

Dr. Peter Selby: Hello. And welcome to today's episode from the American Society of Addiction Medicine, ASAM Practice Pearls, a podcast series. I'm your host, Dr. Peter Selby, an addiction medicine physician. Now imagine one of your patients, an all too familiar scenario that all of us as addiction clinicians see, is somebody who you've treated for alcohol use disorder is in remission.

They're now in their 50s, but they've been smoking cigarettes for years and years, close to 40 years. After being diagnosed with lung cancer and undergoing surgery, they relapse back to smoking. Despite the best efforts with standard medications, they don't seem to respond. You've given them nicotine replacement, varenicline, bupropion—they're still not responding.

Now, we have a responsibility because this scenario is common. And every year, approximately 480,000 deaths, attributable to smoking, to this number one addiction are happening in the US. And, if you want to visualize that, that would be the equivalent of roughly one plane full of people crashing daily. And here's something that has a treatment that we can help patients with.

But how do we navigate when standard treatments don't work? How do we bring the art of treatment and clinical practice and research to bear and new ways of helping such patients who are in our Practice? In today's episode, we will dive into the complexities of treating tobacco use disorder. And I'm really pleased that we are joined by international researcher and frontline clinician, Dr. Nancy Rigotti. Welcome to our podcast, Nancy.

Dr. Nancy Rigotti: Thank you. I'm glad to be here.

Dr. Peter Selby: It's great. So, you've heard the scenario we just talked about, and this is a pretty common thing that addiction clinicians come across. And we have these medications, this first line medication we talked about, but could you spend a few minutes helping guide us and think about how do we choose one medication over the other? And what do we do when one medication isn't working?

Dr. Nancy Rigotti: When we think about medicines, what we think about is what's the most effective treatment, but we also have to think about safety and tolerability in the individual patient. And then we have to think about patient preferences because people are more likely to take and continue to take and succeed with things that they think are going to help them. So, if we think about it in that framework, from the efficacy perspective, our first-line treatments that seem to be most effective are either Varenicline or a combination of different nicotine replacement products, which means using the patch and then adding onto that as needed for controlling cravings, one of the other forms of orally absorbed NRT, which could be the gum, the lozenge, whatever. So, that's the

first-line. If that doesn't work, or if that's not something acceptable, then the second-line is to use single NRT products or to use bupropion. Those are still effective compared to placebo, but they're not as effective. And then, if those don't work, it's really time to think about combining.

And I think one of the things that we don't do enough of is now that we have several medicines, we can combine different ones. We already combine nicotine replacement products, but we can combine drugs that work by different mechanisms. almost like the way we do if we're taking care of diabetes or hypertension.

Dr. Peter Selby: Yeah, and, you know, that's really interesting. So, the combinations like combining varenicline, which is a partial agonist with a full agonist like nicotine replacement, as an addiction physician, that sort of boggles the mind because if you're treating opioids, you'd never combine buprenorphine with methadone.

But here, for the treatment of this addiction, you can, and the evidence is actually fairly good that combining varenicline with nicotine replacement does work. So, you know, that's one of the main things that addiction does, we have to get our minds around. So, if you want to comment a little bit about combinations that you find effective, or what are some of the things we need to pay attention to when we use combinations?

Dr. Nancy Rigotti: So, what we do know is that the combinations, you know, you don't make people sick doing it. My experience is that, often, when I'm using varenicline, people will sometimes cut down substantially but not quite get completely off and that adding a nicotine replacement product to their choice at that point can often kind of get them over the hump. And, I agree with you that it doesn't really make sense pharmacologically of why varenicline and nicotine replacement together would work and might even be better, but there are studies showing that they do give you some marginal benefit, not enough of an increase that you would start with more than one product, but enough that you can feel confident using a second product if the first one isn't working by itself.

Dr. Peter Selby: Exactly. So, you know, so that's, helpful. Then coming back to this patient, as we are thinking, you know, people try many times, sometimes people say 30 times, 40 times before they eventually quit. And unfortunately, they may be getting into trouble with multiple quit attempts, and they continue to get exposed to the 7,000 chemicals that are in a cigarette and 60 carcinogens.

How are you approaching patients like this in terms of helping them get motivated? And, as you're managing the motivation, how are you introducing the concepts of harm reduction into that dialogue?

Dr. Nancy Rigotti: Harm reduction is a key concept in addiction medicine, and, fortunately, the addiction medicine doctors are more comfortable with it than those of us who come from a more traditional medicine background where our idea is abstinence is the only goal. So, I think you are already ahead of the game. The problem with harm reduction, for those of us working in tobacco, is that there's a very steep slope of the curve of the relationship between a small amount of exposure to tobacco smoke and already having cardiovascular risk.

And so, you really need to get down to very, very low levels before you're showing major reduction. But I think the way to think about it is that it's a journey. And harm reduction is a part of the journey. It's probably not the endpoint, if possible, but it can be because it's better than not doing it at all. And so, I think that you can help people get a sense of control over their addiction. In the patient that you were talking about, that person must be so discouraged and, perhaps feel stigmatized and feel like a failure. So, I think a lot of it is the approach of, this is a journey and, this is a chronic disease.

This is something that we're going to have to work with over time. You know, we'll celebrate our successes, even little ones. And when we slip back, we need to think about what caused that slip and how can we avoid that the next time? So, if we can learn from our experience, eventually, we can succeed.

And often, people use the analogy of learning to ride a bicycle. You have to fall off, learn from it, and get up again.

Dr. Peter Selby: Yeah. Thank you. And, you know, we know that only like maybe less than 2% of patients who could benefit from smoking cessation medications where they double your chances of quitting and they're really good, you know, they save lives, very few people actually stay on the duration of, the treatment, which is usually 8 to 12 weeks.

And people drop off because either they feel that they haven't quit, or they've quit. And they say, why do I need this medicine? Any tips and tricks or thoughts about how we can get people to, you know, adhere to that treatment plan and stay with the 12 weeks or 8 weeks of medication that we're prescribing?

Dr. Nancy Rigotti: I think that helping people to understand that it's a process and that there are still going to be cravings and that it just takes some time to do that.

Dr. Peter Selby: Exactly. And I think people in addictions, you know, when I correlated, I'd say, you know, people say if you're coming from a 12 step, 90 meetings in 90 days, there's something about 90 days, and there's some evidence that people, if they stay continuously abstinent from tobacco for 90 days, their chances of relapsing really go down to like less than 5% potentially. So, we really have to be there for our patients in those first 90 days, especially that first week where the risk of relapse is so high. And I really like the idea of getting people to understand that it's like learning how to ride a bike and falling off and getting back on.

So, I think that is really, we do that in other addictions. This is a process. Quitting is a process. You know, you fall off. I'm here for you. We'll help you through it. So, we need to apply that same kind of thinking. I think what you're saying to us is we already got it with our approach of, recovery is a process, not an event, and stick with patients.

So, coming again, more controversial sort of product substitution. It's been said and, Russell was one of the big researchers said, "People smoke for the nicotine but die from the smoke," right? It's the smoke. Nicotine in and of itself, even though that's what got people to get addicted because of its short half-life and its reinforcing effects.

Overall, overwhelmingly, the harm of cancer, heart disease, other problems like respiratory, all come from smoke, the root of administration. And we've seen a new product, not that new anymore, but vaping products or e-cigarettes. Can you talk a little bit about this controversy that we are heading and how do clinicians like us navigate through that issue of helping people who may choose to use an e-cigarette to reduce their use?

Dr. Nancy Rigotti: Well, certainly e-cigarettes are one of the most controversial things we talk about, but I think they're important and our responsibility to be able to talk about the risks and benefits with our patients, rather than avoiding question. In fact, even asking about whether people are using these products is probably an important thing to be doing. The general public, and in fact many physicians, really have a misperception about the relative risks and benefits, and they don't understand that using these products is less harmful than continuing to smoke because of the harm that you point out is really coming from the smoke. So, the other reason that we're a little uncomfortable about it is the uncertainty.

If these are new products, they didn't come on the market as a medical product. And so, we're not sure how they'll work, for a long time. But I think that an approach that people can take is, in the US, it's pretty well-established by professional organizations that we try using medications that are FDA-approved

for smoking cessation first, simply because of an issue of kind of safety. The Brits have a different perspective on this, and they would suggest using e-cigarettes sometimes as a first-line. But, in the US, I think what's most accepted is to use regular medicines.

But then, if that doesn't work, then I think it's important to be able to have a talk with patients about the issue of e-cigarettes, and I think there are a couple points to make. One would be to let people know that e-cigarettes can help some people to stop smoking. That we have good evidence for that now. And they don't seem to have risks in the short term. We're not sure about the long term, but in the short term, long enough to get you off cigarettes, that works. If you're going to do that, then you need to switch completely because using both products doesn't reduce your harm that much because you're still exposed to a lot of smoke. And so, sometimes dual use is a partial transition, but it shouldn't be a permanent state. And then once you come off of cigarettes and you're on e-cigarettes, you may want when you're sure you're not going to go back to smoking. If you stop using the e-cigarettes, start the process as a second step to be coming off of the e-cigarettes.

Dr. Peter Selby: Thank you for that, Nancy. And, we've got a guideline in Canada called Project VECTOR, which is really to help people make these decisions that are decision aids that help both clinicians and patients make a choice about how they're going to switch over and exactly the points that you highlight have made that into those guidelines.

And obviously the Cochrane review has shown in the most recent sort of network meta-analysis. They talk about cigarettes, at least in the UK, having quite high evidence about helping people quit. Again, we're not talking about a complete switch forever.

We're talking about a short-term exposure until somebody is able to quit and stay off. So, there are those things, and e-cigarettes are not all the same. There are many different types of e-cigarettes. And so, I wonder if as the products get, you know, we have to be careful.

Those which are tobacco industry, heat-not-burn products, which are actually tobacco sticks that go into a device. And then, there are e-cigarettes that have nicotine salts that give out very little vapor and do a very little amount of exposure compared to the older generation of e-cigarettes.

So, there's a lot out there. Do you have a way of navigating or helping patients navigate through these different devices or types of choosing, even though we can't recommend it because it's not FDA-approved for cessation? How do you navigate that difficult conversation?

Dr. Nancy Rigotti: You're right. We can't. There's not really a specific product to recommend. I think the evidence is suggesting clearly that heat-not-burn products are not as safe as electronic cigarettes. Electronic cigarettes are probably a better product. So, I don't, personally don't recommend the heat-not-burn products.

Dr. Peter Selby: Yeah.

Dr. Nancy Rigotti: In terms of e-cigarettes, you're right. It's a wild west out there. Of lots of different ones, and they're changing all the time. And then, I can't even keep up with the most popular ones. One way to think about it is that the FDA Center for Tobacco Products, which regulates these devices, this is different than the medical side of the FDA, but the Center for Tobacco Products has authorizes for consumer sale, not approves, but authorizes, certain electronic cigarette products, and they have the criteria that the population benefit of these products is greater than the population risk.

And the only benefit is quitting smoking; otherwise, why do you need e-cigarettes? So, in a way, the FDA is kind of saying these products that we've authorized, we consider to be safe and well-made and reasonable. So, they're actually on the FDA website, and that might be a way of at least suggesting these ones are probably among the safer ones.

Dr. Peter Selby: Thank you. I think that's really critical and can help us, help our patients, really, by pointing to something that the FDA has put out there. So, it's not a prescription, but it's a guidance, and that's going to be really helpful. One of the things that I'm curious about is, you know, here's the thing, for people who smoke, who are stuck with, you know, feeling addicted and need a harm reduction approach, absolutely vaping devices might have that relative risk reduction that we'll always talk about.

Any thoughts about how do we help prevent young people who were never going to smoke, not play around with these devices and then find themselves dependent on nicotine?

Dr. Nancy Rigotti: I think a lot of that is the business of health policy. Although it's also the pediatricians are very active in doing this work as well, where they ask the kids about whether they're using it, often by saying, you know, do your friends use it as a way of getting people to be a little bit more honest about it. And then sort of having that discussion. So, they're very active about that and even working on vaping cessation. But for many of us who are taking care of adults, it's kind of too late. But anybody who's not a smoker has really no reason to be using these products. And non-smoker adults basically aren't using them.

So, it's not so much our problem in clinical medicine. In terms of health policies, there are a lot of things have been suggested. Some have been adopted, and usually more on a state-by-state basis rather than a federal basis. But we do have a minimum age of 21 for sale in the United States of any tobacco product. And the early evidence suggests that that may be contributing to some of the decline in vaping. We know that the proportion of high school students who have vaped in the last 30 days has gone down dramatically in the last couple of years. And it seems to be heading down in. If you look at the number of how many are actually using every day—so they might be nicotine addicted and not just experimenting—it's quite small. It's maybe 3%. So, we've made progress and some of it is with these policies. In addition to the age of sale, there's, you know, we increase the tax, the cost of the products. We limit the market—we could do a better job of limiting the marketing to kids—limiting point of sale where these products can be purchased. There are a lot of things that people have talked about, and even limits on what's in the e-cigarette, such as flavorings, which is highly discussed.

Dr. Peter Selby: exactly. So, there's so many things that can be done at a policy level, as well as at a clinical level. One of the ways I work with my patients around this, especially our younger patients, is to, you know, typically the people we see who are vaping. They're not just vaping nicotine. They're using cannabis, they're using shatter, they're using street drugs, they're using mushrooms, they may be already dabbling with opiates, they're drinking alcohol, they're down a trajectory. So, to me, if I see a young person who's coming in with vaping and unable to stop. I'm always screening for other comorbidities going on because this, even the evidence, even the population level evidence, suggests that these are kids in trouble.

Dr. Nancy Rigotti: Yep, absolutely.

Dr. Peter Selby: So, that's how we look at it and we have to sequence all of that, but just from a pragmatic perspective, e-cigarettes, the aerosol can be quite drying. And one of the things that I do, and I don't know if that's what you tell your patients, I say, do not exhale through your nose because it'll dry your nose out.

And make sure you stay well hydrated because, especially if they're going to use a vaping device, some of them try to end up grazing through the day, and they just sort of dry themselves out. And I really spent a lot of time getting them to, say, have discrete episodes of vaping. Don't just let it happen all the time, through the whole day, and pay attention.

Be mindful of every puff you take because it's not like a cigarette. You don't know when you're done. You have to stop. Otherwise, you'll get toxic. And we

talk about getting nauseous or lightheaded or dizzy. So, it's an interesting role as a physician that we have to help our people not cause harm to themselves, even if they're choosing these products.

And it's not like the person in the store tells them not to do those things. So, I think we do have a role and, and, you know. Thank you, this has been really helpful. I want to just shift a little bit to the future, what's on the horizon for addiction medicine docs to be aware of, and addiction medicine prescribers to be aware of what are some of the interventions that are in development, almost on, you know, coming to market in the next few years already in the market in some countries, what should we be looking forward to?

Dr. Nancy Rigotti: Well, I think you're thinking of cytisine, which is this very interesting medication that's been used. It has a mechanism very similar to varenicline, but it's a natural product. It's been used in Eastern and Central Europe for many years but not been available in the US or most of Western Europe.

And there is a company that's been developing it, to try to get it approved in the United States as a smoking cessation aid that we can have on the market, and I've been working with the company, so you need to understand that conflict of interest. But, they have completed two large trials to show that it's more effective than placebo in helping people to quit smoking and yet has a lot fewer side effects than varenicline, which is good because a lot of people are a little afraid of varenicline.

It also just doesn't have a name that scares people, and it is expected to be submitted, a new drug application submitted to the FDA, sometime in the second quarter of 2025, according to the company. So, maybe in 2026 it will be available and on the market, but, of course, you never can be sure until the FDA has approved the product.

Dr. Peter Selby: Yeah. And, you know, we've had this product in Canada for a while now, and it's interesting, it's a natural product. It has been the inspiration for varenicline because it's a partial nicotine agonist and short-acting. It's very well tolerated. We use it in a slightly different dosing, the traditional dosing paradigm, than what is coming up with potentially coming out in the US, but it's so inexpensive.

And, I found a paper from 1912 that, actually, cytosine had been identified in the mid-1800s. And it's so odd to me that it's taken this long for us to take a naturally occurring product that is effective and safe to bring it to market. And so, it's really interesting that here's something that could be really making a huge dent in preventing all those unnecessary deaths. And people say, well,

people smoke, and they die late in life. Actually, they're dying in the middle age, right? You know, all of us have had patients dying in their early or late fifties from tobacco-related illnesses. And here's something that one of my patients told me, that all through his addiction treatment journey, no one brought out the fact that his smoking was a problem or treated his smoking while he came in repeatedly for other addictions.

And so, it's really incumbent on us to do that. So, before we wrap up today, are there other things that you'd like us to keep in mind or take away from today's meeting?

Dr. Nancy Rigotti: I'd make a couple of points. One would be, think of combinations. One thing we haven't talked about is really the importance of behavioral support as well as medicine. We've talked about medicine a lot, but we know that getting behavioral support also increases the efficacy of medications.

And often, people will come in and say, "I've tried everything." And you go through the list and they've tried all the medicines, but they've never actually even called a quit line or had any sort of behavioral help, so that's something that's important to be able to refer to. And then I would say, make sure you can discuss risk and benefits about e-cigarettes so that you're well-informed and the patient can be well-informed and then celebrate the small successes, learn from the slips, get up, and try again.

Dr. Peter Selby: Yeah, thank you so much, Nancy. I think those are really key takeaways. And I think specifically for addiction treatment. When you say behavioral support, we do that all the time. We engage people through motivational interviewing, or we engage them in a sort of 12-step recovery-oriented approach.

And, that is all about achieving milestones—addressing the use of what this drug is doing in your life. And have very pragmatic cognitive behavioral therapies approaches to reduce your consumption. Addiction organizations and residential programs can go tobacco-free.

And there are actually residential tobacco programs to treat the significant tobacco addiction. We have one longstanding one in the U. S., the Mayo Clinic, and in Ontario, Canada, where I'm at, we have a few addiction agencies that do that.

You can come in for addiction treatment if your drug of choice is tobacco. So, I think we are beginning to see that. There's some evidence about residential

programs, clearly not affordable or available everywhere. But really, I think addiction agencies and, you know, if you're a medical director of an addiction agency, think about how you can bring in these evidence-based treatments, the behavioral treatments, you already have many of them there already. And that could go a long way in providing either concurrent or sequential treatment for people's addiction.

So, thank you so much for this. As you said, we're gonna keep in mind about the combinations, and discuss the risk-benefit if you're gonna switch away from the FDA-approved meds, and then keep trying. And thank you for talking a little bit about how we can approach the cigarette issue both clinically as well as from a policy perspective.

So, having come to that, this time went by so quickly. I'm sure we could be talking for a lot more. And so, thank you for listening to our ASAM Practice Pearls. But before you leave, I want to make sure you know that at the ASAM Annual Conference. There's going to be a vaping cessation and advice for youth, so please register now, secure your spot, and get some really practical, actionable advice.

And, for more information on tobacco use disorder, please check out ASAM's on-demand session on nicotine to learn more about use in different populations, GLP 1 receptor agonists for use in smoking cessation, comparative effectiveness of the treatment models, and more. You will find a link to the course in today's show notes.

Lastly, I invite you to hit that subscribe button. Share this episode with colleagues who may find this information helpful. And hopefully, it's accessible that even non-clinicians could benefit from listening to this.

And we'd love to hear your thoughts. What challenges have you faced in helping patients with their substance use, especially tobacco addiction, and treating it either sequentially or concurrently? What has worked for you? And again, please check out our social media and join the conversation as we discuss this further. With that, thank you for listening. Be safe, and we'll see you next time on ASAM Practice Pearls. I'm Dr. Peter Selby, signing off now.