Dr. Mariam Hanna:
Hello, I'm Dr. Miriam Hanna and this is The Allergist. A show that separates myth from medicine, deciphering allergies and understanding the immune system.
It seems to me that we have these different themes that pop up in the world of medicine and have actually been so apparent in allergy and immunology to me. There was the paradigm shift years. Those were big years for us. We turned our practices on edge from absolute avoidance to feed them early and keep it often. Then came the shared decision-making era. We've talked a lot about this one over the last few episodes actually. As new emerging therapies have appeared within our specialty, it's all about choosing the right patient for the right therapy and being able to guide them along that path.
AI and virtual was the next one that was through the pandemic years. I think this one's still actually ongoing. Seems to get momentum, slows down, then picks up again. I don't think we've heard the end of that one. There's EDI, a revolution was arising across all of healthcare. Acknowledgement and awareness were our first steps. We got work to do on that one. Burnout, that was another theme that came out at some point. More so our paths to identifying it within ourselves and hopefully eventually addressing it once we understand it.
I seem to get a good handle on each of these themes as the discussions evolved and the more I dove into them, the more I understood. Quality improvement. What? I had no idea why that one stumped me. Quality improvement was something that I felt launched into from my provincial college. I received an email from the CPSO a few years ago saying I needed to complete a QI project. My heart rate went up. I read, reread, and like any responsible physician that gets an email from their college, I quickly went online and looked up, "Why me?" As I learned the CPSO initiative had selected me as a random group to participate that year.
I was one of the chosen ones. Long story short, my project was done and one of my colleagues helped me. And with its timing, we did it actually on an initiative to help our address our burnout and our health. As I've learned more about quality improvement, I actually have found it to be a fascinating process. So today's podcast is actually slightly different. I've brought in today's speaker to teach us more about quality improvement. And perhaps whether you become one of the chosen ones from your college or decide to pursue this rather intentionally, you'll be more equipped than I was.
Dr. Victoria Cook is a member of the Division of Allergy and Clinical Immunology at UBC. She has a busy community-based practice in Victoria where she sees both pediatric and adult patients. She's currently undergoing additional training in quality improvement methodology with her local health authority to learn how to make positive changes in the healthcare system. Dr. Cook, thank you so much for joining us on today's episode and welcome to the podcast.

Dr. Victoria Cook:
Thank you so much, Miriam. I am a big fan of the podcast as are all of my clinic staff, so I'm very excited to be here talking about this. Talking about, as you mentioned, this very hot topic that I am an active learner in the field of right now.

Dr. Mariam Hanna:
I think we do our best learning when we're in the thick of it. So tell me so far, what does quality improvement actually mean?

Dr. Victoria Cook:
This is a great question and honestly it was one that I was a little bit confused about until one of our first sessions this year because you think quality is a subjective statement really. There's a lot of things that can contribute to quality. Quality improvement though broadly, so this is an actual science. So in quality improvement is a framework that allows us to systematically make and evaluate changes and processes or systems that lead to measurable improvements in outcomes. And that might be... That's in a variety of fields.
So that's in the manufacturing industry and obviously we're applying it to healthcare. So in healthcare that means that we're making changes guided by data that are going to lead to immediate improvements we hope in the healthcare setting. And within the term quality, there's several dimensions that we want to take into account. So that includes things like respect, so a person's choices, safety, avoiding harm, accessibility of things, appropriateness of services and therapies, effectiveness of what we're doing, equity and efficiency.
Are we using our resources well? So all of those things can contribute to quality within the field of quality improvement. So we've been taught a lot, and I think this has come up in a lot of lectures for allergists at conferences in the last few years. We've learned about this thing called the model of improvement, which essentially outlines, number one, what is it that we're trying to accomplish? Number two, how are we going to know that change is actually an improvement? How are we knowing that we're making things better? And what change can we make that will result in improvements?
We have to decide those things as well. And after that, there's this cycle. We've heard of the PDSA cycle. So the plan do, study and act. So essentially we define our problem, we figure out what are the contributors of the problem. We come up with a bunch of solutions and then we test them with this cycle and we do it over and over again until we're making things better essentially. And it's fun. So it's iterative, right? You pick a thing, you try it. If it doesn't work, you toss it out the window. If it works, you keep it and then you add on another one. And then gradually by doing this we get better. So that I think in a nutshell is what quality improvement is.

Dr. Mariam Hanna:
But I think what gets overwhelming is it's so broad and it started outside of healthcare and then we're incorporating it in healthcare. And then the last part that you mentioned is it's iterative. Well, it has a set beginning I guess when you're starting to approach it, but essentially the end point can keep moving and moving along with you with perpetuity. I think that adds to the complexity of it in my mind. So can you help me understand, has the focus and quality improvement changed in medicine?

It was in manufacturing before and now we are applying it to patient care or patient care delivery. How has the focus on quality improvement really evolved in this past few years?

Dr. Victoria Cook:
Yes, that's a great question. And I think just looking at medicine and how we look at quality as a whole. So there's a bunch of papers on this and they taught us in one of our first sessions' medicine. Initially the model was very paternalistic. You have the doctor, you trust what the doctor's doing, and then you get to those quality assurance years. And this is also when you were talking about buzzwords in the intro, I was thinking about this. As a trainee, I remember the people counting to make sure everyone did the hand hygiene thing on the ward, and then the signs in the ICU like 10 days since the last line infection.
So quality assurance sort of preceded quality improvement. And this was basically a very measurement based set of tools to try and focus on what was going wrong and measure stuff and make sure we were adhering to best practices so that we didn't have those bad outcomes. So if you're thinking about health outcomes as a bell curve, think about that bottom five to 10%. So quality assurance was focused on the bad things and we're going to measure stuff and make sure we adhere and we're going to get rid of those bad things.
It didn't necessarily make everything else better, but it did. It helps to get rid of the bad things. So that was quality assurance. And then over the years now and our healthcare systems are becoming increasingly complex. So quality improvement is a much more collaborative, open communication model where the goal isn't to focus on the bad stuff. And in fact, you're looking at the other side of the bell curve. So you're focusing on that five to 10% of things that are the good things. And saying, how can we make that better? And so your goal with quality improvement is actually to shift the whole curve to the right. So you're making the whole system better. So I think that's the goal. So it's very collaborative. It involves our teams and these small incremental changes that can then have a really big impact.

Dr. Mariam Hanna:
I really like that positive twist on it to say we are trying to shift the curve up. I remember as a medical student, I had this project where I was supposed to pass out these red tags to everybody that was not doing all this, and it felt very punitive. You were very scared to implement anything because you didn't want to penalize anyone.

Dr. Victoria Cook:
That's exactly right. That's the shift.

Dr. Mariam Hanna:
So we're trying to shift the curve up in allergy these days. Why do you think we should grasp onto quality improvement? And I know this is kind of a personal opinion here, but

why do you think it should be incorporated into our practices in allergy and immunology specifically?

Dr. Victoria Cook:
So why should the college be randomly selecting people who must do [inaudible 00:09:07]

Dr. Mariam Hanna:
I know. Why me really why? That was stressful.

Dr. Victoria Cook:
So I think that's a great point. Why should we care about this? And I think honestly, one of the coolest facts that they told us in one of our sessions early on was that QI reduces burnout. And this is so timely for us right now. The pandemic was hard. Healthcare delivery has been hard. It's stressful. The system is overburdened. We have a long wait times. There's a lot of problems. But they've shown that when people are involved in quality improvement projects, they're communicating about what's going on, they're coming up with solutions, they're enacting them and they're seeing change.
That actually helps to reduce measures of burnout. So I think that's a pretty compelling reason to participate. The other piece is that as I was first learning... So before I started this course, I've attended a few other seminars in the years preceding this. And I thought to myself, "Wait, we're doing this already." So all of us, our colleagues are actively engaged in QI, but just perhaps in a less formalized way. Maybe we're not doing all of the measurements to really check and see what we're doing, but all of us, in our clinical lives, not just clinical, your personal lives too.
You're going through things and you're like, "Gee, that didn't go great. What am I going to do to make that better?" And then you're trying to make those changes. So even think of running a clinic, "Oh man, we had a lot of no-shows last month. Maybe we need a new reminder service. Maybe we need to call them twice. Maybe we need a no-show fee." And you're enacting those things to try and improve those sorts of outcomes. So I would say we should care because you're already doing it. You might as well do it right and then take advantage of all of the positive outcomes that you can reap. And it's also kind of nice, I think it's more accessible.
So I'm a community practitioner, so I work in an allergy clinic in the community, but I'm also affiliated with the academic institution and I'm trying to do some academic stuff and research. But research I think is hard. It's awesome. I love it, but also hard and maybe less accessible sometimes for those of us practicing in the community, managing a busy clinic and higher patient loads. And QI is something that is accessible to everyone and it is a way that you can participate in making patient outcomes better in your own very local environment, which is such a cool thing to do.
So we can all make our patient's lives better and our own lives better by participating in QI.

Dr. Mariam Hanna:

But you're making it rosy. Tell me challenges. There's challenges in implementing QI. If it's all rosy, I hit roadblocks when I think of QI projects. My ideas are very good conceptually in the 30 seconds that it takes to come up with them. But what are common challenges we incurred in QI?

Dr. Victoria Cook:
Absolutely. So this was so funny. So at our very first... I started this training in August. There's a cohort, a group of us who are doing it. We had these really grandiose plans. We've applied to this with, "We're going to do all of these things, we're going to change the world." And we go to the first session. And essentially what happened at that session was like everything got chopped down. So you had this big grandiose project and you left there with this tiny, little modified piece of it and you were sort of like, "Well, I'm less excited now."
And I think there are lots of challenges. And I think the biggest one is you really need to focus on what is in my sphere of influence? What can I change? Because if you are trying to change things that you have no control over, you will be unsuccessful in getting anything done. So that I think was one of the key lessons because when we're thinking problems in healthcare, there's so many, but you need to focus on the things that you can actually change. So I think that's probably challenge number one. And then challenge number two is buy-in.
So you have to get other people specifically in your local environment who you're going to get to do this stuff with you. You have to convince them that this is fun and worthwhile. So you really got to sell it. You got to come up with your, "They tried to get us do your elevator pitch." You have to make people care about what you're doing so that they want to help you do it. And then you want to make sure that you have the right supports in your environment so that you can carry out the plans you need to do.
There's actually a tool that they took us through where you can take your project and you answer all of these questions about other people in your environment, the resources you have, and it gives you a score. Should you bother doing this or are you not set up for success? And I thought that was really cool. So there's definitely challenges that I think that we address by trying to make sure that we're doing something, that we have the resources to address within our sphere of influence.

Dr. Mariam Hanna:
You can tell you love QI, you took the challenges and flipped it on me to ways that we can get through the challenges. All right, you're good, Dr. Cook. I caught onto that. Can quality improvement help improve our patient-centered care models? Is it all mechanical and background stuff or can it actually happen to improve our patient-centered care?

Dr. Victoria Cook:
This is an awesome question and I think it absolutely does in so many ways. So within the clinic, again, we're using this all the time. So one great example. So I'm fortunate I get to work with Dr. Scott Cameron and his team in our clinic. And one example that we have is our anaphylaxis response. So allergist, immunologists, we're constantly causing

anaphylaxis in the clinic. So every week or two we have an episode of anaphylaxis. So keeps us on our toes, but always we want to do the best job we can responding to that medical emergency when we have it.
And we certainly have lots of opportunities to improve based on the frequency that it happens. So I had, think two or three in a row, adult male patients sit in my waiting room with symptoms starting and not saying anything. One of them even was Googling symptoms of anaphylaxis in the waiting room and didn't say anything. He didn't want to overreact. It's always these guys, they're like, "No, I think I'm fine." But then they weren't fine. And so we said, "Gee, there was a delay there," but just because we didn't know there wasn't overt symptoms that we could hear, we didn't know what was going on.
So we said and asked, "Hey, what could we have done so that you would've spoken up sooner?" So now we got these signs plastered everywhere, "Say everything." We remind people at their visits, make sure we've got all of the staff is so well attuned. If someone so much breathes heavily, they're on it. So those are the sorts of changes that you can make in the clinical practice.

Dr. Mariam Hanna:
I get excited about workflow. It's like my own personal gem. I'm all about practice efficiency in my time in clinic. I want to be very efficient with how I use it so that I have a life and obviously other things that I pursue in my life. But is QI something that I can incorporate or apply to help with this kind of passion to optimize workflow?

Dr. Victoria Cook:
Oh my gosh, this is the best application of Qi, Miriam. You absolutely can apply this to everything. Everything you do in the office.

Dr. Mariam Hanna:
It's about framing it. I just need to call it [inaudible 00:16:13] qi. This is QI.

Dr. Victoria Cook:
And it's going to get better. And actually if you were to enlist your staff members in this, you could even make this a thing that you don't even have to direct. So this is one of the things. So my project is looking at how can we see infants that are referred for food allergy, how do we make sure that we don't delay in seeing them? That we get those kids seen within one or two months of being referred. And so that piece, there's so many things in that.
So the referring doctor has to send in a referral. Someone's got to see that in the inbox, they've got to upload it. You've got to correct all the information. Sits on a triage list, someone's got a treat... So there's all of those pieces. And when you're looking [inaudible 00:16:53]. What's something that bothers you in your clinical day? What's the thing that's annoying?

Dr. Mariam Hanna:

The wait times while they're waiting between testing, when they're in my office. There's really an opportunity where they can already be telling me their information or telling one of my staff or uploading that information online. There's a gap, right? Because I think once you practice for long enough, it's a series of 10 questions for each condition and it leads you down a different pathway and the tree is all solidified in your mind. And you have to say a couple flags to veer me off, but I feel like I could be automated and then I could move on in a faster way to help patients.

Dr. Victoria Cook:
And then focus on the management aspect, which is really where you want to spend your time. So there's lots of different things that you can do with that. And you could chat with your staff and ask their input, could you have them... Are they filling out an intake form ahead of time? Is that something that they could do in the office? Is that something that they could do from home? Did you know oceans? You can program oceans. So it essentially has them fill out an intake form with all of the questions including in a hierarchical fashion, like you take your history.
And then it will give you a pre-generated consult note so that you even have to type less and spend less time on your letter. So these are things, right? So what you do is you say, "Well that's annoying." And then you think, "Okay, well what are all of the things that are contributing to that patient weight?" And then you think, "Well what things could I do that are relatively easy, not going to cost a ton and that are going to have the biggest impact on that?"
And then you pick one of those and you go with it and then you can say... And you want to make sure... What are you measuring? That wasted time. So you can try and keep track of that over time and see can you reduce that.

Dr. Mariam Hanna:
In a sense, quality improvement is rechanneling my annoyance into action and optimizing work.

Dr. Victoria Cook:
That is it.

Dr. Mariam Hanna:
I'm liking this even more. I can see where this grows on people once they understand it a bit more. You mentioned it a little bit in triaging and working collaboratively. How does collaboration work in the setting of QI with other healthcare professionals? Should we be doing QI projects with the pediatrician and the referring family doc as well? How far out does this extend beyond our office walls?

Dr. Victoria Cook:
That's huge. So collaboration is really everything. Collaboration and communication is how we make change. So within the formal framework of a QI project, you want to come up with your project team and you want to think of everyone. So when you look at the

process, that's a potential problem for you. You want to think everyone who touches that process, I should have some representation of them on my project team. So in my case, because I'm the referring providers, play a large role in patient counseling, which impacts how soon I see the patient and how the patient fairs.
So on my project team, I have a pediatrician, an emergency physician, a family physician. I have a patient, right? Really important. That's a really important one to get their viewpoint along with my awesome medical office administration, our nurses who are amazing. So everyone has a role and they have input on those initial suggestions. And I think my initial brainstorming, so I thought I had a pretty good idea of the process and ideas of what to do about it.
I went and had a meeting with our nursing and our awesome administrators and there was 50 more ideas that I would never have thought of. So you're taking advantage of all of this brainpower and people who have different perspectives from you and it is so valuable. The other piece that in our group they're really focusing on is the role of executive sponsorship. So that's what this executive sponsorship sounds like, a bit of a buzzword. But basically if you're working within a health system and you think, "Where does my project interact with the system?"
So initially I thought like, "Gee, I would love when patients are referred for food allergy in infancy." I want them to already know that they should be eating those other allergenic solids, eat them immediately. They should already have an EpiPen if there's a concern. They should know how to use it. So there's these key pieces of counseling that I want to make sure are given to the patient before they're referred to me. And initially I thought, "I'm not going to be able to really reach the emerge docs to get them to do this or same thing with the urgent care clinics."
But it turns out I have on my project team as far as executive sponsorship, I have a couple of members who've been so instrumental in hooking me up with the electronic medical record in the hospital systems. This won't be immediate, but later on. Maybe I can have an influence on the automatic handouts that are generated when someone makes an allergy referral. That's so cool. That's a major impact. And similarly, another project team member oversees a lot of the primary care clinics and urgent care clinics and has been very helpful.
And she's going to help me arrange to speak and do an educational session about my project and see how we can facilitate making sure that counseling is given even from those urgent care centers. So I think if you want things done, thinking of both your local, everyone that your project might impact or be impacted by. And then also who can help you to actually achieve things in the broader system, getting them involved and then making them see that your project is important is so helpful and also such a great way to spend time with your colleagues and see the ways that different projects can interact.

Dr. Mariam Hanna:
I want to pick your brain. This seems time-consuming, this seems time-consuming, but I thought I was trying to make myself more efficient. I don't mean to derail you, but does that build frustration for you to say, "I had this great idea and it'll take two seconds to

implement." But this sounds like months and maybe system change years before we see that.

Dr. Victoria Cook:
I would say that in a lot of these cases, these are things that we're going to do anyways. So you're motivated to get out of your office more quickly and to make those patient visits more efficient. So you're already thinking about what should I do? And I think when you're going to take the time to intervene, you really do want to know is it actually effective or not? Because what if you paid for this service?
Say you had an AI generated note taker, what if in the end it actually took you longer and you weren't monitoring that? And then now you're actually spending more time than less. You want to know and you want to actually take that little bit of extra time upfront to know whether or not what you're doing is successful because then that ultimately is going to save you time later. So I agree.

Dr. Mariam Hanna:
God, I have totally experienced that. I bought a Dictaphone and it turns out I hate talking to an inanimate object. Flashbacks.

Dr. Victoria Cook:
Totally right. So you want to know is your intervention working? And I think there's other ways to reduce the time that you spend on these things. This is a thing that you can also ask your team to do and to monitor for you and make that part of your regular office team meetings. So you can say, what's our project?

Dr. Mariam Hanna:
All right, how do you envision quality improvement changing in our field? What's going to happen over the next five to 10 years because, or as a consequence of quality improvement? What's your vision? What do you think?

Dr. Victoria Cook:
I think what we're already seeing is increased uptake of these ideas. And it's not... Like I said, people are actually already doing quality improvement, but I think we're going to see increased uptake of the use of the formal structure and monitoring. Especially in the field of allergy and immunology, I think our Canadian allergist immunologists are already doing a really impressive work in this field. So I see this becoming just sort of more ubiquitous and I think you're going to see more health authorities in provinces demanding it, whether that's part of your college registrations or this awesome funded cohort that I'm in right now.
So I think BC is really doing it right by providing funding for clinicians to get this training so that they can in turn better the healthcare system.

Dr. Mariam Hanna:
Ontario, BC has figured it out correctly. Sorry. Keep going.

Dr. Victoria Cook:
Absolutely, plug for that.

Dr. Mariam Hanna:
This is subliminal messaging. All right, time to wrap up and ask today's allergist, Dr. Victoria Cook for her top three key messages to impart to patients and physicians on today's topic, quality improvement, specifically in allergy and immunology. Dr. Cook, over to you.

Dr. Victoria Cook:
Thanks Mariam, and thank you again for this discussion. It's been really fun. I've enjoyed talking about quality improvement in all of its applications. So my three take home messages. So the first one is that everyone can do quality improvement. You are already doing quality improvement, you just need to keep doing it. The second take is that QI is really essential to help us provide the best care for our patients. And these small iterative changes to how we practice can actually make a big difference in how our patients experience care and their health outcomes.
The third one is that not only is it better for your patients, it's also better for you. So it is the antidote to burnout. So when you have a rough day, take that time to think about how you could make it better. And then you want to make sure you plan, do, study, and act. And then everything will be smooth.

Dr. Mariam Hanna:
And with that beautiful finishing statement. Thank you Dr. Cook for joining us on today's episode of The Allergist.
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