

Scott Redding: Welcome to the 3Ps of Cancer podcast, where we'll discuss prevention, preparedness, and progress in cancer treatments and research, brought to you by the University of Michigan Rogel Cancer Center. I'm Scott Redding. We're here with Pharmacist Shawna Kraft to discuss medical marijuana and pain management. Shawna is a Board Certified Oncology Pharmacist, and is the Residency Program Director for the pharmacy postgraduate year two and oncology students. She presents nationally on several topics, including pain management, breast cancer, and melanoma. Her research interests are around supportive care and symptom management in patients with cancer, medical marijuana, oral chemotherapy, and immunotherapy in cancer patients. Welcome, Shawna.

Shawna Kraft: Hi.

Scott Redding: Michigan has had medical marijuana available for a few years now. And in 2018, recreational marijuana became legal. Can you explain the difference if there is one, between medical and recreational marijuana?

Shawna Kraft: Sure. Product-wise, marijuana is marijuana, so there's no difference in the products themselves. But who can access them and how they access them is different. Medical marijuana is the easy one in that we've had it since 2008. We have the regulations, the policies in place. Anyone, meaning of any age, can actually apply for a medical marijuana card, even patients under the age of 18. If it's a minor under the age of 18, there's some additional paperwork. Guardians have to be involved. Otherwise, you can do your own paperwork if you're over the age of 18.

Shawna Kraft: A physician does have to certify you, so there's no prescription. So the patient does not ask for a prescription for medical marijuana. They ask to be certified. So the physician ... And it has to be an MD or a DO. So those are the only two healthcare providers that can sign off on certification. Once that is done, they apply to the state, get their card, and then they can get products from a state licensed facility.

Shawna Kraft: Recreational marijuana on the other hand, we don't know yet actually. So it's the same products. So presumably, once these laws are in place, if you can purchase recreational marijuana, you're going to get it from a similar place that you would get medical marijuana. We do know that you have to be at least 21 years old to purchase recreational marijuana. That was in the law. Beyond that, we don't have any of the regulations yet. The state is working on it. Should be later this year. December of this year or beginning of January, 2020, we'll have some of that information.



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- Scott Redding: Is the potency still the same between the two, or is there differences in the makeup between?
- Shawna Kraft: Nope. If you were walking in ... Let's say today we could walk in and buy a recreational marijuana product. If you walked into a dispensary ... Or they're now called, actually, provisioning centers, because of a law that went into place a couple of years ago. You walk into a provisioning center. You want to purchase recreational. You have access to the same material, same products as a person who has medical marijuana.
- Scott Redding: Discussed a little bit here on the difference between medical and recreational. And I see a lot of places, and even I've seen stuff on social media, talking about CBD oil. And how does that compare, or where does that fit in in the whole realm of any kind of medical or recreational marijuana?
- Shawna Kraft: Marijuana comes from like the flower of the plant, and it can have several different components to it. So THC, which is probably the most well known, and that is what gives you those psychoactive effects. There are some other things: THCA, CBD, CBDA, and some other components that can come from the flower. That's where everything comes from. There was a farm bill passed in 2018 that federally allowed agriculture of industrial hemp. So it can be for clothing or other things. You can derive CBD from industrial hemp. In order for it to be sold legally, so not under like a marijuana law, it has to contain less than 0.3% THC to be sold and be legal federally from that standpoint.
- Shawna Kraft: So that's why you can see like the CBD oil all over. Technically to also be illegal, that CBD oil, they're not supposed to be selling as a dietary supplement, because that means it needs to be regulated by the FDA, and it's currently not. And if you are getting an edible CBD product, the edible CBD products fall under the either the medical marijuana, or a recreational marijuana law. So the edible products must come under that and cannot be sold over the counter, which is why everything you see is hemp oil, CBD oil ... You can kind of think of them as the same thing. That's where it's coming from. It's not coming from the flower of the plant. The industrial hemp is grown very differently from traditional marijuana.
- Scott Redding: You talk about it coming from the flower, and there's these various different levels of THC, and CBD, and AB whatever. How does that ... Is that in all forms of medical marijuana, whether it's an edible or whether it's smoke or oil?
- Shawna Kraft: Yes. So there's a ton of different formulations, actually, of marijuana, whether you're using it recreational or medical. There are oils that you can either use topically or you can use orally, smoking it, vaporizing it, patches, edibles, and every product is going to be a little bit different. So whenever they go to a



dispensary or a provisioning center, it's finding out what is in there, how many milligrams of THC, or how many milligrams of CBD. So some products are combination products, where there are some THC, some CBD. Some are going to be more THC or maybe only THC. Some may only be CBD.

Shawna Kraft: So it's finding out what you are trying to treat to figure out should you have something that's more THC, CBD, some combination of that. And then the product that you're looking at, what is the percentage of the different things that are in there? And then looking at the milligrams of that for potency to figure out, well, how much should you use? If you have a liquid or an oil, how much is in one drop? So do you do one drop, two drops? How many milligrams are in each of those?

Scott Redding: Now how is that determined on that level of you should get one drop, two drop, a full brownie, a partial brownie? How is that determined?

Shawna Kraft: Sure. Well, it's tricky because it's going to likely depend on the person that's assisting you at the provisioning center. Depending on their knowledge of where you should start, at like what dosage, their expertise on your condition that you're trying to treat, and whether it's THC, CBD, if you have any use in the past. Are you taking other medications that could be additive effects? So it depends really on the knowledge of the person that's helping you.

Shawna Kraft: I will say in general what I tell patients is start low and go slow. So understanding, depending on the product, when will you start to feel the effects? Like an edible is going to take two to three hours, versus if you smoke a product, you're going to get very quick experience, or very quick relief with that. So knowing like what type of product you're using, when you can expect an effect, and then just starting at a very low milligram. But it's going to vary on understandings on that based on who is assisting you in choosing your product.

Scott Redding: Am I able to still get the benefits if I don't want to get high from the medical marijuana?

Shawna Kraft: Yes. So it depends on what symptom you're trying to treat or what you're trying to achieve with using a marijuana product. There are some that are combination, which a lot of patients ... So the THC, which is the psychoactive component, a lot of patients don't want to have that feeling. However, it does have some benefits for like nausea/vomiting, that works well for patients. But one way to kind of help with that side effect to make it a little bit less but still get the benefit for the symptom, is partnering it with CBD.

Shawna Kraft: So if you have a product that's a combination product, that often will help you with something like nausea/vomiting, where you're not going to have that huge



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euphoria, high feeling, but you can still get some relief of let's say nausea/vomiting. You can get pure CBD products as well, which have none of that traditional euphoric high feeling, and you can still get some benefit from it. Some folks have fine pain management from it, nausea/vomiting, other additional side effects, but you can still get a pure CBD product. I will say most patients tend to find the benefit from something that's some form of combination, some ratio of a combination product, but it can help blunt that side effect of that feeling high, because most patients who are looking at this for specific symptoms don't want that feeling.

Scott Redding: Are there certain cancers or treatments that are better suited for someone benefiting by having a medical marijuana license?

Shawna Kraft: So we have data in a couple different symptoms that some of our patients see, so nausea/vomiting. There's really good data. Actually, because we also do have a product that is an FDA prescription product, that is pure THC, dronabinol, brand-name Marinol. So that is pure THC. We've had that for several years, and that has very good data for both appetite stimulation and for nausea/vomiting. So similarly, if you're using a not prescription product, such as marijuana, you're also going to have some good benefit. Sleep, there's some good data with sleep with CBD and THC.

Shawna Kraft: Pain is tricky. Most of the well done studies that are looking at pain are often looking to see if patients who are using some type of medical marijuana product are reducing their use of opioids, really, as we have this opioid epidemic in our country. If someone is going to use a marijuana product, you would think working for the pain, it would reduce their use of opioids. That has not been the case in the data that we've seen. Patients have the same amount of opioid use. So it does not appear that it's working enough for their pain that they can cut down on their opioids, at least in the well done studies that we have published.

Shawna Kraft: Anecdotally, I have patients who do use it for pain and says it works for them. But the data from a global scale doesn't support that yet. So most of it, nausea/vomiting, and sleep, and appetite, are probably the big three that have the best data.

Scott Redding: And would that be across any kind of cancer diagnosis or treatment, or is it more effective along those so maybe who has chemotherapy compared to just a surgery, or even radiation, or how does it compare for that?

Shawna Kraft: It's so tricky. I would say at this point in time with the data that we have, it would be, I would say that's applicable to all cancers. There's not enough data out there yet to say, "Oh, in this specific cancer, it's going to work best for this." We just don't have that information. What's also extremely difficult is having



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products cross-comparison trials. Everyone's using different products. The regulation is completely different. Some of the best data actually is coming out of Israel and other places in Europe where they actually have state-regulated marijuana products. So you know it's regulated as in a prescription type medication, where you know you can compare it. Everyone's using the same type.

Shawna Kraft: In the United States, we do not have that. So it's very difficult to say, "Well, this study didn't show any benefit, but this study did." It's highly unlikely they used even the same product. Different combination of treatments, how pure was their product? It is very difficult to get that information, which is probably why we don't have some of that data yet. So it makes it very difficult for patients to make a full decision, which is why we hear anecdotally a lot of people get relief on various things. And they probably do, even though we don't have the data to back it up.

Scott Redding: Without the regulation like in some of the foreign countries, how do people know that they're getting what they're getting?

Shawna Kraft: Yup. So you need to go to a state provisioning center. so a state licensed provisioning center if you really want to have guaranteed. They are now required ... I can't remember if it was as of last year, I believe, to now actually send their products off for testing. We actually have a local place around here that does the state regulated testing. And that way when you are purchasing your product, you know it has x percent of this, x percent of that in it. Some places, although this is not required by law, I don't believe, will also report out if there's mold or any contaminants or pesticides, but most places it's not required, so you may not have that information.

Shawna Kraft: I would say if you want to have guaranteed, at least somewhat of a guarantee of what your product is, go to a state provisioning center. They're listed online through the michigan.gov website. You can find like a map of where they are, so that that they're at least sending their products off. If you walk into a provisioning center and it is not directly provided to you what exactly their testing showed for that project, i would ask for it, because they have to have it.

Shawna Kraft: Some folks, I do know get it from a trusted caregiver, so someone that's growing it for them. So then they probably know their practices and their extraction, however that goes. So if they're comfortable with that, I think that's okay. It depends on how well versed their caregiver is at dosing that out. That's a little harder. But otherwise, I would encourage them, because since you don't really know, because it's not regulated like a prescription drug, is to go to one of those state provisioning centers.



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Scott Redding: You just mentioned about caregivers, that if they grow it and they extract it. What are the forms of extracted THC available to patients, and are there some that are better than others, especially as it relates to cancer patients?

Shawna Kraft: Sure. So the most common one people probably think of is smoking it, whether that's traditional, like a cigarette type device, or if it's vaporizing it, so vaping, or kind of an e-cigarette idea, but not with tobacco. There's tinctures. There's the edibles, which is the other one I think people think of after smoking is edibles. But tinctures, oils, topical creams, topical oils, patch. There's several different forms. I, in general, recommend that people do not smoke their products for a couple of reasons. Number one, it can have other toxins in it.

Shawna Kraft: As I said before, they may not be able to report out if there's fungus in it. So it's a plant. We have fungus that just grows normal on plants. Especially in cancer patients, if their immune system is down, and now they're smoking something going into the lungs that has fungus on it, they can end up with a fungal pneumonia. And I've actually seen that happen from patients who inhale marijuana. And that's not even just the smoking like the cigarette, but even like the vaporizers also can ... They don't get rid of that fungus that's on there. So it's a risk.

Scott Redding: Just like if you get a salad, you usually wash it off. You can't wash off-

Shawna Kraft: The leaf.

Scott Redding: ... the leaf. So ...

Shawna Kraft: Yeah. So I worry about that. So the tricky part is for patients who need something to work quickly, smoking's going to work the quickest. So that's tricky because if they're using another product, I encourage most of my patients to use like an edible. But it takes two to three hours for the full effect. And so that can be difficult when someone wants it for nausea. If they need something that'll work really quick, it can take a little bit. You can get an effect a little sooner, but the full effect is two to three hours. But the other forms, other than any type of inhalation [inaudible 00:00:16:11], are the safest for patients. And I encourage most of our cancer patients that.

Shawna Kraft: Also, our breast cancer patients, if they smoke it ... Marijuana is not pro-hormone or pro-estrogen. However, when the patients smoke it, there's something that happens in this smoke, the condensation part of the smoking it, that actually is pro-hormone or pro-estrogen. So of our women who have breast cancer and have hormone positive breast cancer, that is not good. So I encourage them to use other forms of it because of that.



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Scott Redding: Mentioned about the edibles. Obviously, comes top of mind is a brownie, but are there other forms of edibles outside of brownies?

Shawna Kraft: Yeah. I think the most common ones I actually see now are gummies, that yes, they do look like gummy bears, like candy, and cookies. There's other forms as well, but those are the most common ones that I've seen. I will though, if people use, just be cautious about where you have them at your home, who's around them. You hear stories on the news sometimes of kids getting their hands on them, bringing them to school, especially because some of them ... I have patients where they do look like little gummy teddy bears, and a child is not going to know that that's not a child candy. So just being careful when you buy those edibles. But yes, there's ... I don't even have patients doing brownies much anymore. It's more of the cookies and the gummies that most folks are doing.

Scott Redding: You also mentioned a patch. You said that if someone wants an immediate effect or a quicker effect to smoke it. Would the patch be a little bit quicker than an edible? Just because I'm thinking like a not smoking patch or whatever that's putting the nicotine right into the bloodstream.

Shawna Kraft: No, the patch is going to take longer because it's got to get in through your skin. But what the patch is going to give you is something that's almost more sustained, kind of something that's longer acting. So it gets into your system, and then it's kind of staying there at a certain level, versus it kind of ramps up and comes down. You take another one, goes up and comes down. Kind of gives you like this stable effect, but it's not going to be quick.

Shawna Kraft: Probably the next quickest might be like a tincture or something that you're dropping under your tongue, because of how your body absorbs under your tongue versus actually from your stomach. The absorption under your tongue is much quicker than under your stomach. Not as fast as your lungs, but much quicker than your stomach. So some of the different tinctures and things, putting them under your tongue, you may get a little bit quicker than if it's something you actually have to swallow.

Scott Redding: The medical marijuana laws have been around since 2008. It's now 2019. In this 11 years, how have you seen an increase over that time of people requesting to get a medical marijuana license?

Shawna Kraft: Sure. I think ... So initially when it was approved in 2008 and went into effect, we didn't have incredible uptake, to be honest. We actually did a survey of our cancer patients, inpatient at that time, and not that many people were really that interested in it. The people who were asking about it were people who were already recreationally using it and wanted to legalize what they were



doing. In my experience, that's really what we saw. It wasn't until the past couple of years where the uptake has been really huge. And I think, actually, from the recreational standpoint, I think from ... We heard from states like Colorado, Washington, who had that first, hearing those.

Shawna Kraft: But then I think the explosion of CBD oil after that hemp law went into effect, the farm bill, is really because it's now everywhere. And so everybody's talking about getting in on it. And with the recreational, almost decriminalizing it, I think some patients are more apt now to think about it for their medical condition in cancer, whereas before they may not have felt as comfortable. And I think it took a long time for providers to get comfortable writing for it.

Shawna Kraft: So I've seen a huge uptake, I would say, within the past year or two. I think it's owing to just being talked about overall with all the states doing it, the farm act, and then the recreational passing. It's just skyrocketed. I think when recreational, when they get the regulation figured out, I think we're going to see a huge increase in not just from cancer patients. I think we're going to ... especially college students. I think we're going to see a large increase of people utilizing, taking advantage of that law.

Scott Redding: Well, Shawna, I really appreciate the time you took today, and I think this is some really good information. I know it always seems to be an issue in a lot of different aspects. And you see it portrayed in a fun way in movies and TV shows when people have some sort of a serious disease like cancer. But I think this is really good, helpful information. As we wrap up, is there anything that we've missed, or something that you want to make sure is a key takeaway from today's talk?

Shawna Kraft: Sure. I would just encourage patients if you're going to utilize any type of marijuana product, whether it's CBD, something with THC, whatever, even if you don't have a medical marijuana card, to make sure your provider knows, because there can be drug interactions, so we need to help manage those with you. There can be side effects or other things going on. And it's not illegal for you to tell us. There's no reporting that occurs, even though, federally, it's still illegal. We don't report it, but we can help take care of you better as a patient if you're honest with us. Don't feel judged. It's very common that people are using it. So be open and honest with your provider to let them know, so that we can make sure the other things that we're assisting you with, we can do it all safely.

Scott Redding: Great. Well, thank you again.

Shawna Kraft: Thank you.



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Scott Redding:

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