

## **Dr Manju Chandran's interview with Daniel Martin from Health Matters on Channel News Asia (CNA) – May 31, 2022**

Daniel Martin:

Joining me on the show, back on the program, Dr. Manju Chandran who's Chair of the Asia Pacific Consortium on Osteoporosis Singapore, or APCO. Doctor, welcome back to the show. Hello, good to have you back.

Dr. Manju Chandran:

Daniel, it's wonderful to be back on the show, and it's always a pleasure to answer your sharp, probing, intelligent questions, and share what I know. So, thank you very much for having me on the show.

Daniel Martin:

Such kind words. Thank you so much. So, this new kit is called the APCO Bone Health QI Tool Kit. This was just recently launched on the 24th of May. Before we go into what exactly this kit is, and how it works, and who it's for, let's talk about the bigger picture, the overall situation here, the background to the development of this Tool Kit. Because we do have quite a bit in terms of burden when it comes to osteoporotic fractures, don't we?

Dr. Manju Chandran:

We do, definitely, Daniel. And I think you hit the ball on the bat when you said, you quoted some of the grim statistics that most of us already know. It's a very well-known statistic that by the year 2050, half of the world's osteoporotic fractures will occur in Asia. And even though what we call the age-standardised hip fracture rates are decreasing in some ethnicities, for instance in Chinese, for instance in countries such as Singapore. Because Singapore, for instance, has one of the worst fastest aging populations, the absolute number of fractures is going to increase.

Dr. Manju Chandran:

So, for instance, in Singapore, it's estimated in 2017 there were about 15,000 osteoporotic fractures. And this is actually predicted, we have actually shown, we have predicted that this is going to increase over 24,000 by the year 2035. And that's almost a whopping 58% increase. And with the proper treatment, we could actually avert up to 29,000 fractures and save, again, a whopping 330 million Singapore dollars in Singapore itself. So, these are huge statistics and grim statistics which we have to deal with.

Daniel Martin:

Grim indeed, my gosh. So, taking that into account, and then this idea of what we're seeing with the APCO Bone Health QI Tool Kit, as well, what's the impetus behind developing specifically this kit?

Dr. Manju Chandran:

So APCO, as you again correctly phrase, stands for Asia Pacific Consortium on Osteoporosis. And we are a very altruistic bunch of healthcare experts from across the Asia Pacific region. And currently we have 46 members representing 20 countries and regions in the Asia Pacific. So APCO launched in May 2019 and in early 2021, APCO's first project developed the world's first dual continental pan-Asia Oceania standards of care for the screening, diagnosis, and management of osteoporosis. So those were about 16 standards, and these were developed by the APCO members.

Dr. Manju Chandran:

And like I said, we represent multiple stakeholders, healthcare systems, private, public healthcare systems, and practices. And we did that, we developed this pan-Asia Oceania minimum standards of care for the screening diagnosis and management of osteoporosis because we felt that there was a complete lack of harmony between existing osteoporosis guidelines in the Asia Pacific region.

Dr. Manju Chandran:

So, this was an attempt to harmonise the guidelines, make it easier for the healthcare provider who is grappling with this big problem of osteoporosis to deal with osteoporosis, the various facets, and manifestations of osteoporosis. So, some of those 16 standards are more applicable at healthcare policy and guidelines level, what we call the top-level systems. But seven of the standards, of the 16 standards, are directly applicable to routine clinical care of osteoporosis.

Dr. Manju Chandran:

You as a patient, you go into the hospital or the medical centre, the clinic, and the osteoporosis healthcare provider, the osteoporocian, we have talked about it before. The osteoporocian is actually obliged to actually make sure that you, as a patient, gets the most appropriate care for the osteoporosis. And these seven standards which can be applicable to routine clinical care, we decided that it will be helpful for healthcare providers sitting anywhere in the world, actually not necessarily just in Asia Pacific.

Dr. Manju Chandran:

And that's the beauty of this Tool Kit, this can be utilised by healthcare providers anywhere in the world to audit their own practices and to see whether, and how it benchmarks against the gold standards of care, which are advocated in the APCO Framework. And such a tool, it had never existed before. We had isolated toolkits for maybe one aspect of osteoporosis cases, say for fragility fractures, management of fragility fractures. But we did not have any toolkits in the world to date, which covers so many aspects of osteoporosis care, right from screening to diagnosis, to assessment and management. So, this was what the background for the development of this APCO Bone Health QI Tool Kit was.

Daniel Martin:

So interesting that something like this did not exist. Why is that the case? Is it because there were no benchmarks? Is it because nobody had taken the effort to try and create those benchmarks and those common points and touchpoints? Or is it because it's just too different in different regions?

Dr. Manju Chandran:

No, the benchmarks exist. I mean, gold standard was one of the problems because there's so many guidelines out there. But the guidelines are out there, but what guarantee do you have that those standards of care advocated, and all these guidelines are going to be implemented in the clinical practice? And what guarantee is there that these standards of care are being followed?

Dr. Manju Chandran:

And a healthcare practitioner, I am a consumer and osteoporocian too, so my practice might be a little bit different. But for the average healthcare provider, who's sitting in his or her own practice or hospital, doesn't know whether the way that he or she practices is really the gold standard of care. And to put these together into a toolkit which would make it easy for the healthcare provider. We are all, I mean, most of us healthcare providers, are clinicians, we don't know how to do QI projects. We don't know how to conduct an audit. So, this Tool Kit actually provides the ABCDs, literally, if you put it very simply, of how the healthcare practitioner can implement an audit in his own practice, and subsequently follow with a quality improvement project.

Daniel Martin:

That's a good point. Now that you've phrased it like that, I can see it actually in that regard. So how would somebody actually utilise it, and how could it benefit patients? That's something I want to talk about in the next segment. As I was going through the kit, I realise that there was an emphasis on this PDSA cycle. And you broke it down into that PDSA cycle. Walk us through what this is, and why it's important?

Dr. Manju Chandran:

So PDSA is actually a quality improvement strategy that tests a change in a small scale. And then the PDSA builds on the learning from these test cycles in a structured way. So, for example, even you, if you want to improve your CNA938 live broadcast, you can actually implement a quality improvement project in your radio station actually, on CNA, using a PDSA. It's such a quality improvement strategy.

Dr. Manju Chandran:

Again, I mean, you, me, we are not the QI experts. We don't know how to do it. And so what the APCO Tool Kit does, is it provides clear instructions on how not only to conduct the audit in the first place, but subsequently, how to implement a QI project using the PDSA cycles. And PDSA stands for Plan Do Study Act. It's an acronym which stands for Plan Do Study Act.

Dr. Manju Chandran:

So essentially, each cycle, these are iterator cycles. You can keep repeating them. So you conduct the audit, you find out that there are these gaps in your practice. So now the next step is, how can you improve the quality of your practice? And that's how you can employ this PDSA process. And so plan is basically developing a plan to test the change. You want to implement the change, right?

Dr. Manju Chandran:

'Do' is actually carrying out the test, doing the test. And then 'S' stands for study, which is observing and learning. You have to reflect on what you have identified. And then 'act' is us planning the next change cycle. So, these cycles, you can keep on repeating them till you get 100 per cent of course. But for most people, obviously that's not possible. So, you possibly do two or three PDSA cycles to improve a particular aspect of your care.

Dr. Manju Chandran:

And it can be applicable to anything, not just healthcare. It can be applicable to, like I said, even your CNA938 live broadcast, if you want to use it. So yes, that's what a PDSA stands for.

Daniel Martin:

We're learning more about the recently launched APCO Bone Health QI Tool Kit. It's a world-first really, and this health resource hopefully can help stem the tide of fractures in the Asia Pacific, and maybe even around the world as well. We're learning more on today's edition of Health Matters as I speak to the Chair of the Asia Pacific Consortium on Osteoporosis, APCO, Singapore. I've been learning more from Dr. Manju Chandran, who'll be back in a moment in the next segment. Stay tuned.

Daniel Martin:

It's worrying to hear that a condition like osteoporosis is a very common disease and is probably quite badly under-diagnosed and under-treated across the Asian region, even for someone who is at very high risk of getting a fracture. And that's the problem, right? We don't want the first fracture to happen. It's said the number of hip fractures, by the way, are projected to more than double in Asia from 1.13 million in 2018 to 2.54 million in 2050.

Daniel Martin:

We need to understand what can be improved, what protocols can be in place, how healthcare facilities and practitioners can make that change. The APCO Bone Health QI Tool Kit, newly launched May 24th, learning more about that. APCO stands for A-P-C-O, the Asia Pacific Consortium on Osteoporosis. The Chair, Dr. Manju Chandran, speaks to me today.

Daniel Martin:

Doc, let's talk a little bit about who this kit will be for. Reiterate, remind us about that. How will it be, how shall we say, distributed or circulated or gained access to? Who is this for and how is it going to be utilised?

Dr. Manju Chandran:

Daniel, thank you again, I'm back. So yeah, the Tool Kit is actually, we are providing it as a free resource to healthcare providers across the world, like I said. So APCO took on this onus of developing this Tool Kit and it's accessible to any healthcare provider who requests it through the APCO website. And there is a link actually on the APCO website, [apcobonehealth.org](http://apcobonehealth.org), [A-P-C-O bonehealth.org](http://A-P-C-O-bonehealth.org), and people can easily access the Tool Kit. You can just send in a request and we will give you the link to download the kit and start using it.

Dr. Manju Chandran:

So how the Tool Kit can be incorporated into a healthcare provider's existing practice is, because like I mentioned earlier, it can streamline the information on how to engage partners in implementing these audits and QI programs in their respective centres. How to form a team, what questions to ask, and then how to analyse the findings. So, it literally sums up the entire QI pathway for healthcare providers.

Dr. Manju Chandran:

It's primarily meant for healthcare providers dealing with osteoporosis because, like I said, never before it has anything been developed in osteoporosis so far. So essentially, because every patient with osteoporosis and a fragility fracture, and or a fragility fracture passes through a number of points in their journey from diagnosis, through to treatment and to follow up. And what happens is that there can be many gaps in this as the person progresses from screening and diagnosis, all the way to management and follow up.

Dr. Manju Chandran:

And so this APCO audit, the Tool Kit, focuses on investigating this patient pathway and helping the healthcare provider to identify the gaps or missed opportunities for patients. And then through the PDSA activity, which we talked about, enabling the healthcare provider to improve the quality of care of his or her practice.

Daniel Martin:

Are we worried that there could be, I don't know, clashes with their existing protocols that might be in place in the individual institutions or countries?

Dr. Manju Chandran:

That's a fantastic question, actually. I mean, APCO, we set up, when we first formed in May 2019 itself, one of our cardinal truths was that we'll be very bipartisan and non-political. So our guidelines are in the Tool Kit; none of these are prescriptive. We are not saying that people should follow these. These are very non-judgmental and we call it guidance rather than guidelines. So, no, I do not anticipate that there are going to be problems. And again, the actions located in the Tool Kit, it even provides tips and tricks, so to speak, for the healthcare provider to collaborate, or to work collaboratively with his peers, with his or her peers. So, I do not anticipate that problem, but good question.

Daniel Martin:

How will you benefit the patient, the man on the street, at the end of the day? That's next, stay tuned.

Daniel Martin:

We've learned about how the medical institutions, the medical practitioners, can avail themselves of this QI Tool Kit, the APCO Bone Health, QI Tool Kit, how it could be quite seamless to integrate it with their existing approach, how it could actually help streamline and benchmarks certain elements for them as well when it comes to the treatment and prevention of osteoporotic fractures. And we don't want that bone fracture to happen, reduce those numbers in the Asia Pacific region as much as possible, especially since its forecast to increase as much as it is.

Daniel Martin:

Dr. Manju Chandran joining me on today's edition. Doc, at the end of the day, what does the launch of this Tool Kit mean for the average person, the man on the street? Because it seems like we've been talking more about the healthcare institution and the practitioner?

Dr. Manju Chandran:

Again, on the point as always, Daniel. That's ultimately who this was always supposed to benefit. These guidance's which we developed, all the Tool Kits or the education slide modules which we developed earlier last year, these are not developed by people sitting in ivory towers or research ivory towers, and not suited for the patient. These ultimately benefit the patient, because the gaps that are identified and the steps taken to rectify these gaps, to ditch these gaps, are for real patients, their path.

Dr. Manju Chandran:

I talked to you about this patient with osteoporosis walking through a number of points in their journey from diagnosis through the treatment and follow-up. So their path through this often circuitous what we call 'Bermuda Triangle' of osteoporosis can become a lot easier. So ultimately, the patient with osteoporosis, or who's at risk for osteoporosis, and is at risk for fragility factors, is the one which who benefits from these, all these Tool Kits and guidances, and educational modules.

Daniel Martin:

And when the patient is benefiting from this, I guess the best part about it as well is we're not going to realise in a way.

Dr. Manju Chandran:

Yeah, exactly. I mean, it is seamless. So, it's seamless at the backend when this is happening seriously. So hopefully when this is into the process as we call it, across the world, the patient should be afforded a seamless journey right from the time that he or she is screened for osteoporosis, all the way up to treatment. And then even after treatment, follow up care, including falls risk, including making sure that they're screened for medications which may be associated with bone loss. Including they're screened for conditions that are associated with bone loss.

Dr. Manju Chandran:

So ultimately, the patient shouldn't realise that there's so much furious activity going on in the backstage. I mean, to him or her, he or she gets the best possible care, that's all.

Daniel Martin:

And the best possible care, as I've always emphasised on my show, and I've said multiple times in this show as well, let's not get that first fracture to happen. Let's get that screening. Let's get that prevention-

Dr. Manju Chandran:

Exactly.

Daniel Martin:

...in place all together. If we were able to beef up and buck up on that, can we turn these numbers back over the next two decades? 319 million people aged 50 plus from the Asia Pacific projected to be at high risk of an osteoporotic fracture. That's huge!

Dr. Manju Chandran:

It is, it is. And I talked to you about the statistics in Singapore, and we have actually shown that initiatives though a preventive and a treatment at the right time can avert up to, for instance, in Singapore, 9,000 fractures per year. And this can actually save over 330 million Singapore dollars annually, which is not a small amount. So yes, we can.

Dr. Manju Chandran:

I would like to end the show with a very positive end, my presentation with a very positive note. It is possible. And we are seeing, we are actually seeing some improvements in Singapore, for instance, lots of activity is going on at the Singapore General Hospital, Osteoporosis Society of Singapore, the Bone Health Alliance, all these organisations and units working together. We are being able to make a difference. And if we continue on this path, and what APCO has now provided the world with, I definitely think we should be able to stem this tide very successfully.





Daniel Martin:

Because if we can make that screening process and identify early... I should also add medications and treatments are getting better as the years go on.

Dr. Manju Chandran:

Exactly.

Daniel Martin:

And that means that it's not a done deal that you're on this steady decline towards an osteoporotic fracture, with the right medication and care treatment, as you've just said.

Dr. Manju Chandran:

Exactly. Now, but only thing is, and what we hope to do, is to help block what we call an osteoporotic fracture cascade, even before it happens. So with screening, with the proper screening and prevention, we may be able to prevent the first fracture from happening. But even if the first fracture happens, at least we now know what to do to prevent a second fracture from happening. And that can save millions, not only money-wise, but also a patient's life. Which you very rightly pointed out in the beginning.

Daniel Martin:

Doc, always a pleasure. Thanks for helping my listeners learn more about this. Dr. Manju Chandran there, who's Chair for the Asia Pacific Consortium on Osteoporosis, Singapore. We've been discussing the newly-launched APCO Bone Health QI Tool Kit, that was just launched May 24th. It encompasses multiple components in the screening, the diagnosis, and the management of osteoporosis. I'm Daniel Martin, thank you all for joining me and for tuning in to Health Matters.

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