QI Boxset: Checklists, more than just a piece of paper.

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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 going to talk to Luiz Santos. Luiz is Senior Clinician in Anaesthesia at the University of Glasgow. Hi Luiz.

Luiz Santos:

Hi, Pamela. How are you?

Pam Mosedale:

Good, thank you. And we are going to talk about checklists today. So, I presume, Luiz, as an anaesthetist, you're probably a fan of checklists, are you?

Luiz Santos:

Oh, yeah. Checklists are my thing, and I believe could be a lot of people's thing about patient safety. But yeah, we often do use them in anaesthesia, it helps a lot to track some incidents, or prevent them in fact, incidents from occurring.

Pam Mosedale:

And have you seen occasions where errors have been prevented using checklists?

Luiz Santos:

Oh, absolutely. We're using it quite often here where I work at the University of Glasgow. There were instances where pop-off valves were left closed when they were checking, and it's, whenever we do the checklist prior to anaesthesia, they often get ticked and often get picked up, which can be quite critical if you forget something like that and it's closed, and you connect to a patient. Intraoperatively, I had some situations where blood loss was not communicated, or was picked up on, on the checklist that we have, that the communication was initially minor blood loss, but then obviously, it was more than just minor. So, I think that communication intraoperatively was helpful to at least raise that concern. Yeah, and antibiotics are often on the checklist where we often forget the timing to give them, which is quite important. So, those are some of the examples that are quite useful for using the checklist. Yeah.

Pam Mosedale:

Absolutely, and so you use a pre-anaesthesia checklist, but do you use a surgical safety checklist too? Is it all one document or two separate documents?

Luiz Santos:

Yeah, no, it's one document. And in fact, I want to update our anaesthesia record, putting a couple of tick boxes, especially for drug calculations, a second person checking, or a second person checking the intubation of a patient and ticking the box on the anaesthesia record. That's my plan for the future. But currently, yeah, it's just one document that goes on the patient's file at the end of the procedure that covers the anaesthesia component and the surgical component. So, there are a lot of pauses along the way that, three or four pauses that we have along the way that covers anaesthesia and surgery.

Pam Mosedale:

And how do you find your team are about using this? Is everyone happy to use it?

Luiz Santos:

It's a mixed feeling. That's a good question. It's mixed feelings. We are a big service with a lot of people in anaesthesia, nursing staff that often changes, and new person's coming in training, surgeons, and not only surgeons but medics as well. So, it's a big referral hospital. So, the buying-in idea is a slow process. It's not an easy process that everyone will get used to and the importance, I think is... I guess it's important for everybody, but there's a perception that anaesthesiologists carry the burden of using them more than other disciplines. And I wish to see that use more often in ICU, checklists when a patient is on a ventilator, for example, you know, medics when they're checking their endoscopes prior to use.

Luiz Santos:

So, there's so many...The scope is vast, you know, you can use it in so many areas. I guess the critical component of anaesthesia, putting patients at risk under anaesthesia, I guess, precludes the use of it more often. But, or doing the surgery on the wrong leg, but, yeah, no, it is a difficult buy-in, including in my service, but I guess, the more we talk about, the more we meet after an event, if you do it via M and M rounds or interviews with the individuals, people will be buying in more. Yeah, that's the idea.

Pam Mosedale:

Yeah, no, I think you're right. I think after something's gone wrong, often it gives people the impetus to start using things like checklists. But I agree with you too, that they're so useful in other areas. I think case handover checklists are really useful too.

Luiz Santos:

Absolutely, absolutely. Case handovers, yes. Written... A lot of people do verbal handovers, but sometimes written by checklists, and it can be simple 3, 4, 5 questions, doesn't need to be more than that, you know, about the patient, how well was the anaesthesia, handing over to the nurse, the temperature of the patient, the last time he had antibiotics, those things, it makes life for the nurse or for the vet that's taking over so much easier.

Pam Mosedale:

It's so easy to just miss one thing out, isn't it? Our minds are so full of so much stuff that it's so easy to miss one tiny step, and just missing out one piece of vital information can be so important.

Luiz Santos:

That's exactly it. I was thinking to myself the other day, it was like, we're humans, we're capable of so much stuff, you know, creating amazing things like ships, skyscrapers, and architecture. But we all make mistakes, you know, despite the fact that we are so smart as a species, we all do mistakes. You can be the best surgeon in the world, or the best anaesthesiologist in the world, or the best medic, you will make a mistake one day. And it might not be just one time, sometimes it's once a month, you know? One thing that attracted me to the checklist was the book, The Checklist Manifesto by Atul Gawande, that sparked, and I believe that sparked in so many people, not only in healthcare or veterinary practice, but in so many industries the idea of how important it is. Such a simple task of ticking a box that will help our cognitive ability too. "Yes, I was tired, I was hungry, I came from a heavy shift and I forgot about doing that. And by having this piece of paper in front of me actually helped me in a stressful situation."

Pam Mosedale:

Yeah, I'm a huge fan of Atul Gawande as well, and I love that book. And when you look at his..., From that first use of the checklist, right back at the World Health Organisation, when they surveyed the people who were using it and apart from the fact it massively reduced deaths and infections, I think the real telling one was 93% of the people involved said if they were having an op, they'd like a checklist to be used. I thought that was a really telling statistic. But you talked about introducing some new parts in your checklist, the tick boxes, but it's not just about ticking boxes, is it with checklists?

Luiz Santos:

No, no, in fact, it's more than that. I think ticking a box is one component, but it's the connection you make with people, breaking the ice of "I can't speak up", the psychological safety environment where a nurse or even a student nurse doing anaesthesia with a nurse can speak up and say "are you guys okay if we pause here just so we can double-check everything is in order, that this is the correct patient, this is the correct procedure we're doing, the estimates of blood loss, the antibiotics", et cetera, et cetera. The ability of people to speak up and introduce themselves makes it more humane and makes more people… again, breaking the ice in starting communication. Oftentimes you see surgeons are doing their thing, the anaesthesiologists, and the nurses are doing their thing on the anaesthesia side of things, there's always a curtain in between them, and communication is zero. So, by allowing that communication to flow, it can spark great communications, great stories. So, it's more just, in my opinion, just a tick box.

Pam Mosedale:

No, I think you're absolutely right. I think it actually makes people into a team, doesn't it? Rather than, as you just said, the anaesthesiologist, surgeons, and nurses, but instead of that, they become a team, don't they?

Luiz Santos:

Yeah. And a team, Pam, doesn't necessarily need to be 4, 5, or 6 people. The team can be, especially in private practice, oftentimes we see a surgeon and a nurse doing the procedure. A team can be a duo. In referral places where we have a multitude of specialists, I often get baffled by the dialogue between a surgeon and anaesthetist, and how it can be good, but it can be really bad. I guess having the checklist, allowing that communication between a specialist anaesthetist and a specialist surgeon to communicate about issues, even if it's intraoperatively and hasn't been done before going to surgery, but allows that communication, that build-up of that team, to talk about the issues, about the concerns about what we're going to do for post-op pain for this patient, um, uh, builds up. So that's, I think it's fascinating as well.

Pam Mosedale:

Yeah, absolutely, and that thing about looking into the future and thinking what might happen, I think that's really important too, isn't it? What could go wrong here?

Luiz Santos:

Yeah, I think that's important because it prevents mistakes. And again, as I said before, we're fallible human beings. We will make mistakes, and by talking to each other, that communication, building the team, I can guarantee you fewer mistakes will happen.

Pam Mosedale:

And is this what they mean by the term situational awareness?

Luiz Santos:

Yes, I guess situational awareness is being aware of what is around you, with the problems that surround you, what's going to happen, and foreseeing what's going to happen. And I guess anaesthesiologists, in a sense, have an ability to multitask and to think ahead and creating this situational awareness that you said, that we know how important it is knowing how much blood loss a patient is having, you know, and checking the blood pressure and communicating with the surgeon about it. "Look, I'm looking at my blood pressure and it's falling here, it's plummeting, and is everything okay with your area? Is the patient bleeding on your side of things?" So that communication, that situational awareness, is important during any procedure, it doesn't necessarily need to be a surgical procedure. Any procedure that you're doing in your clinic.

Pam Mosedale:

And you mentioned the senior surgeons and anaesthetists, and as you said earlier, I think, there's a bit of hierarchy isn't there in the theatre and the fact that the nurses, if they've used the checklist, might feel a bit more empowered to speak up. I think that's important, don't you?

Luiz Santos:

Yes, absolutely. The empowerment of nurses is something that needs to happen because of the hierarchy that we see so often in healthcare or in veterinary medicine, I think we should flatten. But always there is scope for somebody taking over, somebody is in charge, especially if a surgeon is doing with a nurse, a procedure, any kind of procedure or a medic is doing with a nurse, a procedure. I think that empowerment of speaking up, you're allowed to say that in a psychological safety environment where a nurse can say, "look, I'm having issues here. I'm concerned about this patient." And oftentimes you don't see that, and that puts the patients at risk. So, when you see two specialists talking to each other, obviously the hierarchy will be shared, the patient responsibility, let's say, is shared between an anaesthesiologist, a senior anaesthesiologist, and a senior surgeon, that patient, now, the responsibility is shared. It's not only one person that is responsible for that patient, and I believe that's key.

Pam Mosedale:

Yeah. And the whole team are all wanting the same outcome, aren't they? That the patient survives anaesthesia and surgery.

Luiz Santos:

Absolutely

Luiz Santos:

Goes back to his owner, and that's what we need to frame at work, very often, is why we're doing things here, why we've come to work. We're coming to work, different from healthcare, we are a service provider, and we're also making money, but we are here for our patients, to make sure the quality of the service is adequate, that we work as a team, and that patient goes out healthy and no issues happen to that patient, or to the owner. Yeah. That's the idea.

Pam Mosedale:

Well, that's the whole point of Quality Improvement and patient safety. I think that you know, improve the outcomes, improve the care, but also for the team to learn as they go along too. And there's just one other thing I thought, I'm not sure if you're involved in these, but in private practice, of course, we don't have the luxury of having a specialist anaesthetist there. So, I wondered about having checklists for when things go wrong rather than just your normal checklist, a checklist too, you know, suddenly the blood pressure dropped, what do I do next?

Luiz Santos:

Yeah, that's something that we often teach the students, but we forget we live in a bubble in academia. We often forget about CPD with nurses and vets in private practice, I think that will be useful. And a lot of people, a lot of companies actually, they design this little frame, these algorithms, if you have problems with blood pressure, you do this, this, and that, follow those steps, which is quite helpful. It's not a ticking box situation, but it will guide you to troubleshoot something that can potentially put a patient at risk. So, I like those ideas and we should do more often for other complications such as, you know, hypothermia and high CO2 when the patient gets ventilation problems, and it gets high CO2 or a patient that is not breathing under anaesthesia. So yeah, it's important because those are the moments where you get stressed, and your cognitive function starts to go downhill.

Pam Mosedale:

Everything goes out the window, doesn't it? You just go into a bit of panic mode. Yeah, absolutely. No, that would be really useful, I think, to have those things for vets in first-opinion practice

Luiz Santos:

Because we often go into tunnel vision when problems arise. And having a second person helps to oversee what's happening. But in practice, if you don't have that, just having a piece of paper that is easy to read, simple, with a couple of items, just will help you so much to guide you through.

Pam Mosedale:

Just bring your focus back to what you're trying to do, I suppose.

Luiz Santos:

Exactly. Yeah, exactly.

Pam Mosedale:

From that tunnel vision that you so rightly described. Wonderful. So what would you say now to practices that might not be using either anaesthesia checklists or surgical safety checklists or any checklists, what would you say to them?

Luiz Santos:

I guess I would definitely recommend using them. I think it saves lives. It's proven, in healthcare, proven to save lives, improve infection rates, improved a lot of things from happening. In veterinary

medicine, it’s no different. It will improve patient safety. It will improve income for the clinic because clients will see that clinics are interested in patient safety. So, I guess the idea is to build that psychological safety environment within your practice that allows nurses, allow vets to speak up if something happens, meet with people regularly to talk about the problems that you have in the clinic and try to troubleshoot how we're going to solve those problems. So bring the team together to solve the problems together. And by institutionalising the checklist, you can create a checklist that is for your practice, that will work for your practice. It doesn't need to be a copy and paste of what other people do, do it based on what goes wrong for you more often and what you think is the best for the patient and things that are forgotten more often. So those are my tips for people out there. And, yeah, it definitely, definitely helps

Pam Mosedale:

That's great advice. And, yes, at Knowledge we've got the Surgical Safety Checklist Manual, which has got examples from eight or nine practices including referral hospitals and first opinion practices, and equine practices. But as you so rightly say, it's got to be personalised to your clinic, hasn't it?

Luiz Santos:

Yeah. It needs to be involving the team as well. If I come to a clinic today to do an audit and say, "oh, from now on you guys are going to start using this checklist", I can guarantee nobody's going to use it. It needs to be something that the clinic buys into, the people participate in, and feedback on. So that's an important thing as well, that people give feedback on what is going well with that checklist and what's not working for them. I think that's super important because then people will feel empowered that they are contributing to something, and that it is not being imposed on them to do it. Does it make sense?

Pam Mosedale:

Yes, absolutely. It certainly does make sense. You're right, if people don't like things being imposed on them from above, they've got to feel part of it, haven't they? And checklists, like most things in Quality Improvement, are never finished, are they? They're a constant work in progress according to what's happening.

Luiz Santos:

Yeah, it's a work in progress. And like you said today at the beginning of this conversation, I'm very interested in changing our anaesthesia record, putting at least the tick box so that a second person calculated and checked that those drugs dosages are correct, you know, the route and then the patient has been intubated successfully and checked by another person. There are studies out there, but there are not too many studies in veterinary medicine, and that's what is concerning. But there is one study from my colleague, Erik Hofmeister, he did a study one year where he was reporting incidents in anaesthesia, what was happening, during the course of one year, and they sat together with their teams and they analysed the data and they said, "well, we have X number of patients that have been intubated in the oesophagus, X number of patients that the pop-off valve was left closed, so what we're going to do about it?"

Luiz Santos:

So, in the next year, they implemented this series of checklists already inbuilt into their anaesthesia record that a second person will always check if the patient is intubated correctly, if the popup was not left closed when their first check was done. So things like that reduced a lot of their incidents, and I take my hat off to him because it was one of the few studies where people published saying, "look, we have mistakes here. We made mistakes and we're doing something about it". So I congratulate him as well.

Pam Mosedale:

Absolutely. Sounds great. And that's sort of self-awareness, isn't it, knowing that these things happen. I was interested in your point where you said about the clients, and I think that's something I hadn't thought of before, but it's something when we are talking to clients about risk and informed consent, it's something where we could easily illustrate the care that we take by saying, you know, we've got qualified nurses monitoring the anaesthesia, we've got all this kit, but we also use checklists to make sure everything gets done properly.

Luiz Santos:

Absolutely, absolutely. Because, Pam, nowadays is not uncommon to get a client that knows well the healthcare field, that is a doctor or a nurse, and sometimes they ask us, "do you guys use a checklist? Do you guys review incident reports?" And I was like, "whoa. Yeah, how do you know about this?" "Oh, no, I work in the healthcare system". But more than that, I think clients, they're expecting more from us. You know, I love simulation and I had to do a proposal for buying equipment here at the university just on a site. And one of the reasons I put it on my proposal was for clients being aware that we use simulation, for example, for patient safety, and that our nurses are using simulation, like in aviation, pilots are before flying, nurses are using simulation as well to be trained. So, when they anaesthetise your pet, they're well trained. So, imagine you as a client knowing that, you as a client, knowing that we use checklists, that their patient is... We are doing everything we can to avoid patient mistakes. It's fabulous.

Pam Mosedale:

Absolutely. And we could talk about this all day, I think you and I. But no, that's amazing. And I think you've really illustrated by the fact we've talked about this for half an hour, that it's not just a piece of paper, it's a really important part of your Quality Improvement and patient safety work.

Luiz Santos:

Absolutely.

Pam Mosedale:

Thank you.

Luiz Santos:

Thank you very much, Pamela.

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