

Where do new medications fit within a healthy weight loss plan?

Transcript

[Upbeat theme music plays]

Dr. Clancy

Welcome to Rounding@IOWA, a continuing medical education podcast developed by and for healthcare teams. I'm your host, Dr. Gerry Clancy, Professor of Psychiatry and Emergency Medicine and Senior Associate Dean for External Affairs here at the University of Iowa's Carver College of Medicine. Today we will discuss the new age weight loss medications and how they fit into a more comprehensive and healthy weight loss plan. Our objectives include, first, we hope our listeners can recognize the gravity of obesity in the United States and the complications associated with obesity. Second, we want our participants to integrate new weight loss medication options into the treatment plan for a patient desiring to lose weight. And third, we hope our listeners are equipped to provide their patients with a comprehensive, long-term, and sustainable weight loss treatment plan. Our expert guests today are Dr. Billie Jo Myers and Dr. Katherine White. Billie Jo Myers is a 2003 graduate of the University of Iowa College of Pharmacy. She joined the Iowa City VA in 2008, working in the outpatient pharmacy. During her outpatient career, she served on several important committees, including the Take Back Work Group, the Controlled Substance Crew, and the Opioid Sentinel Group. She is the pharmacy representative for the Disruptive Behavior Committee and is also an instructor for the Iowa City HCS MOVE! program, a comprehensive weight loss program. She joined the Clinical Pharmacy Specialist Group in July 2018. Her primary focus is anticoagulation and medication management. Prior to joining the Iowa City VA Healthcare System, Dr. Myers worked at several Hy-Vee pharmacies in the Iowa City and Coralville area. She has been working with pharmacy students throughout her career and enjoys being a preceptor for students and residents. Dr. Katherine White is a Clinical Associate Professor of Internal Medicine in the General Internal Medicine Division. She directs a weight-loss clinic and is the director of outpatient internal medicine clerkship. She earned her medical degree from the Indiana University School of Medicine and a master's in medical education from the University of Iowa. She completed residency in internal medicine at the University of Wisconsin Hospitals and Clinics, where she was also chief resident. Her research interests include

weight management, counseling education for medical students, and alcohol use screening in primary care. Dr. White and Dr. Myers, welcome to Rounding@IOWA.

Dr. Myers

Thank you so much for having us.

Dr. White

Thank you.

Dr. Clancy

Dr. Myers and Dr. White, thank you for joining us and thank you for doing the work that you do. I just provided our listeners with your official titles and a summary of your training. Could you give us a better idea of your daily efforts and what a week might look like for you? And let's start with Billie Jo.

Dr. Myers

A typical work week for me is varied variety as at the VA, I work primarily, like I said, in anticoagulation and medication management, and then I also staff the white team, which is a primary care team. And during that, we assist with smoking cessation and titration of weight loss medications. Sporadically throughout there, I do assist with providers as far as ordering different weight loss medications and titrating those medications for patients.

Dr. Clancy

Great. Lots of hands-on work with patients, working on the team, working with residents and students all the time. Great. Dr. White, how about you? What's a week look like?

Dr. White

I spend about half of my time doing primary care at the River Landing Clinic for the university, where I'm working with residents and students. And then I also work at the VA, also in the White Team Clinic, supervising residents, providing primary care to veterans. I do spend a few half days a month doing weight management specifically. I got my start in the MOVE! clinic at the VA, but have since started working at the weight management clinic at the university.

Dr. Clancy

Great. Well, you both are regularly involved in weight management. So let's start with some of the basic facts around obesity. How would you define obesity?

Dr. White

So the main way that we define obesity is based on the BMI, or body mass index, which is just to start off. I think it's important to be mindful that that's a really historically problematic measurement or definition of obesity, because it was really never intended to help us make a connection between somebody's body size and their health. But the way that we calculate the BMI is the weight in kilograms over the height in meters squared. So when you calculate that out, you'll likely get a number somewhere between 18 and 50. We define a normal body weight as somewhere between 18 and 25. We define overweight as between 25 and 30. And then we define obesity as over a BMI of 30. And then we think about severe obesity as being a BMI over 40.

Dr. Clancy

Great. And how are we doing as a country? What are the trends in the US regarding obesity rates?

Dr. White

We have a couple different ways that these have been tracked historically. There have been efforts to try to do some self-reported data based on phone surveys that were largely inaccurate, as you might imagine, because people are going to variably report or have that information about themselves to report on the phone. The most accurate data we probably have is through the NHANES survey data that's used for a lot of different things in healthcare. And over the past 30 years since the late 80s, the prevalence of obesity based on the NHANES data has gone from somewhere around 22% up to somewhere around 42% as of 2018. So that is typically seen as an indication that rates of obesity have significantly increased over the last 30 years for adults.

Dr. Clancy

Sure. Anything different coming out of the pandemic or going through the pandemic that you saw with obesity? I saw, at least from my vantage point, quite variable response for some of our patients we took care of.

Dr. White

Yeah, I think I imagine that there are people who are crunching those numbers in a research setting right now. But my experience in primary care has been, and I've seen it supported in the literature that we've seen thus far about the pandemic, is that many people's weight went up during the course of the pandemic because of a number of factors, including mental health stress, change in job responsibilities, caregiver responsibilities, change in physical activity, specifically during those lockdown periods early in the pandemic. But I

think the general sense is that there is going to be an impact on the prevalence of obesity and it probably is still getting sorted out.

Dr. Clancy

Sure, and we're already seeing increases in heart-related diseases as well, coming out of the pandemic as well. It's more than COVID from this pandemic. Let's review the complications of obesity. What are coexisting medical conditions and what are some of the estimates and predictions as far as impact on life expectancy?

Dr. White

I think the list of ways that obesity can impact your health is very long and affects essentially every tissue in your body, as well as your mental health. So we do see associated conditions with obesity, like the ones we commonly think of, like type 2 diabetes, high blood pressure, osteoarthritis. And then there are others that maybe aren't such an obvious connection, like reflux. And the impact on mortality for obesity is a sort of complicated relationship. And I think that's one of the indicators that BMI or the way that we define obesity probably isn't as accurate as we want it to be in giving us a sense for how extra adipose tissue on our body impacts our health. Because we do see a classic J-shaped curve when it comes to BMI as it relates to mortality. Because we see mortality go up with low BMIs, you know, when somebody is, what we'd say is underweight, then we tend to see an increase in mortality. And then the mortality really starts to increase as BMIs get above 30 to 35. But there's not necessarily a direct, you know if your BMI is 32, there's not a great way to assess the impact of that on your mortality. But we do know that the higher BMIs tend to be associated with higher mortality, but that relationship is probably a lot more complex than we can currently understand.

Dr. Clancy

Sure. There's a lot of pressure on Americans as far as what to eat and how to eat. What are the contributors to obesity in the US and why is weight loss to a healthy state oftentimes very difficult for some?

Dr. White

I think one of the things that we know about obesity is that, again, it's very complicated. We've had a sort of culturally simplified assessment of weight and that we think about it as being purely related to what somebody's eating or doing and completely in the control of the person, the individual person. But I think what we are hopefully starting to get a little bit more understanding of is there's a significant genetic components to obesity. There's numerous genes in the genetic code that impact somebody's body size and how much

adipose tissue they have. So there are things that we inherit from our family, and then there are environmental factors, like how much physical activity we get in during the day, the components of our diet, and we are increasingly recognizing how much processed food impacts the diet of what the macronutrient components are of the diet. The increased processing likely has an impact on how that food contributes to adipose tissue formation. We know that other inflammatory drivers of inflammation can impact our body composition. Mental stress and mental health impact our body composition. So there are a lot of different things that play into it. And that both makes it complicated for the individual who is trying to manage their weight, and it also really makes it complicated on a societal level as we're trying to think about, okay, you know, what can we sort of do from a policy standpoint that can help with promoting health and promoting healthier outcomes for patients with obesity? The interventions need to be very complex. We can't have simple interventions for what is clearly a very complex problem. So that, I think, creates some difficulty when you're trying to create both policy and individual approaches to obesity. It's really just not as straightforward as we want it to be.

Dr. Myers

And then just to add a little bit more to that, from the pharmacy perspective, there are numerous medications out there that can actually also attribute and contribute to the obesity. A lot of the psychiatric medications actually cause weight gain just by taking them. And so that does contribute to these patients that are trying to treat that mental health issue that they're dealing with, then they're having the side effect of weight gain from the medications themselves. Or like in diabetes with insulin use or some of the other therapies, those medications can actually also contribute to that adipose tissue distribution and cause increases in weight gain. So these patients that are trying to treat their chronic illnesses are having more weight gain just from the treatments themselves, which can exacerbate the problem.

Dr. Clancy

Sure, And then we have unfortunately moved to a time when some of the highest calorie foods are the cheapest foods as well. And when I worked with a orientation part of medical school, we put the students through a week's worth of being on SNAP benefits. And how could you feed a family with what you got as far as just really not very much money a day, \$10 a day kind of scenario. And oftentimes those students would go toward the fast food as the most filling way that they could feed themselves. It was unfortunate that we're at a time like that, the high calorie foods could be the cheapest foods as well. If you watch TV at all or are listening to podcasts, weight loss can be big, big business with all sorts of solutions marketed to our patients. And a big one right now are the cognitive behavioral strategies.

From your experiences, what are really the best models as far as cognitive behavior around weight loss?

Dr. White

We have some evidence that supports food logging or calorie counting as a good behavioral method for helping people lose weight. And examples of that would be in the community would be things like Weight Watchers. Their approach is to essentially gamify calorie counting, assigning points instead of calories and helping people think about the food choices they're making and the portion sizes to help them stay within a calorie limit that may promote some weight loss. We don't have a lot of great sort of multifaceted weight management approaches that are generally available to the general population. The VA Veterans Administration has the MOVE! program, which has an interprofessional approach to weight management, which is very effective, has excellent outcomes. And so our veterans have access to a really high quality behavioral weight management intervention. For people who don't have VA benefits, they can use commercial things like Weight Watchers, like I mentioned. There's getting to be more and more app-based interventions, things like Noom, which is a, you know, comes from more of a behavioral health, sort of trying to use some goal setting in addition to calorie counting. And then you'll see other approaches that have some evidence behind them, like intermittent fasting or time-restricted feeding, which has recently had a few studies published that show that can be also a very effective way to help promote weight loss. And so this is an approach where you have specific times of the day where you can eat and specific times of the day where you're fasting, typically eating for an eight-hour window, so maybe from 12 p.m. to 8 p.m., and then fasting from 8 p.m. till noon the next day. And so these are various approaches that help people organize their eating, all of which have some scientific evidence for benefit. But a lot of these really need a lot of support. It can be difficult to learn how to do these things properly and safely, and then also to stick with them, because we know that humans need a lot of support to make big changes to their behavior. And that's something that we, in primary care, we don't have a lot of great resources for supporting people, outside of the veteran system with the MOVE! program. But in my primary care practice, people tend to, some people have insurance through their job that wants to promote behavior change and healthy living. So maybe they have some support for that. But most people have to do it on their own with their own resources.

Dr. Myers

I think you'll find that these people that are trying that, the ones that do tend to succeed are the ones that are reaching out to things like she said, the Noom or other groups where

they're working together and having support of other people in the environment or in their communities, and they're the ones that succeed the most.

Dr. Clancy

Sure, yes. So on the other end of the spectrum, surgical interventions for weight loss have been around for a long time as well. When do we consider surgery? When is that now comes to the top of the list as far as what we should do for this or recommend for a patient?

Dr. White

Yeah, so there's multiple metabolic surgery techniques, the sort of standard being the Roux-en-Y gastric bypass, where they make a small stomach pouch and then bypass multiple feet of small intestine so that food tends to not be absorbed as well. And it kind of skips a lot of the small intestine to go to a more distal part of the intestines to then finish digestion. So you lose out on some of those calories, but also some of the nutrients, obviously. And then the gastric sleeve is the one that has been more commonly done recently, which doesn't reroute food through the gut, but basically creates a small stomach pouch by taking out part of the stomach so that you just are very limited in portions. We also know that both of those surgeries have neurohormonal impact on patients in addition to just controlling their portions. So both of those surgeries have impact on the various hormones that control hunger, the various hormones that control satiety after you eat, and blood sugar after you eat. So they're really complicated surgeries. They're not strictly weight loss surgeries. They have significant metabolic impact. Those surgeries tend to be recommended and are appropriate for people who have a BMI over 35 with weight-related health problems. So things like diabetes, obstructive sleep apnea, osteoarthritis, or people who have BMIs over 40, even if they are otherwise healthy. Those are the patients that tend to get referred for bariatric surgery. We know that patients with diabetes, with BMIs over 40, tend to benefit significantly from this type of surgery, and it can sometimes put their diabetes into remission just with surgery alone. The other thing to remember about bariatric surgery is it's not as if you roll off the table and go back to your life the way it was and just lose weight. It requires a significant lifestyle change. that takes months to prepare for the surgery itself. And then you spend the rest of your life following a very restrictive diet and taking multiple supplements to make sure you don't get deficient in the vitamins that you don't absorb. So it's a really big change to your life, but for some people it is life-saving surgery who have significant consequences of their obesity.

Dr. Clancy

Yeah, we've had medications for weight loss for a long time as well. And before we talk of the newer medications that we have available to us for weight loss, let's review some of the older medications for weight loss and their success rates and some of their complications.

Dr. Myers

Yes, I can sure help you with that one. Phentermine is probably the oldest one out there. It's a stimulant, so it helps to suppress the appetite. It's not intended for long-term use. It's usually just for a short few months. And a lot of people experience some side effects with it, like increased blood pressure or palpitations, insomnia. So that's usually why they limit the use. Orlistat's another one of the oral medications that's available. This one you can even sometimes get over the counter as a product called Ally. It tends to limit or inhibit the absorption of the gastric fats in your body. The negative thing with this one is the side effects. You will find that there's a lot of significant diarrhea and flatulence and uncomfortableness with this medication. And typically there's not a lot of weight loss with it, you know, sometimes between 2-3 kilograms over the course of treatment. There are two other oral medications that have been used and are having more success. One called Contrave is a combination of naltrexone and bupropion. This one, it's kind of an unusual medication. They really don't know what the exact mechanism of action is as to why it causes some weight loss. It does have a tendency to act at some of the hormones that can maybe decrease food wanting or to increase satiety. It sometimes success rate is about 5 kilograms for some patients, but I have seen some that have lost a significant amount of weight with the use of this medication. So again, you'll find these are all very individualized therapies with different results. Insomnia can be another side effect of this one, along with headache and increased blood pressure. So that sometimes is one of the reasons that they are stopped. The oral medication with the most success is called Qsymia. It's that combination of topiramate and phentermine. So that phentermine that we talked about earlier, they just added the topiramate along with it. It has that, again, stimulant effect from the phentermine. And then the topiramate, they're unclear as to what its action is. Possibly for some, it might act at some of the receptors to decrease appetite or to suppress the appetite along with that phentermine. We do see success rate with this one, sometimes close to 10 kilograms over the course of treatment, but there is that risk of dry mouth, constipation, headache, and heart rate. The oral medications have a tendency of acting for about nine months. You'll usually see kind of a plateau or a stop, no longer losing any weight after about 9 months. So your typical therapy treatment is 9 months. But those are the oral medications that are available in the United States at this point in time.

Dr. Clancy

That's a great review. And I imagine some of these still leave open at least more room for research and at least are pathways as far as weight loss and weight gain that may be more explored. I know bupropion is structurally very similar to amphetamine, so it is activating. And Naltrexone is very much involved in the reward system. So would you imagine that these are at least avenues for additional research and testing?

Dr. Myers

Yeah, there are multiple other medications down the road that are trying to act at these different receptors to see if they can have better benefits in an oral method.

Dr. Clancy

Great, great. So let's turn to the newer age medications as I refer to them right now for weight loss. And here I'm referring to semaglutide, or Wegovy and Ozempic or Tirzepatide or Mounjaro. What's different about these medications at that molecular level? Because they're not particularly simple as far as what they do.

Dr. Myers

No, these medications, they act at the receptors in the two different areas. They're in the stomach lining and the colon lining, and they are, they're incretin hormones, so they have a tendency to act at several different areas. The Wegovy, which is the semaglutide, or the Ozempic, it is a strict, they call it GLP-1 agonist, and that stands for glucagon-like peptide agonist, and this is going to have two different actions. It can act in the ileocolonic cells and have a tendency to increase insulin sensitivity, insulin secretion, sometimes triglyceride clearance, which is going to help to improve hyperlipidemia. But then they act at these other areas to delay gastric emptying, which is going to allow you to feel fuller faster, so you have a tendency of taking in excess food or more food which is going to decrease your calorie intake as well. Now the difference between the Ozempic, or the semaglutide and the tirzepatide, at this point in time tirzepatide has not been approved yet for weight loss. It's still in the works. It has been approved for diabetes treatment only. They're predicting maybe by the end of the year they'll have that FDA approval for weight loss for this one. The tirzepatide is also a GLP-1 agonist, but then it actually also acts at the GIP, or the glucose-dependent insulin tropic polypeptide receptor, which does a lot of the same things that I talked about earlier. It increases insulin sensitivity, insulin secretion, and then also glucagon secretion is decreased, and it decreases the gastric emptying. So the tirzepatide has a tendency to have a better action because it works at two different receptors in the GI tract compared to the Wegovy.

Dr. Clancy

That was a great answer. And it certainly stirred up my memories of first year biochemistry and first year physiology as well.

[laughter]

So very good. That balance between glucagon and insulin is so important. But they really are different than what we've seen before.

Dr. Myers

Yes.

Dr. Clancy

When looking kind of at their benefits, what do the stats say as far as weight loss, but also the associated complications of obesity?

Dr. Myers

You're finding with these medications, there's a significant weight loss, anywhere from about 15 to 20% with the Wegovy, and then they're seeing even higher, above 21 to 22% with the Mounjaro or their tirzepatide. Again, they're acting at that level to decrease the triglycerides. So they're also not only decreasing the weight, they're going to help improve the diabetes control along with the lipid levels as well in the body. So as a roundabout action, they're all working together to increase health and improve health.

Dr. Clancy

So of course, we're losing weight, we're better controlling blood sugars, but also the cardiac risks as far as lipids are much improved as well.

Dr. Myers

Exactly, And these medications have actually shown improvement to reduce cardiac risks. And so anyone with diabetes and cardiac history, they are showing to have a benefit of reducing that cardiac risk down the road.

Dr. Clancy

Great. And I've seen dramatic reports on some of the side effects. You both are in the trenches working with these medications. What do you see as far as the common side effects and how often are the side effects severe?

Dr. Myers

I can kind of tell you what to expect, and then Dr. White can tell you what she's seen. Nausea and vomiting are two of the big potential side effects. We have patients that have had constipation. We've had some that have had diarrhea. So it's very individualized. It would be great to have a study to know exactly which individuals will experience which side effects because it's so variable down the road. Then there's the higher risk possibilities of pancreatitis or gastroparesis, that paralysis of the stomach or the slowing down of the stomach emptying. And then the progression of retinopathy. Those are the highlights of what is kind of predicted or contraindicated. And I'd love to hear what Dr. White is seeing in her clinics.

Dr. White

I think 100% agree that those are the most common things that I see. And I always tell people that the top five side effects to worry about are all nausea, because that is the thing that we see the most commonly is they'll just feel like this sort of constant feeling of being sort of full, nauseated, not feeling good all throughout the day. Some people don't notice anything like that and just notice the appetite suppression and feel fine otherwise. But I agree, I have seen basically every GI side effect you can think of from these medications. So I really try to tell people that it's not just the nausea and not just diarrhea, but constipation is also something we should be watching for.

Dr. Myers

I have also seen and have talked with patients that if they have a tendency of making their meals smaller, then the nausea seems to be less of an impact. And so it seems like it's more, the more they eat, the more chances they are they're going to have that nausea. So sometimes that's one of the perks that you can kind of relate to people to help to prevent some of those side effects.

Dr. Clancy

Great, great. So let's kind of go to the fringe at least as far as benefits. How dramatic have you seen some improvements? How fast does it happen? How much does someone's, frankly, their life turn around for some of these patients that this medication is really the right thing for them?

Dr. Myers

I have witnessed both ends of the spectrum. I've had some patients that have been on the medication for 16 weeks or even six months and have not seen any weight loss at all. But then I've had a patient, at least one for sure, that has lost almost 100 pounds over the

progression of a year of being on the medication and is doing quite well. So it's, again, I've seen variability, but a lot of the patients will have a tendency of losing anywhere from 30 to 40 pounds or more over six months to a year.

Dr. White

Another thing that I hear people say with these medications are that, because we don't, as I mentioned before, we have a very elementary understanding of why some people struggle with their weight and some people don't. But there's definitely a class or a sort of a category of people with obesity who really struggle with their appetite. And their appetite is what really drives them to eat consistently throughout the day. And they'll tell you that they never feel full. They'll tell you that they'll eat a meal and still feel hungry. And I've talked with people that these medications specifically have taken that away, that hunger, that drive to continue eating. And so there's something, I think, neurohormonally happening for at least a subcategory of people on these medications that it really impacts their appetite specifically. And that group of people may be a sign that we could do some different things with these medications or help researchers sort of target what is it about these medications for these specific people and why does it work so well?

Dr. Clancy

And are they able to maintain? Are they, with the weight loss, are they able to, keep at that weight that they want to, whereas before, those diets, they've been up and down with trying to do just the behavioral, cognitive behavioral methods? Has it been helpful for them as far as longer term?

Dr. Myers

One thing I will say with these medications, as compared to the oral ones that we had talked about earlier, is the studies are showing that they will continue to receive benefit from the medication up to about 30 months, which is about, is close to three years. So if they're on the medication, they will continue to see weight loss over that period of time. So that's a much longer period of being able to lose weight as long as they're taking the medication.

Dr. White

And from a primary care standpoint, I think one of the challenges we have is access to the medications. I have personally not seen too many people who have been on these medications for a significant amount of time for a weight loss indication or even for a diabetes indication because semaglutide was not the first GLP-1 we used for diabetes. It's only one of the more recent ones. And so we used other medications from this class, which

tended to promote some weight loss, but not nearly to the extent that semaglutide does. So I think our clinical experience is lagging behind the research experience in terms of what we're actually going to see in practice with how long people stay on these medications, either from a financial or a tolerability standpoint, and then how much they end up being able to lose, because we know there's a lot of physiologic things that happen to your body as soon as you start losing weight that try to put that weight right back on. And so in a research setting, you may be able to have a more standardized approach to how these medications are used that might yield some weight losses that aren't necessarily going to happen in the real world. But I don't know that we have a good sense because the pandemic also, you know, put a three-year wrench into our course since semaglutide hit the market. So we have all these other variables at play as well when we look at our primary care population using semaglutide for weight loss.

Dr. Clancy

Sure. And if someone is on it for a while and they've not been able to tolerate it for the long haul, what happens when they, let's say they've gotten some positive results, but they just say, I can't take it anymore. I'm feeling sick all the time. What happens when they stop?

Dr. Myers

Typically with these medications, both Wegovy and, or I'm sorry, semaglutide and tirzepatide have done actual studies and they found that when you stop the medication, you have a tendency to regain the weight. There have even been some reports where they've regained more weight than they started with prior to the medications. So it's very important that you remain on these medications. Obesity, unfortunately, is a chronic disease state. And so once you start a medication, you're on it chronically if you can tolerate it.

Dr. Clancy

So for some individuals, this may be for the rest of their life.

Dr. Myers

Yes.

Dr. Clancy

Yeah. Great. I understand.

Dr. Myers

And I counsel patients that way. You should be prepared for that.

Dr. Clancy

Yeah. And Dr. White, you alluded to this. How much does it cost if you have to go out on your own? And how often does insurance seem to cover it?

Dr. White

So the out-of-pocket cost for this medication for semaglutide for a month's supply is going to be somewhere in the neighborhood of \$1,000 to \$1,100 a month. And that typically includes very little, if any, in the way of insurance cost sharing. We do have some improvement, especially in the state of Iowa, with some of the State of Iowa, a few of the universities, and a few of the larger employers have started to add these medications to their formulary, but many insurance companies and employment-based insurers are not covering any weight management medication. So even the oral medications that Billie Jo was talking about are frequently not covered, and especially these very expensive ones. So a lot of people who are using specifically, you know, Wegovy, the weight management formulation of semaglutide, are paying for that out of pocket, if they're going to use it.

Dr. Clancy

We've certainly seen use of this medication beyond kind of a traditional protocol. And there's stories of rapid weight loss among those in the entertainment businesses. With your expertise, who really are the top of the list for these medications? Who are they really intended for?

Dr. Myers

These medications are intended for those who are categorized as obese. So if we're using that BMI status, we would say if you had a BMI of 27 with a comorbid condition like sleep apnea or diabetes or cardiovascular disease, these are the population that's intended, or a healthy individual with a BMI over 30, that would be the group that would be the intentions for this medication, those that actually would benefit health-wise of a weight reduction.

Dr. Clancy

Great, great. So let's kind of come full circle and start talking about what a comprehensive model weight loss program would look like. You guys are the designers. You get to go national with your best practice. What's it look like?

Dr. White

Well, Billie Jo and I have both had the opportunity to work with the MOVE! program at the VA, which is probably the best example we have of this in medicine currently. And, you know, if you're designing an ideal, you know, weight management environment, it's going to

prioritize people who would have the most impact on their health outcomes with intensive weight management. So you would be specifically targeting people who have health-related or weight-related comorbidities, like your diabetes or your sleep apnea. It would be very interprofessional. You'd have physicians or other providers involved. You'd have nursing staff with expertise in helping patients, like supporting their, sort of biopsychosocial process. You'd have PharmDs like Billie Jo, who are amazing experts in helping people titrate their medications, manage their side effects, and think about drug interactions, because a lot of our patients who are working on weight loss have other comorbidities that require medications, and so there's inevitably going to be interactions there. You would have a behavioral health professional to support because there is a lot of comorbidity with obesity and mental health concerns and a lot of adjustment that has to happen for people even who have lost a lot of weight or been what we would call successful at weight loss. It's a very psychologically challenging process to stick with that behavior change, to adjust to a different body shape and how that interacts with other people in their life and with the world. You would have a dietitian to help support patients with their diet change process and somebody who can really help make sure that they're doing this in a healthy way and also observing for disordered eating, which we always have to be mindful of the weight management interventions that we're making. Are we triggering disordered eating behaviors in our patients that might not be actually helping them? A physical therapist or an exercise physiology professional, somebody who can help patients take down barriers to being physically active. We know that physical activity is a contributor to weight loss, but not the be-all end-all of weight loss, but it is a really big piece of weight maintenance. So once people are able to lose some weight, keeping it off really relies on healthy physical movement. So somebody to help people take down barriers to that. And then, you know, you'd want to have a good sort of two-way relationship with bariatric surgery. Because as we mentioned, there are some people who that's going to be a really important piece of their weight loss process. And so you'd want to be able to refer to the surgeons and have patients referred back who maybe need more medical weight loss approach. And we'd want to make sure that we were meeting. An intensive behavioral intervention is going to meet weekly for a while, and then monthly. There may be individual and group sessions. There may be digital ways to engage people. You maybe meet in person every month, but in between that, you're pushing out reminders and questions and reflections that they can use to sort of think about what they're doing in terms of behavior change. And then they're going to be following up with our PharmDs and our providers to talk about medications and manage their prescriptions. And then you'd also, I think, want to have a maintenance aspect, right? You'd want to have a way to sort of follow people once they've achieved what they need to achieve in terms of weight loss, then follow them prospectively and make sure that if they start to regain, okay, what are we going to do to address that? Or are there any

other issues that they need addressed as they're maintaining? And then eventually they'll go back into the primary care world where their primary care provider is going to need a toolkit to help them with any issues that come up in the future.

Dr. Clancy

That was a really good answer. So, Billie Jo . . .

[laughter]

Dr. Myers

It was incredible. [laughter]

Dr. White

I've been thinking about this.

Dr. Clancy

It really was. Yeah, it was really good. Well, and I think one of the points I hoped we could make today, and I just want to emphasize it again, I'm reading your minds here, but these medications are part of that, but they're not the be-all, end-all. Would you strongly endorse that?

Dr. Myers

100% agree. You really have to have that foundation of the different aspects, the food, the diet, the physical activity. That's your foundation, kind of like the pyramid, and then the medications are the tip.

Dr. Clancy

Great, great. Any other cautionary notes or concerns regarding who, what, how, and when these medications are used?

Dr. White

One thing that I would say is that, and I know Billie Jo can speak even more in a more detailed way to this, but it was alluded to a little bit earlier, but the use of these medications has exploded in the last year or two. I think I saw that Google searches for semaglutide increased 450% between June of 2022 and June of 2023. So this is something that our patients are seeking out outside of their typical primary care or medical, you know, environment. And it's created a lot of shortages because particularly semaglutide is a medication that treats diabetes. And so our patients with diabetes are losing access to the medication that really is a very powerful and important medication for diabetes

management because it's not accessible due to use of Ozempic for weight management by people who may or may not be doing that within the bounds of a good indication for using it. So I think it's been a really challenging situation to be in where the free market of medications has made the use of them by people who need them for their health conditions more challenging. So it's been a very interesting time. I'm sure there's plenty of people writing about that right now. But you would, in my career, I have not seen that type of issue come up before. This seems sort of new.

Dr. Clancy

Billie Jo, anything to . . .

Dr. Myers

Yeah, just to kind of compound on that, I would just want people to know that these medications are not without side effects and they're not without danger. So it's really important that you're accessing them through a provider and a provider is following you. I have seen so many advertisements of different ways of accessing these medications that's not through a provider locally or someone that is actually seeing you physically, and that can be very dangerous for your health. So that would be one of my biggest cautionary tales to everyone is to make sure you're using these medications in combination with access to your provider.

Dr. Clancy

Who actually really knows this care and this work. It's, I as a psychiatrist should not be prescribing this.

Dr. Myers

No.

Dr. Clancy

When you look on the horizon, what do you see as far as the treatment options? Obviously, this is a hot area. We have a high percentage of Americans with obesity issues. What do you see out there as far as future treatment options?

Dr. Myers

There are actually several treatment options that they're being researched right now. You'll see the, we'll just say GLP-1, because it's easier than saying it all out. But your Ozempic, there's an oral option that's being used right now for diabetes, and they're researching higher doses to see if that oral option would provide additional weight loss compared to the

lower option for diabetes. There's another one they're looking at that combines that GLP-1, that GIP, and then also a glucagon aspect to it, so kind of a triple therapy. That's probably the one that's most close to potentially hitting the market in the next couple of years. And then there's one that has some GLP-1 activity along with amylin, which is just another satiety type hormone in the stomach area. But I would say, I think when I was Googling through, there's probably 12 different medications that are being researched right now for potential use down the road.

Dr. Clancy

It certainly seems like there's more to come, for sure.

Dr. Myers

Definitely.

Dr. Clancy

Yeah, definitely. So you guys have been great. Really took a very complex subject and made it understandable. As we close, what are some of the take-home points you'd like to leave with our listeners? And let's start with Dr. White.

Dr. White

I think that a really important thing to remember when we're working with patients who are working on weight loss is to help them understand the complexity of weight and weight physiology and our limited understanding and how we need to be comprehensive in our approach. Think about healthy diet, think about movement, think about stress management, think about sleep health. And then also think about the medications and surgeries, but to not be laser focused on medication as we know that there needs to be multiple avenues addressed when it comes to weight management and help them understand that if it feels hard, it's not because they're doing it wrong, it's because this is a physiology that we just don't have a complete understanding of and we're sort of developing in our ability to have complex solutions to what is a very complex problem.

Dr. Clancy

Great, great.

Dr. Myers

And to just kind of follow up with that, I would really want to encourage people to realize and understand that all of this with weight loss is going to be a difficult process. It's not something that's easy. There's no quick fixes. It's not an easy once a day tablet that's going

to improve your health and help to reduce your weight. So be prepared for the battle, for the long run, and have patience with yourself and with your provider who's trying to move you forward in this process.

Dr. Clancy

Well, you guys are inspirational. When we're done with this recording this evening, it's going to be grilled fish and vegetables and exercise. So thank you for that. To our expert guests, Dr. Myers and Dr. White, thank you so much for joining us on Rounding@IOWA and for the work you've done in helping our patients.

[Upbeat theme music plays]

For our listeners, you can access instructions for continuing education credits within our show notes. And as always, we hope you join us again for another session of Rounding@IOWA.