mean, if you're getting that from one practice, imagine once we start to combine that and that comes from these audits, from collecting your own information. Also from tools that were mentioned earlier, such as like VetSafe and other sort of event reporting. So the more data we've got, the more we can do in this. But sometimes seeing the value in that in the short term, in isolation, seeing what's the benefit from reporting that in this moment, maybe not much. But when you combine it with all the other information, sometimes it's impossible to foresee what you could do with the data until you've got it. So is there anything else that stands out? Again, if you want to sort of even ask each other, or you've got a free opportunity, but if not, I suppose in summary I think it's been really interesting.

We've had a chance to touch on all sorts of aspects of the audits, the outcomes of the audits. And not just the audits but what you can do with it, how you can review it. Hopefully answered any questions you might've had. And said from my perspective, from the patient safety side of things, all the stuff that comes, a lot of the initiatives that have come out in patient safety, sort of programs, checklists, improving handover and other communication structures, all sorts of different things involved within those projects. And ultimately it does save lives. You know, we just look at one project in isolation. We look at the World Health Organization research into checklists and the 18 month project around the world. They found an average 47% reduction in avoidable, what they consider to be avoidable death rates.

And this is something that, this is a tool that we'd have evidence for exactly how it can be used, what it should look like. And we've got the guidance now, really, really helpful guidance around how that can be adopted. And we've got an idea of the sort of improvement that can come as a result of that. We've talked about the financial improvement that was experienced from these sorts of projects. So it's just, I think it's incredibly valuable, so I appreciate everyone's time. I guess that's my sort of summary on things, unless anyone's got any other questions and I think, everyone start making their way home. Thank you very much.

[Applause]

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