

Understanding complementary medicines and their potential interactions with cancer treatments

So it isn't going to make their quality of life worse? Are they're gonna get more side effects with this? Or is it just a potential interaction that you don't know much about? That's where you weigh it all up and come up with the solution for the patient. Rapid listening. Evidence based cancer learning on the go, presented by eviQ Education. Hello, rapid listeners. Today we're going to be talking about complementary medicines and how these can potentially effect or interact with anti-cancer treatments. And to give us some insight on this one, I'm joined by Dr Geeta Sandhu, who is one of our cancer pharmacists working in eviQ, and also our local expert on this topic. Welcome Geeta. Hi Lisa, hi listeners. Okay, so before joining us at eviQ, Geeta worked clinically as a cancer pharmacist for 13 years. She has a PhD in the impact of increasing patient wait on the dosing of high dose methotrexate chemotherapy in non-Hodgkin lymphoma. And she has also performed roles in medication safety and academic teaching. She's also a member of the Executive Committee for the Cancer pharmacists group with COSA and she's also the co convenor for the foundation course for cancer pharmacists run by COSA. That was a mouthful Geeta. Is there anything that I missed? No. No, I think you succinctly summed that up. So, before we kick off, I really think for the sake of everyone listening, who isn't a pharmacist that we should define what we mean when we say complementary medicines and also what we mean when we talk about interactions with anti-cancer treatments. Sure, that's really good questions. They're complementary medicines or medications are often referred to as adjuncts to your normal, conventional treatment that you might be having for some sort of health situation, and in this case, cancer. So, examples of those would be things like homeopathy and natural medicines, vitamins, any of the traditional Chinese medicines, Ayurvedic medicine. So there's those sort of things that you ingest, you take in or you apply on the body for some sort of pharmaceutical effect. That's essentially what we felt was medicines. And then when they're used with the chemo or the radiation, therapy they're complimentary. So that's how we define it in Western society. And I guess interactions wise, I know there's quite a few, but I guess to break it down into the four big points. You know, as health professionals working in cancer, you want to be aware of things that could go wrong. And I guess the interactions are, um

firstly, you know, if the complimentary medication that the patient might be taking might actually do some sort of antagonistic, or some sort of effect that works against what the chemo or the radiation is trying to do, And a good example of that might be things like antioxidants. Another interaction is when the drug itself so the complimentary medication interferes with how your cancer chemotherapy drugs are moved around the body. So how they break down, how they're removed from the kidneys and the liver and so forth. That can have a significant effect on, on the effectiveness of the cancer chemotherapy or the fact that you might get more toxicity. The other way is if the complimentary medication or cams as we like to refer to them might actually potentiate side effects from the chemotherapy. So there's a few things out there that will cause more diarrhoea. So if your chemotherapy already causes diarrhoea, you don't want to exacerbate that. And then you've got a few, you know, cams that actually, on their own, have had some major reports about them being toxic to the body in terms of the liver or the kidneys or something else. So, you know, colloidal silver deposits often in your large organs, including your skin and over time, that can be quite toxic and reduces the ability of those organs to work properly. So, these are all things that you have to take into account when you're looking at the cams that a patient might talk about, but it's awareness that's a big thing that I want to get across out of this. Just be aware, educate and look into the facts. That is so eye opening for me. Just what you've said there. I don't think I was aware of when I was practicing clinically, and I think you've presented extensively on this topic. I can see at professional conferences and meetings, and you've obviously pointed out that it's so important for health professionals to have an understanding of how complementary medicines can affect cancer treatments, just from what you you've said. Yeah. Just there. So, people often think of complimentary medications as being natural and therefore not likely to do any harm because you can buy them at a supermarket or over the counter in a pharmacy, or you can just, you know, go to a herbal practitioner and get whatever it is they might decide to make up. We can buy it online, too. But these things are medications. A lot of our cancer drugs are actually naturally derived. So they originally come from plants, or from certain elements. And therefore, you know, we use them in cancer to treat cancerous cells and therefore you can't just assume that these things are innocuous and not gonna do anything because there are some major things that can happen. I mean, a really interesting example is in radiation therapy. There was a mouthwash going around a while ago which was supposed to basically help - apparently kill cancer, and it had colloidal little silver in it. And as radiation therapist, you would know that any sort of metal inside your mouth

during radiation to that area was actually going to be quite devastating. And it was. Like people ended up with really, really bad mucositis and ulcers and so forth. So I can imagine the increase in skin reaction that you would get with something like that's a very important people to be aware of. In your opinion, what interactions between complementary medicines and anti-cancer therapies do you think are most important for our listeners to know about? So I think before I listed like the four main types of interactions, But in terms of the ones that I think you see the most of, so you have to remember as well, like your patients may come and go on and off them as well. So what we do know is that, you know, between time of diagnosis of cancer and the time of first chemotherapy administration patients actually can sometimes triple the amount of supplements they take in order to help alleviate whatever they think might be coming or just to be in general good health. So things might change, but the main ones I tend to find people are often on, and I would say about 65% of your patients are probably on supplements at the beginning, would be antioxidants, and a big one is high dose vitamin C, so over a gram, a lot of patients like to take that thinking it's going to be useful, and it probably is, but there are a whole bunch of anti-cancer drugs. So things like the platinum, alkylating agents and so forth, they work to mop up free radicals - they work to - they cause damage to the cells using free radicals and antioxidants actually mop up, those free radicals, so you're kind of negating the effect potentially of this. Now all of this is theoretical, but there are some studies out there that show that there are some patients that have done worse when they're being taking antioxidants and have had chemotherapy that might actually be working that way, so, that's one to keep in mind. The other one is anything that reduces the ability of the platelets, or the blood to clot, so things that cause thrombocytopenia or potentiate thrombocytopenia, so, when I used to do, uh, talks and so forth, I used to call them the three G's. So it was Ginkgo, Garlic and Ginseng, and anyone that works in a surgical environment would know that surgeons hate those three supplements and patients can bleed out on the table. Similarly, I guess and taken in large amounts, and with chemotherapy that has the potential to cause a lot of thrombocytopenia and could have an issue with that, so, large amounts of that you want to avoid if you can. So when I when I'm talking about these things, I'm not talking about things you use in your diet. So don't avoid garlic in your diet, but taking large amounts of garlic capsules or Ginkgo or Ginseng could promote that. That's really interesting. And I guess goes to your point of what you were saying before I would never have thought of any of those things as being potentially a problem. But the fact that it does have an effect, like he said a pharmaceutical effect and can interact with a cancer medicine. Yeah, or with treatment

is a big consideration, which I had never thought about. So yeah, I think I guess the other thing I want to highlight to is a lot of this is, often theoretical, because there aren't going to be big drug company trials with these drugs, so, you you're not gonna get solid evidence. A lot of this case reports and also theoretical mechanisms of action, adverse events. So, you have to kind of draw some pragmatic conclusions with what you have in front of you and also look at your patient as well. And look at the factors that might potentiate issues. So Geeta, from your practice working as a cancer pharmacist, are there any examples of patients that you've had to counsel? Any types of interactions that would be great for our listeners to know about and that you think the people need to be aware of? Yes, so, I think one that often stands out in my mind is, we had a patient a while back, who he was having active chemotherapy for his lung cancer and he had gone to his naturopath and herbal practitioner to um gets some extra help. And he was very open with me about what he was taking and that that's another thing I want to stress. You know, asking your patient about other medications other than just their regular prescribed medications is a good way of opening this up. And he told me Oh, have been taking these little spherical balls. Okay, tell me more about those and um, and then he said, I don't really know what's in them, but I have to take 30 and I have to take it at each meal so three times a day. So then he told me who his practitioner was. So I gave the practitioner a phone call. This is kind of what we do normally in practice as health professionals, you call each other to find out a little bit more about the patient if you need more history and, uh, called the practitioner and he said, Oh, yeah, I can give you a list. And so he faxed over, he's really great, was great to work with him, and he faxed over a list of the ingredients inside the spheres. So, at the time they were written in another language so we had to get them transcribed and translated, but turned out that amongst things like sand and other fillers inside these spherical balls, there was also a large amount of crushed up apricot kernels, which basically cyanide, so, the idea behind that is that it's supposed to apparently kill cancer cells. But at the same time, it's also poisoning good healthy cells, which we don't want to do. So, um, this guy was taking quite a large quantity of these spherical balls so. I know after explaining this to both the practitioner and the patient, obviously he went off that so he wanted his chemotherapy to work well and he wanted to stay healthy during the course of his treatments. So he was quite willing to stop that but, I guess the thing is, it's a risk benefit situation. And in that situation, it's a patient. He the patient, decided that it was always going to be a better outcome for him. Hopefully to stay on the chemo and try and avoid this stuff in the meantime and also involving the cam practitioner in the whole process and getting the

right information that was actually in them before making a rash decision was also useful. But yeah, that was one that stands out in my mind. Definitely. I think you highlighted some really good points there that I know from working clinically. I found it really challenging to approach the topic of complementary medicines and how to discuss potential interactions with patients like you're saying a lot of the time it's highly theoretical or sometimes you're not sure. So given that you're a pharmacist and you're kind of the expert in this area, do you have any tips for how to counsel patients in the area of complementary medicines? Yeah, so I think I think first thing is to actually understand the patient's motivation behind why they're taking it. So you know, is it because they're trying to relieve side effects, are there some side effects that you don't know about that they're trying to sort out of their own? Also, are they taking it to aid the chemotherapy, so to make it work better? So that's where it's important to understand the reasons and the motivations behind it. Are they just taking it to please their family members and friends? And I used to see that a lot of you know, some patients were like, Oh, no, my wife wants me to take this so I'm gonna take it for a while and, or, you know, someone's recommended it to them over the back fence. This worked for me so try this. So there's a number of things that that play into that, and it's important to understand that, so their beliefs about how it works and so forth and there's a big financial toxicity to these things as well. They're not cheap. I have patients that were ordering stuff from the U. S. And they were paying \$3000 a month just to get stuff delivered to them. So, you know it's expensive outlay too. The other thing to remember as well from a clinical perspective, is what's the patient's situation, so, are they a curative intent patient, or is it a palliative patient? What stage of treatment are they having? What are the drugs involved? Or is there radiation involved because not everything interacts. There's some herbal things and there's some vitamins that are really important to take during certain parts of treatment or post treatment, so. You have to look at those things too. Is the patient cachexic? Sometimes there's certain vitamins that are really useful and there's certain protein supplements and vitamins that go with that that are known to improve a patient's quality of life as well. So, looking at all those aspects and then also looking at the drugs involved, or the treatment involved, so radiation and so forth, are really important to, I think, put into the big picture and then the other thing too is the evidence. So there isn't a lot of evidence out there that's it. There's no big, robust, randomized controlled trials looking at this and, you have to sift through things and work out. Is this a risk benefit? So is it going to make their quality of life worse? Are they're gonna get more side effects with this, or is it just a potential interaction that you don't know much

about? That's where you weigh it all up and come up with the solution for the patient. The best thing to do is be really honest about what you know, print off information sheets and there's some great websites you can go to. So, I really recommend Natural Medicines Database which is subscription only sort of portal, but it's well worth while. Another free one is the Memorial Sloan Kettering Herbs Database. That's great and it's got some patient information leaflets about various herbs. And there's a few other ones around there, so, cancer, I think, is the European one. Have a look at those and use those as ways of communicating to your patient about what you know and what the theoretical interaction is. Occasionally, the TGA might release an alert about certain herbal or natural products that are listed on there. But that also then, brings me to another point. If you are going to say something safe to use, just ensure that your patient is using something that's actually registered and comes from a reputable source. So you know, if they are going to take things that are made by a naturopath and produced and there, then ensure that you know that someone that is using reputable sort of raw ingredients. In the past, there have been instances of microorganisms and heavy metals and other pharmaceuticals actually being in some of these things. And, you know, if you've got a patient that's, uh, potentially neutropenic or immuno suppressed at some point you don't want any extra nasties involved in anything they might be taking. That's really good advice. I think a lot of that's really helpful. Um, from my perspective, coming from a radiation therapy, I learned a little bit of a pharmacokinetics when I was back at uni but it's certainly not my strong point or something that I'm comfortable in. Can pharmacists, cancer pharmacists working in hospitals should we be involving our cancer pharmacist in these discussions, if we're not feeling comfortable in discussing the interactions or potential interactions? Yes, for sure, that you're a repository of information and certainly I used to get called down to the radiation bunkers a lot to talk to patients down there, so, yeah, developing those relationships with those different health practitioners is really important. And once again, I think, if you can, in your whole process of understanding why the patient's taking the cam and so forth, if you want to involve the cam practitioner if there is one in there, that might also help as well, just to understand where they're coming from and make them involved in the process. So it's not such an antagonistic or me versus you thing. That's awesome. Thank you so much, Geeta, for all of your knowledge and all of your suggestions. We're going to post all of the links that Geeta mentioned on our website so that you can follow up after listening to this podcast if you want more information and keep your eye out for our coming episodes. Thank you. Thank you for having me . This is a production of the

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