

[MUSIC PLAYING]

ESA DAVIS: Good afternoon. Thank you for having me. I think I have the most challenging talk of the day, right after lunch. So I will do my best to try to keep everybody awake here. I have no financial conflicts of interest to disclose. So I want to start by talking a little bit about the new American College of Cardiology consensus decision pathway, so these are-- has everybody seen these or read these? These recently came out. I would encourage everyone to read them, because it's a comprehensive tobacco treatment protocol for the cardiovascular team.

And this was very exciting, because the American College of Cardiology has finally come out front to say that cardiologists and a whole cardiovascular team really should be, first of all, very well equipped to treat tobacco, but also lead in this effort to treat patients who are smoking. So I will highlight kind of the six kind of main themes that have come out of the-- that are in the guidelines. First, again, that smoking cessation is very critical to CV care, which I think we all know and agree.

That we should be thinking about tobacco dependence as a chronic medical problem. So this is more than just a behavior issue of someone who we tell, you know, you need to quit smoking. And they should go off and do it. This really is a chronic medical problem that we treat, just like we treat blood pressure, heart disease, diabetes. We should be thinking about it in the same way.

And thus, we should-- everyone on the cardiovascular team should be offering pharmacotherapy and behavior support. And it should be offered to every patient, both on the inpatient and outpatient side. And that this really should be and more of an opt-out model. We need to encourage tobacco cessation before undergoing elective surgery or procedures. This is going to be, and has been, a really major focus.

Our surgical colleagues, I don't know if any of you have been experiencing this, when you have to do pre-ops. But our surgical colleagues are not taking patients to the ER if they smoke for elective procedures. And that is going to become more and more. We see this a lot with orthopedics. So really helping patients to quit before surgeries and surgical procedures is really important.

We also want to assess, and not forget, about secondhand smoking. We often focus on the tobacco user. But also making sure that even when they do quit, if they are in an environment where other people are smoking, that it's still going to affect their health significantly. And we'll talk more about that. And then there is this piece in the ACC-- and let me-- about e-cigarettes may be a reasonable harm reduction strategy. I'm going to come back to this. Obviously this came out prior to all of what has been happening recently in the news regarding acute lung injury, so I will put this into context. But this is currently in the ACC guidelines.

So I want to kind of approach my talk in a little bit more practical way. And hopefully this will keep it more interesting and kind of give us a practical way to think about how do we approach these patients. So I'm going to offer this case of Mr. I Heart. So he's going to come into the hospital with chest pain, concerning for acute coronary syndrome. So this is a 65-year-old gentleman who's a current tobacco user of two packs per day for the past 30 years, with history of hypertension, COPD, hyperlipidemia, and coronary artery disease. And so we are admitting him with substantial chest pain concerning for acute coronary syndrome.

So I just want to focus on hospitalization. Because this really-- and I think it was mentioned in a previous talk. Right, this is a time when people are really amenable to change, right. We're kind of capitalizing a little bit off of their fear and anxiety of being admitted with something that is very alarming and very catastrophic to them. So it's a real teachable moment. And this is our opportunity to really help put them on the pathway towards cessation.

So first of all, the hospital requires them to be tobacco free. And I think it's our job to make sure that we make them aware of this. And especially at all of the UPMC facilities, patients have to sustain from not just tobacco but also alternative tobacco products, such as e-cigarettes and hookah. It includes e-cigarettes as well. And so we want to make sure that we let them know that being here requires them to be tobacco free.

Many of them who are moderate to heavy tobacco users are going to experience some type of withdrawal or cravings while they're in the hospital. And this is something that I'm going to go over in the talk that we can really address. And then also this is the opportunity to really treat tobacco. And letting them know that it's important to decrease the risk of their complications, it's putting it in context of why they're there. And that it has direct impact on their recovery and the treatment that we're going to provide.

And then, the evidence is very, very strong that if you start treatment while they're in the hospital, it will improve their long term cessation once they're discharged, even if they were not thinking about quitting prior to coming in. So I think one of the things, again, I really, really, really, really want to emphasize that we need to be telling patients-- and also we need to kind get into our minds as well-- and that is treating tobacco use is a part of their medical treatment. It is not a side job of, I'm going to treat your heart disease. I'm going to give you beta blockers. I'm going to give you aspirin to prevent that stent from closing. And I'm not going to address your tobacco.

I mean, it's really like putting out a fire with a leaky hose. We really need to make sure we're addressing the underlying reason for why they have heart disease. And the number one reason is going to be their tobacco use. So part of I think what will help us treat better is this idea that we need to kind of reframe how we think about tobacco use disorder. And that the reality is, I know it seems like sometimes that patients don't want to quit. But the reality is that patients really, really do want to quit.

And this was a survey where 70% of smokers in the US do want to quit. 50% have tried to quit at least once. And 95% who try to quit on their own, unfortunately, have relapse. And about 50% of them who come in are really never, ever offered help by a medical professional. So it's our job to make sure that we are thinking about this, just like we think about blood pressure. You know, when patients come in, we do some lifestyle counseling in terms of you want to lower your sodium. You want to exercise.

But we also will talk about medications, right. We'll put patients on medications. And the goal of blood pressure is we try to keep people in that normal range for as long as possible, longer and longer periods as possible, to help decrease their long term outcome. And it's the same thing with tobacco use. We want to get people to quit. The more often they try to quit, the more likely they're going to be successful. Does anyone know, or ask the panel, how many quit attempts that patients usually have to make before they will achieve success?

So, right, in the ballpark, a little bit higher, about 7 to 9. So the more quit attempts that you can get them to do, the more likely they're going to be successful. That it's actually not a sign of them not being successful. OK. So back to the guidelines, so our goal then is to offer every patient pharmacotherapy and behavioral support in the form of a brief intervention. So this could be a three-minute kind of counseling session by any member of the medical team when they encounter these people to ask patients about their smoking, assess, and then offer help.

So while everybody's job, like I just said, should be to counsel patients who are current, and I would say, recently former tobacco users about their smoking. One of things I want to emphasize is the physician counseling. Because it has been shown to really double quit rate. So when patients try to quit on their own, they quit about 8 to 9%-- have quit rates in the 8% to 9% range. But when a physician talks to a patient about their tobacco use, it can double that quit rate.

And specifically what we want to talk to them about is we want to link their tobacco use to their medical problem, to their-- so in this regard, Mr. I Heart, really having a conversation about how his tobacco use has led to his coronary artery disease. To talk to him about-- well, even though I'm going to take you to cath and put in a stent, let me-- let's talk about how if you continue to use tobacco, that is going to cause that stent to restenosis. Right, we have to tell them directly how it's impacting.

Or I'm going to put you on all this blood pressure medicine, but if we get you to quit smoking, your blood pressure will come down. Your heart rate will come down. So I think we need to start linking better how tobacco use not only affects their underlying condition and their medical-- their medical disease, but also how it will directly impact their recovery and directly impact the treatment that we are trying to achieve.

OK. So we did a study, just to kind of emphasize this point a little bit more, where we looked at the role of hospitalists in counseling and providing support in the form of medication, NRT in this case, to patients in the hospital. And what we found was that when patients are counseled by the hospitalists versus those that are not, they are more likely to receive a nicotine replacement order. And they're more likely to take it once they're in the hospital. So it really does increase the access of these patients to the treatment that they need.

OK. So going back to Mr. I Heart, we want to think about now what our approach is going to be to treating his tobacco. And there's-- I separate this out purposely, because I think it helps give a framework of what you're trying to achieve.

The first thing that we want to do when people come into the hospital, whether or not they're thinking about quitting, we want to focus just on assessing and treating their withdrawal. Because if they haven't had a cigarette in three to four hours coming to the hospital, they are going to start showing signs of withdrawal. And the more they withdraw while they're in the hospital, the more unpleasant they're going to be. And they're going to make the nurse's life miserable. And it's going to-- and they're going to be hard to get them on board with everything else we want them to do.

So we want to address and treat withdrawal, which I'm going to talk about. Then we also, after that, want to then talk to them about, what do you want to do with your tobacco in terms of quitting? And if patients are just not ready to quit yet, the next best strategy is harm reduction. And that is important, too. So we'll talk about those strategies.

So just first, going back to what is happening with regards to tobacco dependence, so just a very quick anatomy lesson, it won't be long. So what happens in the brain, we have these alpha-4 beta-2 nicotine acetylcholine receptors in the prefrontal cortex. And so when nicotine binds to these receptors, it releases a massive amount of dopamine, which is so pleasurable. And that's what tobacco users experience every time they smoke a cigarette.

And then once that starts to die down, those receptors are still there looking for more nicotine. And that sets up this kind of craving, or withdrawal symptoms, of feeling irritable, feeling uncalm, where they want to have another cigarette. And this can occur within two to three hours of their last cigarette. And the symptoms are going to be most severe at about two to three days after that last cigarette. And so if you think about this, this coincides with when they're in the hospital, right. And so they are going to have these significant withdrawal symptoms that we need to be aware of.

So how do we do this? Two very simple questions, because I know everyone's busy when they're on the floors and when they're trying to admit people and seeing a lot of different patients. And so it never feels like there's a lot of time to address this.

But two questions I want you to walk away with. And you can assess very quickly whether or not someone has a moderate to heavy dependence on tobacco and most likely will then require medications to help treat their tobacco use and not just counseling alone. So the first question is, do you have a cigarette within five minutes of waking in the morning? Or do you have more than 10 cigarettes per day, and you smoke within the first 30 minutes of waking?

OK. So then how are we going to address withdrawal symptoms? So the best way to address withdrawal symptoms are going to be using your nicotine replacement therapy, so any of these forms, patch, gum, nasal spray, and nicotine inhalers, which are all available on formulary. This is probably the most effective way to get on-- get on top of withdrawal symptoms within minutes and making patients comfortable within minutes, as opposed to starting the more longer term medication, such as varenicline and Wellbutrin, which we'll talk about in a few minutes.

But this is really the most effective way to do this. So I'm not going to get into all the dosing. But I do want to point out some very important principles around nicotine replacement therapy. So first, they can be used for, again, both addressing withdrawal and addressing cessation. You do want to dose it appropriately. And by that, I mean when a patient comes in and they're a two pack a day smoker, you do not want to put them on a 21-milligram patch. Because it won't work. And they will tell you it doesn't work.

You want to match their nicotine dose that they were getting in their cigarette with what you're going to give them in the NRT. So do not be afraid, if you have a two to three pack a day smoker, to prescribe two 21-milligram patches. It's probably what they're going to require and probably on top of that addition of gum and lozenge for the breakthrough. So this is very different than things like opioids, where if you give people more and more and more, it's dangerous.

People who are used to smoking a certain level of nicotine, once you give them that, there's not going to really be this craving or desire to smoke more or to have more. So don't be afraid to do that. Then you want to instruct patients on proper use, especially when it comes to things like the gum. Because they'll say, well, I tried the gum, and it doesn't work. When they-- when you tell them to use the gum, they don't want to put it in their mouth and chew it just like regular gum. Because then they suck down a whole bunch of nicotine, and it causes nausea and causes hiccups. And they're not going to like it.

What you want them to do is put the gum in their mouth, chew it just for a minute till it becomes peppery, and then park it between their teeth and their cheek. And they'll do the same thing with the lozenge. They don't want to just keep sucking on the lozenge. They just want to do it till it's peppery, put it between the cheek and the gum. And that's where it gets absorbed. And then it'll die down. And then they can reactivate, and it'll die down. They can reactivate it. And then usually they can do this every one to two hours, as they need to to control their cravings.

A few other things, you want to remove the patch for the MRI. The best way to control the morning-- that morning-- those morning cravings and withdrawal symptoms is to use the patch at night. And so most oftentimes if they put it on somewhere between 7:00 or 8:00 at night, it will control-- oh, excuse me-- the craving first thing in the morning. And so they won't have that desire to smoke.

And then I want to talk about this principle of combining medications. Because oftentimes we'll put patients on a patch, and it won't quite be enough. And here's the reason. So if you look at this graph, this shows nicotine plasma levels on the y-axis. And then on the x-axis is time. And if you look at where the cigarette is, when someone smokes a cigarette, they get a rush of nicotine into their system pretty quickly, over minutes. And then it kind of dies down over the next few minutes.

And so the gum, and the nasal spray, and the lozenge all kind of fit that pathway, it'll deliver nicotine very, very quickly into their system, kind of get on top of those cravings. And then, you know, die down over the course of an hour. If you look at the patch, when you put the patch on, it's going to take at least several hours before it even becomes therapeutic.

So if you have a patient at the hospital and you put the patch on at 9:00 AM, then they're going to still have cravings. Because they've woken up, and they have cravings that first five minutes in the morning. And they're going to still have cravings for several hours before that patch really starts to kick in. So give them gum or lozenge in the morning along with the patch, so that until the patch becomes therapeutic, they can at least have something for breakthrough.

Because if we don't address this kind of aggressively in the hospital, this is what we see, right. And we can prevent this. We can really prevent this. All right. So our patient, Mr. I Heart, is going to go to cath. So a couple of principles I wanted to point out around this, the one is NPO. And I say before cath, this is also true for surgical procedures. I can't tell you how many of the nurses have told me that patients will sneak out and get a smoke right before they go down for their procedure or go down for surgery.

So oftentimes they're very good about not eating and not drinking. Because they know NPO means don't eat or drink. But NPO also means don't smoke. And so this is the other reason why we want to make sure that we have something on board to control their cravings so that this doesn't happen before that. Because oftentimes as the physician, you're not going to know about it, unless the nurse catches them and has a chance to tell you. So this is occurring.

If a patient comes in, though, that has been wearing a patch, and they have to go to the cath lab or to a procedure, the patch doesn't have to be removed. And if you do need to manage their symptoms and they're not able to take anything orally, the nasal spray and the inhalers are also very effective to use. So our patient. Mr. Heart, goes to cath, gets his PCA with two stents. So he's doing well. He's been stable. We've got him ready to go.

So now we want to have a conversation with him about his-- what he wants to do with his tobacco once he leaves the hospital. And so he has two options, cessation, or we're going to do this harm reduction. So let's give the first scenario. Let's say he's not quite ready. OK. He's not quite ready to quit. So let's-- I would then say let's do a harm reduction strategy. So if he's been on the NRT in the hospital, he's doing pretty well. It's controlling his cravings and everything. Send him home on the patch and tell him, don't take it off.

I know you're not ready to quit. You have set a quit day. That's fine. We can talk about that later when you come see me as an outpatient. Just keep the patch on, just agree to wear the patch. And if he's-- if he still smokes on it, that's OK. It used to be that the FDA said that you had to remove the patch, and you couldn't smoke on it. That's not true anymore. And patients still believe this. You can smoke on the patch. Part of the reason is because it will decrease the number of cigarettes that you do smoke, so it is effective. So keep-- tell them to keep the patch on.

And then when they're ready, they set a quit date. Then they can substitute in gum or lozenge to control when they would be smoking, they can then start to substitute a cigarette for those-- I mean a gum or lozenge for that cigarette. And then he can have a conversation with his PCP or with you when he is discharged. So send him home with patches, gum, and a referral to the PA quit line, which I'm going to get into their resources in a minute.

And here's the data for this. For patients who-- so this was a study that just looked at about 2,000 patients who were tobacco users who were admitted to the hospital. And what they found was for patients who were not thinking about quitting but were treated with counseling and medication in the hospital, they were more likely to continue using it within the two weeks once they were discharged. And that was despite their willingness to want to quit. And of course, if they were using something prior to the hospital, as you can see, their rates of use was much higher in those two weeks once they were discharged.

OK. So scenario two is, he is ready. So he's been in the hospital three days. He's doing well on his NRT. He's been thinking about quitting because of his scary episode with his heart. So he would like to discuss options for quitting smoking. So let me ask the panel before I go to the next slide, what are some of his options for quitting the smoking?

AUDIENCE: Nicotine replacement gene [INAUDIBLE]?

ESA DAVIS:

Yes. Thank you. So here we go. And here's why. All right. So nicotine replacement therapy, again, it's both good for short and long term, so treating withdrawal and also for long term cessation. The reason is because it acts just like what happens in a cigarette. Nicotine binds to those receptors, releases an enormous amount of dopamine, and it's very effective for cravings.

Bupropion and varenicline are your two long-term cessation medications. They're really not great in the short term because they take at least one to two weeks to become therapeutic. So they could be started in the hospital. But they're not going to necessarily be therapeutic until they're-- for at least one to two weeks, because it takes time to titrate up these medications. So it's nice to kind of start this before someone sets a quit date. They should set a quit date and work towards that.

So bupropion we use. It's a norepinephrine re-uptake inhibitor. It's an antidepressant. The way we think that it works for smoking is that it prevents the uptake of dopamine from the synaptic cleft. So what it basically does is make people kind of ambivalent to smoking, and they don't get the same kind of feedback from the dopamine that they would normally.

And then varenicline is more of a partial agonist, nicotine agonist. So it binds to the receptors. But it doesn't release as-- it releases a little bit of dopamine but not to the levels that nicotine does. And so it's thought to not set up this kind of addiction feedback loop like nicotine does. And so it really helps for-- it's probably-- it is the most efficacious right now of what we have for long-term cessation. And what I mean by long-term is you really want to treat these people for at least 12 weeks.

And then any of these things can be combined. And oftentimes first line is you want to start them on nicotine replacement therapy. And then go ahead and start either varenicline or bupropion until it becomes therapeutic. And then you can wean them off the nicotine replacement.

All right. So just a pointer about the Wellbutrin, this one is nice, too, because a lot of patients will tell you they don't want to quit smoking because they don't want to gain weight. And so this medication is really nice to help prevent that side effect. It reduces appetite and the weight gain that you usually see with smoking cessation. The one caution is you don't want to use it in a patient that have known seizure disorders or significant head trauma, and then someone who has a known eating disorder.

For varenicline, again, this is really good, the most efficacious for long-term cessation. The thing that people will complain about with varenicline is going to be the vivid dreams or the nightmares. This is thought to be dose related. So usually if you just back down on the dose, that will go away. And then again, you don't want to use varenicline in patients that have active suicidality.

So it can be used in patients who have a mental health disorder, as long as it is stable. That was a black box warning that has been removed. And mostly because of the results of the Eagles trial, which showed that there were no difference in the psychiatric group and groups that had a non-psychiatric group in terms of that outcome. So if someone's actively suicidal, you don't want to use it. But if someone has any other major mental health disorder, but it's controlled, it can be used, and then, again, in patients who have known seizure history.

So want to just take a moment to talk about the [INAUDIBLE] trial. Hopefully you all are familiar with this trial. So this was a trial done in the highest risk cardiac patients. So these patients all had present to the hospital with ACS. 58%-- it was a cohort of about 300 patients who were randomized to varenicline versus placebo. The 58% of the patients had ST segment elevation. 38% had unstable angina presentation. So after they were revascularized and stable within 24 hours, they were started on varenicline and treated for the 12 weeks.

And then when they looked at 24 weeks, there was a higher rate of cessation in the patients who had varenicline, the 47% versus 33%. But there was no difference in their cardiovascular adverse events between each group. And so when they have-- they've now come out with the one year data on this. And even at one year, the varenicline group still had a higher rate of abstinence than the placebo group. And if you look at the chart C, which is for those patients who weren't able to actually achieve cessation but were able to reduce their smoking by 50%, that occurred higher in the varenicline group compared to the placebo group.

OK. So I know this is probably one of the biggest questions that you all probably get now. Can I use e-cigarettes to quit smoking? My friend let me try one, said it was helpful for him to quit. What do you think, doctor? What do you think, doctor?

[LAUGHTER]

AUDIENCE: I would guess that it's, for the e-cigarettes, potentially a reasonable alternative where it's maybe less damaging than [INAUDIBLE].

ESA DAVIS: Interesting. Anyone else?

AUDIENCE: Right now the data that we're seeing, the newer data, I am thinking would probably point against it, because of the acute lung injury [INAUDIBLE] we're seeing. So we haven't really hashed out enough on this to say it's safe.

ESA DAVIS: Correct. So actually, you both are correct. So we're going to go through this. So first of all, when we're talking about e-cigarettes, for the sake of this group, we're talking about adult cigarette use. I think we can all agree when it comes to children and young adults, we're not talking about them for the sake of this talk.

So in this talk, we're talking about adult cigarette users, who are-- do tend to be moderate to heavy tobacco users. And these are the people that are using it to quit or to reduce their smoking. They tend to use them in tobacco free environments. And they tend to use actually both. And this is part of the problem. They are-- they continue using combustible tobacco and e-cigarettes. So there's this dual use problem.

So before the brouhaha on the news, which I'm going to get to in a minute, this is just summarizing the evidence to date of e-cigarettes, and I'm mostly talking about those that contain nicotine. A lot of these studies were done in the UK where e-cigarette is much more prevalent than in the United States. And so from these small kind of observational trials and limited RCTs, this is what the data has told us. That they appear to be less harmful than combustible tobacco cigarettes, because they decreased the number of cigarettes that are used, or they do-- they do show some evidence in controlling cravings and withdrawals.

Most of the randomized controlled trials show that the benefit, though, is still-- is similar to what we would achieve with NRT. And most of the trials have been putting the e-cigarette up against the nicotine patch. However, there's been a lot of research coming out though that smokers who use e-cigarettes are less likely to quit tobacco, so there's co-use. And if they are on e-cigarettes, they are less likely to stop the e-cigarette use long-term.

We don't have any trials that have come out in the United States yet. The FDA has just begun to regulate these as of 2016. So I think we will start to maybe see some robust randomized controlled trials to really establish the safety and efficacy of using an e-cigarette as a quit aid. But that is not done to date. And so the current evidence is very weak and conflicting.

But then this happened, right. So over the past few months, we're seeing this outbreak of lung injury associated with e-cigarettes. So as of October 15, there have been 1,400 cases of lung injury across the 49 states. 80% of them are occurring in individuals less than 35 years of age. There have been 33 confirmed deaths. Most of the patients who have-- that they have looked at have reported e-cigarette use or vaping. And most of the samples have contained THC.

And then the products that have been implicated for these cases have been what they called from informal sources. So sources that are unauthorized dealers, from a family member, from a dealer off the street, as opposed to like a manufacturer, you know, getting it from a manufacturer. And then still the specific cause of a lung injury has still not yet been determined.

So this is the current consensus. So the CDC is recommending that we refrain from all use of e-cigarette products right now, until they get a handle on what is really happening. These products are still not FDA approved as a quit aid, and largely because e-cigarettes-- there are so many of them on the market. But they contain chemicals, the diacetyl, the propylene glycol. These are the chemicals that help to vaporize the nicotine within the e-cigarettes, so that it can be delivered.

They also contain heavy metals, such as lead, nickel, and cadmium, and then ultra-fine particulates. All of these have been linked to the lung injury that we've seen, the popcorn lung and some cases of cancer. So not for teens, young adults, pregnant women. And then I'd want to get back to, though, the point about using it is a harm reduction. So like I said, the ACC does currently have that in their guidelines.

And so the thought is, once you tell people about all these risks, and you have a conversation, you let them know that this is the case, and they still want to use it. Then you say, OK, then you need to switch entirely to the e-cigarette, not to do the co-use. Switch entirely to e-cigarettes, and then the goal should be to get off the e-cigarette in the long term, because we do not know what those risks are. And that is what the ACC and the American Cancer Society guidelines will say when you read them. But again, this is probably tempered based on the new data that has come out since then.

And does anyone know what this? This our next thing that we have to worry about. Does everyone see this, IQOS? OK. So this is our-- this is the new hotness. So IQOS, which stands for I Quit Ordinary Smoking, is a new Philip Morris product, soon to be on markets in a store near you. It's been-- FDA permits the sale of this now as an alternative to tobacco.

It is a-- so it's not a e-cigarette. But what this is in those little sticks, or in those little sticks, are tobacco sticks. So people would put a tobacco stick in there. And then they put it in this battery pack. And this warms the tobacco. So it doesn't raise it to the level where it combusts. But it just raises it a few degrees to warm it into a vapor. And then they can smoke that.

So they get kind of the same pleasurable effects of smoking, but with the, quote unquote, less risk or less harm, although they have to prove that to the FDA. So this is going to be the new alternative to smoking. But this, like I said, is unlike an e-cigarette, which contains nicotine or flavoring. This is tobacco. So they are getting the effects of tobacco, but it's just not combust. It's warmed.

OK. So finally, Mr. I Heart goes home. So we're going to discharge him with a script for varenicline or bupropion to start, along with the nicotine patch and gum. And then refer him to the quit line, and then he can follow up with his PCP or with you within two weeks to see how he's doing. And so in the remainder minute or two that I have, I just want to talk about the resources that we have that we can-- to help.

So at Presby [INAUDIBLE], if you're in [INAUDIBLE], we have a UPMC tobacco treatment service. And so what we do is we provide inpatient consults to the clinicals team. And we have all of the electronic infrastructure in place through Cerner, so we can be consulted just like any other team. And we come to the bedside. And we provide high intensity counseling. And we will also help with medication management for patients while they're in house, and then also connect them to resources for when they're discharged to help continue to support them.

We also have an outpatient pre-surgical telehealth program for the orthopedic service line right now. And then we're moving into the Hillman cancer space to help with oncology and surgical oncology, again, prior to getting patients to quit prior to treat-- to treatment. And I want to talk to you about the 1 800 Quit Now. So this is, how many of you refer to them?

So I would strongly recommend doing this, and even doing this by a more-- instead of giving patients the number, actually do a fax referral to them for the patient. And they will reach out to talk to the patient. But here are some new things that changed in the PA Quit Line. So before it used to be four weeks of NRT that they would provide free of charge to patients. Now they are giving up to eight weeks. And they used to not give combination therapy, patch plus gum, or patch plus lozenges. Now they will give combination therapy.

So this is great for eight weeks, two months, worth of NRT that they'll send directly to the house. And I say do the fax referral, because on that form, it does require that you initial that the patient is able to receive it. And then they will send it. They will send it directly to the patient's house. For new medical assistant enrollees, they are now offering three months of varenicline, which is really nice. I know this is the harder one to get some insurances to cover. So for those newly medically enrolled in the medical assistance program, this is a nice way to get them free varenicline.

And then for the pregnant patients, they will do-- they get nine calls, five during pregnancy, four postpartum. But they have increased their dollar amount from \$5 per call to \$10, And then \$10 to \$15. So they will pay these women for completing these counseling sessions, which is really nice as an incentive to get them to quit.

And then finally, don't forget our insurance plans, UPMC Health Plan, has a bunch of tobacco cessation programs and health coaches that will help to continue to counsel patients, as well as the Highmark and other-- the other insurance have pretty robust cessation coaches. And then these are just other resources that have really nice guidelines, and pamphlets, and all kinds of materials on smoking and on e-cigarettes for our patients. And with that, I think I'm out of time. I want to acknowledge all the people that make the tobacco treatment service possible. And thank you.

[APPLAUSE]