Practical Approaches to the Treatment of Pediatric Obesity-Pediatric Grand Rounds-20261023_073015-Meeting Recording

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reminder to mute your mic and also that the see me codes are in the chat. Questions you can add to the chat and will be addressed at the end. Today it is my great pleasure to introduce Dr. Sarah Ditch. She's an associate professor of pediatrics at Washington University School of Medicine in St. Louis, Missouri.

She's board certified in pediatrics and adolescent medicine and is a diplomat of the American Board of Obesity Medicine.

Dr. Ditch graduated from the University of Missouri School of Medicine. She completed residency and fellowship training through the San Antonio Uniformed Services Health Education Consortium, and while serving on active duty in the United States Air Force. Currently, Dr. Ditch divides her clinical time between working as a pediatric hospitalist

and caring for patients in the adolescent clinic, where her clinical focus centers heavily on pediatric obesity medicine. Her professional interests include pediatric obesity, adolescent gynecology, and gender diverse care, fields in which she is actively engaged in clinical education, research, and patient advocacy.

And I will add that I have known Dr. Ditch as a sub-I, as a resident, and most importantly, as the pediatric PCP adolescent medicine specialist for all three of my children. So she is very near and dear to my heart. So everybody give a great welcome to Dr. Ditch.

SD **Sarah Ditch** 1:31

Thank you, Dr. Sutter. Thank you guys for this invitation. I'm excited. I love talking about this topic. My focus today, it's labeled practical approaches for a treatment of Pediatric Obesity because I really want to talk about what this looks like in clinic and so all the nuances that that comes with.

So that's my focus for today. And I will talk about the meds and GLP-1s, but other meds as well. And so hopefully you find that helpful. I'll talk about framing the condition that we're addressing and then go over the FDA approved medications for Pediatrics.
We will talk about the GLP-1s. I have added a section on GLP-1s and eating disorders that is, especially in the adolescent medicine world or the conferences I attend, that's a concern and comes up a lot. So I'm going to share what data we have. I talk a lot about the non-GLP-1 medications that are available, more available to our patients. If we have time, we'll get to some feature.
I have a case, don't know how big it shows up on your screen, but just to kind of, we'll come back, if we have time, we'll circle back to the end to see what you might think to treat this patient. So this is a pretty typical patient that I see in my clinic. So she's, this is her growth chart showing her BMI percentile and hopefully
If you guys use Epic or your EMR lets you expand it out, we really want to classify in like the percentile of the the percentage of the 95th percentile for our patients. So she's 14 year old female. She has anxiety, ADHD, binge eating disorder. She's here for weight loss medication. Her weight gain started around the time of puberty, super common for our patients.
She does have a history of binge eating disorder that did require intensive outpatient treatment, which she completed. I'm seeing her this just now. So this was like six months ago. She feels better after her program feels like her symptoms are more controlled and has lost about 10 pounds on her own by
less binging, more mindful eating. She's still very much engaged in care for her eating disorder, seeing a dietitian weekly and a therapist biweekly. And it was her dietitian that referred her to me feeling like she was stable and ready to go on this journey. What other meds she's on is super important. So
Adam, I never say its generic name, atomoxetine, which is certera, duloxetine, gabapentin, and guanficine. She did already have lab work. Not everyone that comes to see me has had lab work, but her labs are normal. So she really, as far as I besides the binge eating disorder, no real comorbidities. Her insurance is important.
So I'll talk about those caveats. It's through her parents' employer. And then I have her exact percentile down there. She's 125th percentile, the 95th percentile, which is class 2 obesity. So keep that case in mind as we kind of go through how we approach these patients.
So off the bat, this is, can be a sensitive subject for us, our patients, everybody. And

so I really try to frame the visit at the very beginning when I first meet a patient of that I am interested in my patient's health, that we, this is not a
beauty clinic or, you know, for cosmetics. And I kind of address those concerns and that my focus is really on their health and emphasize that their body size and their weight doesn't define their human dignity, their beauty, there's beauty at all sizes. And then recognizing the psychological and behavioral harms of the condition of obesity or previous attempts at treating it.
you know, they may have had not great experiences in the past. And then being mindful of thin culture and, you know, are we contributing to thin culture is something that comes up a lot.
Then culture is always around and kind of swings on a pendulum. So I like to give examples from the 90s because it was pretty intense then, but I wonder if we're kind of swinging back. So hopefully you guys have seen the Titanic, or at least seen clips or pictures from it. But Kate Winslet was a
perfectly, naturally proportioned, size 4, 6 woman playing this role. And a couple years ago, she started talking a lot more about how she was criticized about her weight, was told she was too heavy for Leonardo DiCaprio. And then the
famous or infamous floating door scene is what became like a cruel joke about her size and that Jack might not have had to die if she wouldn't have been so heavy, which is horrible.
More recently, I'm a huge Wicked fan. So on the right was Wicked for Good at their debut, and they're very thin appearing actresses. A lot of fans kind of commented for Wicked for Good that it appeared, I don't have any of the data, but it appeared that they looked even thinner, you know, which...
Again, it was very concerning to me, concerning to a lot of fans. I have no evidence that they were on weight loss meds or anything like that, but...
And then these are all from my personal social media feeds, like that I get ads because I am researching and Googling GLP ones all the time. And so I get all the ads. And these examples are just to illustrate like what our patients are seeing. And I kind of bring this up, especially either them or their parents are for sure on social media. And this is not how these meds are supposed to be used. Like, they're like, you're not obese, we don't care.
And then we're flooded with even more of them, showing, you know, patients with normal BMIs in swimsuits and showing that they're on GLP-1. So recognizing that this is what our patients are seeing and being exposed to during the appointment.

So how to approach your patient?
Even though my appointments are for obesity, I still start all my visits with, what are we here to talk about today? Some parents don't tell their children that that's what we're talking about, or sometimes they forgot that that's what we're talking about. So I always make sure they know and that they're okay to talk about it. And I say, if we start talking about something you don't want to, you just tell me to stop.
Or if you're in your primary care, but you know that their condition of obesity might be contributing to their symptoms, you know, say, hey, is it okay if we spend a few minutes talking about how I use metabolism? So I would say how your metabolism might be affecting your blood pressure, your sleep, your
your joint pain or whatever it is that you're addressing. Using people first language, and you really have to practice this both in your documentation and how you, when you're presenting patients. This is a patient with obesity or with the condition of obesity. I use condition and not disease. You know, it is a disease, but
That's the language I use. Not this is an obese patient.
And I have a whole speech I give my patients about our understanding that body composition is from multiple factors, genetics, environment, social determinants of health. Many things are patients that are not choices they made or things in their control, and that this is not a problem of willpower.
So what is the condition of obesity? It's a complex chronic disease. There's kind of three categories of the pathology. The adipose tissue itself isn't functioning normally, and that leads to an endocrine immune response, and that's your symptoms of, or complications of metabolic syndrome, hypertension,
PMOS, the new PCOS, puberty disruption, dyslimidemia. The presence of the extra adipose tissue causes symptoms as well, such as it can cause breathing issues or even asthma, immobility, conditions from tissue compression, such as acid reflux or sleep apnea.
And then the psychological complications, feeling isolated, less participation in activities, bullying and eating disorders, which like I said, we'll talk more about.
I'll go a little bit quickly through these slides, but we all we see this in our practice that this is very prevalent. So orange is born male, purple is born female, and you can kind of see once puberty hits, there's a little bit more of a female predominance.
And then when you combine overweight and obesity, so on the left is 5 to 14, on the right is 15 to 24. And when you get in that category for females, it's more than 50%.
So you will see this in practice. This is, you know, this is not something you can just

not ever address, particularly in primary care.
and is something that affects A majority, a significant proportion of our patients. Here's a heat map. As you get more orange and red, that's higher prevalence. And so you can see where Texas is, males is on the left, females on the right. For Missouri, I'm about the same for females, a little bit different for males, but not much different moving here to Missouri.
So I also have kind of talked to my patients and when I give, teach residents in my clinic is that we really need to think about treating metabolism the same as other chronic, relaxing, remitting conditions. And there's so many to compare it to, asthma, ADHD, epilepsy.
all kinds of conditions that our patients will have lifelong and that they, at some points or for all of it, may need a controller medication. And so offering medication is a part of comprehensive care of these conditions, and that should be the case for obesity as well. Intervention prevents or treats complications. So the other thing I share with
I always talk about is doing nothing is not without risk or harm. So yes, there's hesitancy. Yes, we need to be at the right time in the right patient, but you also need to compare it to what's the risks of doing nothing. There's no evidence that early intervention affects growth or development. There is a lot of evidence that obesity affects growth and development and precocious puberty.
effects on bone health and all kinds of things. There's no evidence that staged management achieves faster or better results. So, you know, hey, work on your diet for three months, and then let's work on exercise for six months, and then we'll bring up medication. Not that that approach is wrong, but there's no evidence that that produces better results.
And then the other thing to think about as well, when we're proposing a medication this child might take for life or for a really long time, is hopefully we're substituting one medication to manage their obesity as opposed to four or five medications to later to manage.
you know, later in life when they develop complications of diabetes, hypertension, now they're using a CPAP machine. Maybe they need more than one medicine for their diabetes, or they've developed PMOS and our medications for that. So trading one medication for four or five is definitely better.
I love these graphics. There's a website, obesity visuals, that is made, that is free. It's made by Joseph Zucchi, who's an obesity provider, and they're free. And I did get his

personal permission to use these slides. But he puts really helps. There's the drugs, there's so many, and there's so many more in the pipeline.
And so really knowing all of them, the visuals I like that helps. So the stars on the left are the ones that are Fda approved for kids. So we have the semaglutide injection or Wegovy, that is the most effective medication that's approved for kids. And then on the right, it has the age.
for the FDA approval. Topiramate, phentermine and topiramate combined in an extended release capsule, Qsymia, next most effective. Liraglutide is the daily injection, GLP-1, that is approved for kids 12 and up. You don't hear about it maybe a lot because it's less effective, and it's a daily shot. I have like maybe one patient on this because that's what their insurance covers.
but is not as popular. And then ventermine itself is approved for 16 and up. And then the last one I have an X over it, hopefully nobody's using orlistat. That's the one where you don't absorb fat and you have lots of diarrhea, so not, and it's not very effective.
What's not starred is tirzepatide, but you see that at the top. Keep that in mind. And then, because that one will show up on later slides. And then, I don't, this drug name, or Freglipron or Fondeo, which is the oral from Eli Lilly that also makes tirzepatide. That's right above Kisumia. Keep that one in mind as well.
For later slides.
I'm going to talk briefly about monogenic obesity. The majority of what I treat is polygenic or non-monogenic obesity, but there is another drug. It's an injectable medication. It's not a GLP-1. It's an MC for our receptor agonist. But setmolanotide is a drug approved for children for obesity, specifically monogenic obesity, H2 and up. and recently acquired hypothalamic obesity, age 4 and up. So those are some examples listed there of monogenic obesity. It is a daily injection. It's, I can't really quote its effectiveness because it depends on what you're treating, but it is effective. It has kind of not great derm side effects. That melano in the name means it activates your melanin receptors, and there's a bronzing of the skin effect, which I have seen in clinic, and it's quite impressive. It definitely looks like the patients were hanging out in the tanning booth.
When it, what is important though is if you think your patient could have monogenic obesity, it can change their insurance coverage for medications. So it's not the issues with the MC4R receptor, which I'm not getting into how that works, it's in the brain. has to do with your satiety center. It only counts for 2 to 5% of severe obesity. So less

than that of all obesity, but even severe obesity is not a huge cause of it. The things you want to think about is if you have a patient who had obesity before age 5, a rapid weight gain before age 2, that the parents are normal weight. And then hyperphagia is the big symptom to think about. So we're not talking about just that they eat A lot. It's an insatiable hunger, like they're locking up the food. The time to feel full takes a really long time. And the amount of time they feel full is short. There's a severe preoccupation with food.
distress if food is denied. And the Endocrine Society also gave some guidelines. So if one study, I'm sorry, those guidelines came from the Endocrine Society of the Extreme Obesity Before Age 5 with hyperphagia. And then another study suggested if there's a BMI of 27 or more or 140%
of the nine, so class 3 obesity in a two-year-old or a BMI above 33 or the 184th percentile percentage of the 95th percentile at age 5. So that kind of gave some cutoffs to think about monogenic obesity. And then I listed on the right there, often you don't just have obesity when you have
genetic conditions are often other signs and those are some of the things that can happen with some of these conditions.
There is a genetic testing available that is free to patients. They do need a physician's order, so you are involved and you should give some genetic counseling. They do have, there's a phone number, they can talk to a genetic counselor, but this doesn't affect, for now, doesn't affect health insurance coverage if you test positive or something, but it could affect life insurance. So
You do want to give a little counseling, but the patients can swab their cheek at home and mail it off. They just need a physician order. This is not like whole exome sequencing, so it's not going to catch everything, but it is an option to be tested for this.
Okay, so back to non-monogenic obesity. So I mentioned liraglutide and semaglutide are the two GLP ones that are approved for 12 and up for the treatment of obesity. A reminder, and like I said, I'm only briefly going over like the definition of obesity and like
the pathology of it, because I really wanted to focus on what it looks like in clinic. But briefly, as a reminder, GLP-1 is secreted by the in the ileum and colon. It is secreted in response to eating, which is why these drugs have like less concern for like hypoglycemia. When you activate these receptors, that initiates a series of metabolic responses. So enhanced

influence secretion, suppresses glucagon secretion, delayed gastric emptying. I talk a lot about that with my patients because that's where a lot of the side effects come from. Less hepatic gluconeogenesis, and then all the effects in the brain. So all the things you hear about, like reducing food noise, how it probably helps with binge eating disorder, that kind of thing.
affect, there's a lot of receptors in your brain. In addition to the brain and the GI tract, you have GLP-1 receptors in the pancreas, heart, and kidney as well, which is probably why we're seeing more indications for these meds, such as like prevention of secondary heart attacks or even chronic kidney disease.
This, I have a lot of the graphs from the phase three trials that showed effectiveness. Just to give you, like you saw that graph showing those, I forgot to mention, like when we were looking at effectiveness, when we're quoting like effectiveness, it was the average percentage of weight loss in the phase three trial of that drug.
So in most drugs, it's about a year. Some went, this one went to 56 weeks, some went to like 68 weeks. So they're not quite apples to apples, but it's the best comparison we have. But this is the one for liraglutide. And when you review these studies, you always want to compare what was happening with the placebo because they usually were doing some in some like lifestyle modifications or something for the placebo patients.
As a reminder, liraglutide is the less effective of the two approved for kids and is the daily injection. Another way to compare liraglutide and semaglutide is at 56 weeks in this study, in the treatment group, the percentage of patients that lost more, or that, yeah, that their BMI decreased
at least 5% was 43%, whereas in the placebo group, only 18% got that change.
And then this is semaglutide for Pediatrics, their phase three trial. And to compare that same number in the treatment group, 73% had at least a 5% decrease in their BMI.
Those are kind of the best ways to kind of try to compare these two. When I talk to patients about them, I do tell them, you know, all these drugs have an effect. And of course, there's individual. Some people respond very well to some medications. There are non-responders to some medications. But just to show you, these were the studies that got them approved in children.
Okay, so practically what does this look like in clinic? So in 20, I just talked to you, you saw there were five drugs that are Fda approved for kids. Might be like, great, this is, you know, I have so many choices. But you probably have all experienced that

these historically have not been covered well. And then in 2026,
It really ended like in January 2026, most insurance companies limited coverage or didn't cover GLP ones at all. Or to be honest, most of them say if the indication of whatever you're prescribing is for obesity or weight management, not covering it at all. And I have one patient whose insurance company won't cover her visit with me. because it's coded for obesity. And even though she's cash paying for Wegovy, I, because that's in the visit, they're not even covering the visit. So there is definitely a cost barrier. And then there's, for adults, there's better luck with other indications. But in Pediatrics, these drugs are only approved for obesity.
They are not approved for sleep apnea or other conditions. So we really don't have that option. They're expensive. They are getting better. You know, a couple of years ago, they were $1,000 a month to get access to these. And then on the right there, this was a study showing that not treating obesity is expensive.
So it's on the top there, you see that's for adults. So it's kind of showing as their BMI goes up, the predicted expenditure. And then on the bottom, it's showing like by Z-score for children, the expected cost. And
For adults, obesity was associated with $1,000 excess annual medical cost per person, accounting for $172 billion per adult, like over a lifetime. And then for children, obesity was associated with $116 excess cost per person.
And then 1.3 billion of extra medical spending with overall. And so there's a lot of advocacy going on to try to change this because this would actually save insurance companies money. But anyway.
This was a map I found recently, which was interesting, is that showing which Medicaid programs do cover GLP ones. So y'all in Texas, as you're probably aware, Texas Medicaid does not cover GLP ones. This is for children and adults, or any adults that are on Medicaid.
Missouri does. So I do, I didn't know that when I moved to Missouri, but I do have some options for my Medicaid patients.
GLP-1s still account for a relatively small share of total number of Medicaid prescriptions. Only about 1% of Medicaid prescriptions in 2024 are GLP-1s, up from 0% in 2020 or 2019. However, they account for 8% of drug spending because these drugs are expensive.
So I'm not going to talk a lot about this, but obviously when I give this lecture in Missouri, we go into it.
But what's interesting and why I still keep this slide is, yes, Missouri Medicaid covers

a GLP-1, but not the FDA approved ones. So clearly, it's also clearly like a cost game. So when I first started practicing here in 2025, semaglutide as Ozempic, which is for FDA approved for diabetes, was the one that my patients had access to.
But it's still the same drugs, ameglutide. So that's cool. But then, so I started all my Medicaid patients on that. And then in this, in 2026, because tirzepatide became approved for pediatric obesity or for pediatric diabetes as Manjaro, Missouri Medicaid changed to Zep bound as their preferred GLP-1 for
12 and up, even though it's not FDA approved for kids. They are doing studies for 12 to 17 year olds, so it may be coming as an option. But so yeah, I got to switch all my patients to tirzepatide. But because they have that Manjaro study, which I do have a graph of it later, we do have safety data and stuff. But tirzepatide, if you remember from that graph, is a little more effective because it has a second drug in it, the GIP. So just briefly, GIP is glucose dependent insulinotropic polypeptide. How it works is listed there, and it should sound familiar, where it says like stimulates insulin secretion and suppresses glucagon secretion, similar to how GLP-1 works, but when you combine them, you get more effectiveness.
I do have some slides on here on cost and you know that I think, and it's just really important to recognize this is what our patient, some of my, some of my patients come to me knowing all about this. You know, they've got family members on GLP ones. Some, this is a don't know, and I have to explain to them. First, I go on and talk about how
you know, how these medications are appropriate to be prescribed and are not cheating or the easy way out, like this is the right thing to do. But then we get to the Med talk and we're like, oh, man, these are not accessible because of price or not covered by insurance. So these are the different GLP ones and showing kind of the price. And when you see the price goes up, that's because the
The first two doses are the cheaper price, but then when you get to actual treatment doses, it's more expensive. We were all very excited about the oral GLP ones, but they are only like $50 cheaper than the injectable. And then most of the coupon prices, especially from Eli Lilly, are through the manufacturer, and they do not approve off-label prescribing. So even though I told you I'm prescribing tirzepatide to all my MO Medicaid patients 12 and up, if I have a non-Medicaid patient that's willing to cash pay for tirzepatide, we can't get it to the affordable price. They can get the $1,000 a month price, but the manufacturer won't approve the coupon for a non-FDA indication.

And then liraglutide, the daily one that I said I don't really have a lot of patience on, is generic, but the price didn't go down, so it's still very expensive.
I do want to mention, talk a little bit about oral semaglutide, because I have heard in states like Texas where there's no GLP-1 option, this is the most affordable cash pay option for a GLP-1 and they do, they are prescribing to 12 to 17 year olds.
Again, you have to get a coupon that's not through Novo Nordisk. But what I really want to emphasize about it, well, first, the two points at the bottom, same side effects and same effectiveness. It was right next to injectable semaglutide on that graph I showed you. However,
For it to work, it must be taken in the morning on an empty stomach with water only, no more than 4 ounces, and then you must wait at least 30 minutes to take any other morning meds or to eat or drink. As an adolescent doc, when I first read this, I was like, I can't even get my patients to do Prilosec properly, and this is even worse. So And if they don't do this, it's going to be less effective. So that is a little bit of a barrier, I think, to anybody, even adults would kind of struggle with that. And of course, a lot of my patients are on other morning meds and they're kind of rushing out the door to go to school. So just be aware that that's how to take it. And then the other thing is it has the same or even more stomach side effects.
So if we're switching to oral semaglutide because of like an intolerance of injectable semaglutide, it may not be helpful.
Briefly, this is the study showing the effectiveness. I will say, if you notice on this graph, it shows 13%, but the other graph I showed was 16%. And that's because they quote, they reported both like real world, like intend to treat, and that's the 13% effectiveness to get to the 16%, which makes it equivalent to injectable semaglutide. that was under ideal conditions. And that probably goes back to how to take it. And if anyone, it's this, the oral semanglotide is the same as ribelsus. And if anyone has any experience treating diabetes, that drug had a lot of, a lot of people didn't like it because of the side effects. And then to make it an obesity drug, they went way up on the dose.
And so there was a lot of, I think a lot of patients are tolerating this well, but there was a lot of trepidation that this might have even more stomach side effects.
I have just one slide because you may get asked about, well, can I just go buy some compound compounded GLP ones or maybe I have a lot of parents that are on compounded GLP ones that are coming, you know, that are bringing their kiddo to get on a GLP one. I do not have any idea how, if even the online companies will

accept minors. I don't know anything about that. And I tell them,
I don't manage compound GLP-1. So I completely understand why there's such a market for them because of the cost. But I don't, I can't recommend them and I don't manage them. Some things to know about it, if they do, if you get asked more question is the semaglutide is different in most of these drugs. It's a salt that is chemically different than the FDA approved semaglutide.
There are there have been case series of dosing errors, either what's mixed in is not correct or the or the patients are drawing up their own volumes. And if it's pretty concentrated, even like a little volume error can be a big dosing error. And then there's
These aren't regulated by, you know, the Fda. These are, and they're regulated by the state boards, which can be extremely variable by state. One compounded pharmacy was using a toaster oven to sterilize their equipment. So it's not saying all of them are doing that, but that exists in just something if you're, you know, to be aware of. that your patients may ask about.
I like to keep this slide in too, because this can come up. I go over all this when I prescribe these to my patients, but if you're admitting a patient on a GLP-1 or maybe they're seeing you in the ER and you're talking about like, or maybe your patients, you're filling out a camp form for them to go to camp and they're on a GLP-1,
I think it's helpful if you're aware of how the logistics of storing the pens and using the pens. They do need to be refrigerated, and when they are, they're good till their expiration date. However, I tell my patients to let them warm up before you inject it. And then once it's to room temperature, okay, tirzepatide and semaglutide have slightly different guidelines. So
For tirzepatitis says it's good for three weeks, semaglutide up to four weeks. So that's important to know that they don't need to travel with a cooler if they're going on vacation. They can go to a week or two summer camp and bring their meds, and they don't have to be in the fridge. They just can't get above, I think it's like 86 degrees. It needs to be at room temperature. But
And then once it's warmed up, it can't go back in the fridge. So once it's warmed up, it's only good for three to four weeks. It's no longer good till its expiration date. And they need to check the liquid and make sure it still looks clear and not foggy. They should throw it away if the liquid doesn't look clear. Light does damage it, so they are supposed to keep it in the box it comes in.
And then this one is, I think, is important. If you're admitting a patient and they're

going to miss their dose, or maybe they call your clinic instead of their obesity prescriber, and they're like, I didn't get it from the pharmacy. I'm going to get it tomorrow. Can I still do my injection? So semaglutide,
That gives you an extra day, but basically you can be a couple of days late and still take your shot, but you need no less than three days between 2 injections for semaglutide and no less than four days between tirzepatide doses.
That can get confusing for patients. So I think this next bullet point is the most important, is that you can miss one dose. So you can go up to two weeks between doses and not have to restart at the lower dose and retitrate. So if you're admitting a patient, especially if it's for like gastroenteritis or belly pain or something,
and that you can hold their one dose as long as they don't go more than 14 days between doses. If they're admitted longer and need to go more and you can't give them their GLP-1 while they're admitted, that's okay. Just they need to contact their prescriber and start at a low dose and go back up. I also tell my patients, like, if you get the flu or a stomach bug, go ahead and skip a dose. You don't need to be like also having your side effects.
And.
And then I have this blur up at the bottom. I just double checked this the other day. This is still the case. So up to date on tirzepatide has that because of delayed gastric emptying, the hormonal oral hormonal contraception may be less effective for four weeks after starting the medicine and each dose change. And because these are titrated every month,
that could be the whole titration time, four or five months, their patient's oral hormonal contraception may be less effective. Semaglutide, which also delays gastric emptying, doesn't have that precaution on their labeling. So I'm not really sure the difference. So I
It's something to think about. The other non-oral options still are going to be effective, but it is something I tell my patients.
All right. Side effects that just things to be aware of and then things also that you can see patients coming into urgent care or the ER for mostly GI. So like, and that's mostly the delayed gastric emptying. So nausea, vomiting, diarrhea, can be constipation.
Pancreatitis was talked about a lot at the...
When these first came out, it's really not a caution, and you don't need to like trend lipase levels on these patients. The gallbladder and biliary concerns is unclear if it's

due to the medications or if it's more just the rapid weight loss.
I do talk to all my residents and patients about this, the eye concerns, retinopathy and NAION. Rare, but we have seen case, there are case reports of it. I haven't seen any. But so I tell my patients if you have eye pain or change in vision, that's go to stop.
Urgent ophthalmology visit and stop your GLP-1.
Um...
And then hypoglycemia, I mentioned already, is rare in these drugs. And even if you're on metformin as well is rare.
If you see these patients with abdominal pain, recognizing 70% of patients have GI side effects and it increases at higher doses, especially if there was a recent dose change. But severe or sudden abdominal pain, especially if they've been on it for a while, is not common.
Don't just blame the GLP-1. The GLP-1 is probably not helping, but suspect other causes. And you work them up the same as any patient with abdominal pain, labs, maybe imaging. If it's mild and you're able to get symptom control and rehydration pretty routinely, you can discharge, and you're discharging them from the ER.
you can continue their GLP-1. But if it was severe, it took multiple boluses, maybe they were admitted overnight, I would, you know, it's also reasonable to have them stop their GLP-1 and follow up with their prescriber.
The GLP-1s, if your patient's on a GLP-1 and you're starting other medication, the good news is it has very little med-med interactions and there's no dose changing recommendations. I mentioned oral contraceptives. Just know some drugs may have a delayed onset, but there's no recommendations to change any doses.
Okay, so to get to my little section on eating disorders, it's important to recognize that adolescents with obesity, it's more common that they have disordered eating than adolescents with a normal BMI, especially binge eating. And it might be due to tried and unsuccessful intentional weight loss.
or that there's shared genetic and psychological risk factors. We don't have a lot of great data on this yet. Most of the data was after bariatric surgery, and it did show that rapid weight loss increased the risk of developing an eating disorder later.
So I did a literature review on this recently, found two meta-analysis that I wanted to share. They don't really answer our question with like super firm data. I think we need, you know, this is relatively new, but the preliminary results are promising. But again, this still needs to be ongoing. So this meta-analysis was 38 trials.

from 10 countries. So to our knowledge, the largest review is from 2025. Some limitations, most of the patients were female, which is common in weight loss trials. There was short follow up, not more than a year. Most of the eating disorders studied were binge eating disorder, not like our restrictive eating disorders.
And what this meta-analysis was looking at was any weight loss intervention, lifestyle, bariatric surgery, anything. And so only two of the studies were GLP-1 trials. But what they found was that with, if there was modest weight loss, there was an improvement in disordered eating symptom scores.
The improvement was maintained at follow-up. The magnitude of weight loss did not predict changes in disordered eating, and the improvement in the disordered eating was larger in the patients with pre-existing eating disorders.
The second.
A study was in 2026. So this was 25 studies specifically with GLP-1s and two of them were adolescent trials. They looked at patients that did not have eating disorders at baseline. And what they did, seven of these trials did look at more than a year out. So that was a little better.
But again, few of them had eating disorders that were restriction as opposed to binge eating. It's just hard in this population. But what they found was the eating behaviors and eating disorder symptoms either improved or did not change during GLP1 treatment.
There was none of the trials reported on changes in eating behaviors following stopping the medications. And most disordered or obesity related eating behaviors improved during treatment. So emotional eating, food cravings, binge eating, which makes sense. That's consistent with how GLP-1s work.
Again, that's all the data that we have so far. It is.
promising that this could be helpful, but how do you, so what practically do I do? Like our patient in our case study has a history of eating disorder. I do screen all my patients for eating disorders. The Eat 26 is great. I use the EDE QS and I have very close follow up. And then I make sure there's stability. So if there's either the eating disorder or other
mental health comorbidities are not stable or well controlled, it's probably not time to start a weight loss journey.
All right, hope, okay, good. I want to make sure I have time to talk about non-GLP ones. So, like...
So my most Medicaid patients have access to a GLP-1. If it's the right med for them,

that doesn't mean that's necessarily the one we choose. So the other, the non-GLP-1 medication that I do talk to my patients about is phentermine topiramate extended release capsule, known as QSYMIA. So I'm going to go over the individual components. So phentermine,
I describe it as high dose caffeine for my patients, but it's a stimulant and it suppresses appetite. And it has a single mechanism of action of, or a single weight helps with weight loss of suppressing appetite, and it's pretty effective at that. It has the same side effects as your other stimulants, irritability, insomnia, dry mouth, dizziness.
It can have some GI symptoms, but nothing like the GLP ones. It can be used with hypertension that's well controlled, so that's not a contraindication, but hyperthyroidism and cardiovascular disease, most of which our patients don't have. So most patients can be on pentermine.
Topiramate, it works in the brain. So I kind of talk about that phentermine tries to recreate what the GOP-1s do in the brain. It helps with the like food cravings or dopamine release or kind of binge episodes.
Working mostly with GABA activity.
Side effects, it was studied as an anti-epileptic at higher doses. So I do talk about the side effects, especially the cognitive dysfunction, which can be like word finding difficulty. Most of my patients tolerate it just fine. And then I don't routinely get labs, even though we know it can cause a metabolic acidosis. Again, those are at higher doses.
But I do talk about decreased sweating and that they need to drink water. And then you may have read about that topiramate can interact with birth control. That's really only at doses above 200 milligrams, and we don't go above 100 for this indication. But it is teratogenic, so it can cause oral and cleft palate and SGA.
So it's contraindicated in pregnancy.
Topiramine by itself, if you know, it's not FDA approved for obesity, it wasn't on our list of meds that I showed you, but it is used off label, again, because it works in the brain as like night eating syndrome or sleep related eating or binge eating. And then along with metformin, it is one of the medications that you can prescribe when you start
obesogenic medication like an atypical antipsychotic to try to prevent the weight gain.
So here's the study for the phase three trial for phentermine tropyramid extended

release. It comes in two doses. So the red is the mid-dose and the orange is the high dose. And that high dose was about, you know, 10% change in BMI is what we saw on its effectiveness.
The combination capsule, so it combines phentermine with extended release topiramate, which is great because you don't want to take phentermine later in the day because it's a stimulant, so you get kind of all day effectiveness. Works by reducing appetite, enhancing your fullness, and then there is a mechanism that they work together, we don't fully understand, but that does together really does produce more weight loss than either drug separately. And so they definitely complement each other. And they're better tolerated doses of each in the combined capsule.
It comes in weird dosing. I don't know of all these numbers. If you see those topiramate numbers, like why not 25, 50, 75, 100, like we would do with topiramate by itself. But that there's four doses, but the mid dose is the 7.546 and the high dose is 1592. And all that says there on the right is basically
You try the mid-dose for 12 weeks. If you don't get effectiveness, then you go up to the high dose. But there are four doses of it available.
Things to know about it is it is in a REMS system, like Accutane is, if you're prescribed it. I've been around that. Now, Accutane is more complicated, like the prescriber has to do something. But for this one, the prescriber doesn't have to do anything special, but just not all pharmacies will carry it. And it's in that because it's teratogenic, so should your patient be on birth control? I mentioned I don't do lab monitoring. And then, so what does this drug cost?
Because if their insurance doesn't cover GLP-1s at all, it may not cover, or doesn't cover drugs for weight loss at all, it may not cover this medication either.
So I looked these up for the zip code for Fort Sam, because that's the one I knew. It is not bad. There is, it's generic. So make sure your patients are looking for the generic and not, of course, cost does vary. So this was just one example, but typically patients can get it for about $60 a month for a one month supply.
Or, phentermine and topiramate can be prescribed by themselves, because while $60 a month is a lot more affordable than the GLP ones, that is still a barrier for a lot of patients. So phentermine doses are listed there, and topiramate doses are listed there. The topiramate dosing is similar,
Bentramine by itself, though, does not come in lower than a 15 milligram capsule. If you look it up, there is a 4 and an 8 milligram, but those have to be taken multiple

times a day before each meal, which nobody's going to do. So I do try to mimic QCMU dosing, but it is different.
But Phentermine is a lot cheaper. So even if the insurance won't cover Phentermine because it's for weight loss, about 10 bucks a month. And then Topiramate, again, about 10 dollars a month. It doesn't matter if you do 25 milligram 2 tablets or 50 milligram one, they're about the same.
I mentioned that Qsymia has extended release Topiramate in it. 50 milligram Topiramate extended release is 70 to $90 a month. So they might as well be getting Qsymia. So I'm not quite mimicking that. They are on the shorter acting Topiramate. So if my patient, this is the most affordable option and I have a lot of patients on this combination. So I take the Phentermine 37.5 milligram tablet and have them break it in half to get that 18.75. And then I have them do Topiramate 25 milligrams per week and then go up to 50.
I do have them taken in the morning to mimic Qsymia, but you do have options to divide it twice a day if they have some night symptoms. And this is a very well tolerated and effective regimen. If it's not effective, you do have more options. We certainly can go up on the dose of phentermine. We can increase or the topiramate. And so I do have options to kind of tweak that.
Okay, so hopefully we have a little bit time to, I think we do, to get back to our case. Choosing a medication. So just like any other condition, you want to think about how effective it is, side effects, contraindication, patient preference. Some of my patients say no needles, nope, that's not okay for me. And then we go down our oral medication options.
GLP ones are the most effective and very few Med Med interactions, but insurance coverage is a huge issue. Semaglutide is the really only realistic cash pay option for people 17 and under. And then
Some patients really want a GLP-1, even if they have coverage for it, if they have a lot of...
stomach issues or chronic GI issues or DGBIs or cyclic, you know, like cyclic vomiting and that kind of thing, I would hesitate to start a GLP1. You're just going to make that worse.
Phentermine and Topiramine separately is the most accessible. Phentermine, there is a Fda warning about serotonin syndrome, but that's lack of data, not any known data. And the Endocrine Society still recommends prescribing phentermine with SSRIs or SNRIs. Where I run into issues is if my patients also want a stimulant.

I'm not going to prescribe phentermine if they're also on Adderall. So a patient with ADHD, this can become problematic. And I mentioned with topiramate, really, it's the only patient with topiramate besides pregnancy consideration is if they have epilepsy, you'll need to work with their neurologist.
For treatment goals.
You do, I do talk to them about slow and steady weight loss is the way to go. So no more than one kilogram per week. Slower is kinder to their body, and especially to tolerate the GLP-1s that they must eat regularly.
A lot of my patients are skipping breakfast and even skipping lunch. And so talking about that is something I go over in a lot of detail.
And then as far as like...
I do talk to them, you know, you're not signing up, that you're taking a medicine for life, but these are controller medications. And if you do take this and lose some weight and then stop them, most people gain weight when they stop these medications. So we have a, I talk a lot about that as well.
All right, we made it back to our case. So...
Remembering our patient, she has some psychiatric comorbidities, history of binge eating disorder. Her stratera is not a stimulant. So even though she has ADHD, we don't have that Med Med interaction. So does she meet criteria for treatment? She does have class 2 obesity. She does have her history of binge eating disorder, which is not a contraindication, but we do want to be cautious in this patient.
Although there might in the future be an indication for GLP-1s to treat binge eating disorder. And we also know Topiramate is used off-label for binge eating disorder. She gets insurance through her parents, so GLP-1s are not covered. She's also on 2 SNRIs, which I had to, and that's quite a dose of Duloxetine.
But that's managed by her psychiatrist, so that was on purpose. And again, it's a theoretical risk, so phentermine is still an option. So for her, we ended up, really all the options are available, and so shared decision making. For her, we ended up doing the Kisumiya capsule. She was very nervous about being on a stage. stimulant because she had not great experience with like stimulants for ADHD. So the QSIMI extended release capsule has a much lower dose of phentermine.
All right.
I'm going to get to questions. I just this slide was talking about that they are there are trials going on for 6 to 11 year olds. Nothing's approved yet. But liraglutide will probably be the first one we see in 6 to 11 year olds. Semaglutide is done collecting

enrolling patients and should be their data should be available at the end of the year. And then tirzepatide is still working on getting approved for 12 to 17 year olds. And then Qsimia is not actively pursuing approval under age 12 at the moment.
I was just showing the study with Manjaro for diabetes, but that it did produce weight loss in kiddos.
All right, so I think I left some time for questions, if we have any.



Sutter, Deena E 52:57
Thanks so much, Dr. Dietrich. I just wanted to, okay, so I'll go ahead and read a couple of questions out here. Dr. Pearlman was asking, we use compounding pharmacies all the time for other medications. Why can't we find and recommend a quality compounding pharmacy for GLP-1 meds too, rather than throwing up our hands?
and saying it's too risky.

SD

Sarah Ditch 53:18
So I mean, certainly I know of physician colleagues that that is their full-time job, that they partner with a pharmacy and do compounded medications. So I don't, I wouldn't say that's not something that you can do. If you are going to incorporate that in your practice,
there, that would be, you would, you know, like I said, you would want to know where you're, who you're getting it from, where you're getting it from, and like develop that relationship. Just, just because they're not regulated all the same and widely available. So that, it's not that we, you can't do it.
It's just, you know, you become kind of a prescriber in the pharmacy, you know, working with them. It's just what I don't, what I meant by that I don't do them is that like, if I don't have my patient go get them online from, and they're getting them from some other prescriber that's like filling it and like ordering it coming to the mail. Like, I'm not gonna manage that, like, to give them dose advising and stuff like that. Like, they gotta do that. So, if you guys, there are there are physicians working for these companies to do it, so that's not like that's not an option. And then some of them are very legit, like, so some of them are safe, and
Definitely a lot of people take and do well. Some of them are not, and there have been, they're just not universally regulated, so you just have to be careful with them.

Sutter, Deena E 54:47
Okay, thanks. We have a question a little off that topic, which is any research US or worldwide using hypnosis with non-genetic, non-disease-driven obesity? Anything you've heard about that? Any Psychiatry interest in these kids been using any of this?

Sarah Ditch 55:07
I don't, I can't quote any data, so full disclosure with that. I do know we are recognizing the, so the food noise thing and with the GLP-1s, this dampening of the dopamine release from eating these hyper-palatable foods,
is how some of these medicines are helping. And in fact, that's why they're, and then they're finding people in GLP-1s like there's less alcohol use disorder, and it's helping with other addictive behaviors. And we know hypnosis works for like smoking cessation. So I would fully believe that there could be a role for that. I'm not, you know, I'd have to research.
if there's any ongoing studies. I'm also a medical acupuncturist, and there are acupuncture protocols as well for obesity. So the roles of complementary and alternative medicine, absolutely, like, and people could pursue both at the same time if they wanted to.

Sutter, Deena E 56:00
OK, Dr. Gross is asking, has extended extended release methylphenidate been studied for weight loss?

Sarah Ditch 56:08
Not to my knowledge, but certainly we know that all the stimulants can suppress appetite, and I don't actually know the data comparing the different long-acting stimulants, but I personally, in my experience, feel like that, I think you're referring to Concerta, does have a
pretty potent appetite suppression. I, and then of course, if my patients or a lot of my patients, you know, I can't give them phentermine if they're on those, but I do talk to them about, well, if you did get some appetite suppression and you're, you know, let's go to your max tolerated dose of your stimulant, it'll help with your ADHD. And then you can add just topyramine to that.
and see if you get the same synergenic reaction with that stimulant and topyramate.

So I have done that in some patients. But I do talk to them about optimizing their ADHD stimulant, especially if they're getting that added benefit of weight loss. If they're on their stimulant and it's not causing any weight loss and it's not controlling their ADHD symptoms, then we have some shared decision making, like, do we want to try a different stimulant?
Or do we want to try a non-stimulant ADHD medicine and then go with, then I do that does open up pentermine and topiramate as an option for their obesity.



Sutter, Deena E 57:24
Okay, thanks. And then our last questions are any thoughts about retatridide, trutide, sorry, I don't want to say these words, and will it eventually replace tirzepatide?

SD

Sarah Ditch 57:38
Yeah, so I had to kind of go quickly over this or skip this slide because it's very busy. But yeah, everyone's very excited about Retitu Tride. It is a GLP-1 and a GIP like tirzepatide, but then has glucagon in it as well. So we got three drugs. They're in their phase three trial for adults. So if you look around the effectiveness,
That's the phase three trial so far that we've seen the most effective intervention, weight loss treatment drug. I, so I don't, I think, I don't know, I think we're expecting it in 2027. That will be for adults. So when it comes out for kids is probably quite a while.
But yes, I've heard a lot of excitement. There's some other ones on here. There's some more oral options coming out. There's some that are like a combo of an injectable and oral. There's a once monthly drug on here. So there's a whole bunch of drugs in the pipeline. If you look at all of them, all those effectiveness are above 10%, which that's what QSMIA is. So
We've got a lot on the in the future, which at least for children, hopefully makes the ones we're currently offering more affordable, like while these new ones come out. But there is a lot on the horizon in this, which is exciting that we have actually effective things to offer for this condition that we've kind of struggled to treat in the past.



Sutter, Deena E 59:00
Okay, and then real briefly, and a couple questions about accessing genetic testing

for obesity, and also online questionnaires about obesity, if you have any recommendations on that.

Sarah Ditch 59:13
For the genetic testing, so the only one I'm offering in my clinic, because I'm not a geneticist or an endocrinologist, and I really don't see them until they're older, since I do adolescence is the one I showed you. But endocrine definitely, the endocrinologists in our practice, they definitely refer, if you're really thinking about it, there's more extended testing to do to find these drugs.
or define these conditions. The testing is covered by insurance as variable. So the genetic testing is expensive. So if it's not picked up on the free test, it's just a variable of whether further genetic testing will be picked up. But that definitely is an opportunity. And then online questionnaires for obesity,
100% sure what we're referring to for that, like for like screening for it or I'm not sure.


Sutter, Deena E 1:00:04
Yeah, I, I'm not entirely sure. Wait, maybe some questions about, you know, history, diet, that kind of thing, like just a like a like a like a developmental screening. I don't know.

Sarah Ditch 1:00:16
Yeah, so I have, yeah, I definitely have, I get that history. My patients also see a dietitian, so I really get to focus on my section to really focus on the medication. But for the, I tell them the comprehensive care is still important. The exercise is still important. The diet changes is still important. So


Sutter, Deena E 1:00:29
Yeah.
Yeah.

Sarah Ditch 1:00:36
All that doesn't go away because we prescribe medicine.


Sutter, Deena E 1:00:40

Yeah, and then there was another question about if you have an office based dietitian or you just refer them to somebody else.

Sarah Ditch 1:00:46
Both. So I have one that they can see back with me, which is great to not miss school, but a lot of them either are interested. If they're not interested, I still see them. I don't require it, but I highly recommend it.



Sutter, Deena E 1:00:48
Okay, great.
Right. Okay. All right. Well, I really appreciate your time. That was a great talk. Thank you so much, Dr. Ditch. And everybody, go ahead and claim your CME with a code in the chat, and then we'll wrap up and go to, and you're getting claps, which is awesome. Emoji claps. And we'll go ahead and go to faculty meeting now.

Sarah Ditch 1:01:15
Thank you, guys.



Sutter, Deena E 1:01:17
Thanks, Sarah.

Sarah Ditch 1:01:19
Have a good day.



Lynch, Jane L 1:01:20
Thank you.



Sutter, Deena E 1:01:21
Thai.

Calderon, Delia stopped transcription