[MUSIC PLAYING]

PRIYA GOPALAN: I am someone who has been very passionate about teleservices. I'm going to talk about them a little bit today. So I titled my talk "Perinatal Psychiatry, Updates for the OB-GYN in a Rapidly Evolving Field" mainly because I'm not very creative with titles. But I do want to make a note that I am not just going to be talking about updates. And in some ways, as much as we're going to be talking about recent evidence-based changes,

I'm also going to be going back to the basics. And as Dr. Gozman says, I've been here for 10 years. And a lot of the things that I'm going to touch upon, including some of the services that are available for perinatal mood and anxiety disorders are a real partnership between Western Psychiatric Hospital and Magee Women's Hospital. And we've been very fortunate to be able to partner together and create some really great clinical opportunities for women who are suffering from perinatal mood and anxiety disorders among other conditions.

So I thought the format that I've chosen to take today is to use a case-based kind of scenario. It's a bread-and-butter case. It's not going to be anything that's too unfamiliar to those of you working in your offices and in the hospital. So Ms. A is a 28-year-old female GTP1 who presents to your office to establish care after a positive pregnancy test. She presents to you at approximately 10 weeks gestation, so she's fairly early on.

She reports to you that this was an unplanned, wanted pregnancy and that she has limited supports. Ms. A has no significant past medical history. But she does have a psychiatric history that is significant. It's significant for postpartum depression after her last pregnancy. And she also has had other depressive episodes, in particular, one during her teenage years. She denies any use of alcohol, cocaine, heroin, marijuana. She does smoke cigarettes, about a half a pack per day.

She tells you that she works as an administrative assistant and that there are some pretty significant financial stressors at home. And additionally, she has concerns that her partner will not be supportive of her pregnancy, and she has not yet told him about it. When asked about her mood, though, she tells you that she's really not feeling all that depressed or anxious right now.

So we're not going to actually unmute or anything like that. And I don't have access to the chat. So I just want you all to think in your head, if someone like this walks into your office, what kind of screening is actually recommended for Ms. A? So as you kind of--

FEMALE SPEAKER: Hey, Priya, you got muted. Hold on one second while we fix it.

PRIYA GOPALAN: Do you know when I was muted, Gabby?

FEMALE SPEAKER: It's probably been two sentences.

PRIYA GOPALAN: OK. So I was just saying that because of the virtual format and because I don't have access to the chat, I want you all to just think about this question of what kind of screening you would do as opposed to actually saying it out loud or typing it in since I can't see it. But I do want you to consider if this was someone who was coming to your office, what kind of screening you would recommend to her.

And I had to dig into Google. And I have to tell you a funny story about this. So I pulled the ACOG Committee opinion open. And it had these highlights on it. Then I assumed that I had just grabbed a bad screengrab image and thought that it was just someone's notes.

But no. As it turns out, this is a committee opinion that came out in May of 2015, but it was updated in November of 2018, and the highlights actually reflect this. And it's titled "Screening For Perinatal Depression," and this is something that I think is worth noting. The field of perinatal psychiatry has shifted quite a bit from talking about just the postpartum period and really thinking about postpartum depression to really expanding that to think about perinatal depression as a whole, both during pregnancy and in the postpartum period.

So I'm going to actually ask you to ignore the highlights for the moment and turn your attention to a couple of things that are listed here. So ACOG actually recommends screening patients at least once during the perinatal period for depression and anxiety using a validated screening tool. But they also recommend a complete and full assessment of mood and emotional well-being at the postpartum visit.

And if a patient was screened for depression and anxiety during pregnancy, that additional screening should then occur during that postpartum visit. And they're noting in this update that there's actually evidence that screening alone can have clinical benefits. Although they say that, obviously, there's nothing that beats initiating treatment and getting people referred to mental health care. So I thought this was important for you all to know as we think about Ms. A.

So when you screen Ms. A using validated tools, she screens negative for both depression and anxiety based on the EPDS and the GAD-7, both validated and standardized screening tools. So I want you, again, to consider what you're going to recommend to her at this stage. So you have someone with a fair number of risk factors, concerning factors in terms of her psychiatric history who is coming to you and telling you, I

Have a lot of stressors. I have this history, and at the same time, I'm not really depressed or anxious right now. So I want you to think about what you would do if she were sitting in front of you and what you would recommend to her in this particular scenario. And as you ponder this question, I'm actually going to put up a little bit of information for you on the US Preventive Services Task force recommendation statement that came out in *JAMA* and was published in *JAMA* in 2019.

So it's titled "Interventions to Prevent Perinatal Depression." And I'm going to say that again. So here, we're talking about prevention-- interventions to prevent perinatal depression and, again, highlighting that we're moving away from this construct of just thinking about postpartum depression. And what this publication outlined was a review of about 50 studies, where they pulled out 20 that were related to counseling interventions.

And of these counseling interventions, the median time for the intervention was about eight weeks with about 12 hours of contact time. And based on their review of these counseling interventions, what they actually recommended was that for pregnant and postpartum women who are at increased risk of perinatal depression, that they be referred to counseling services. And they gave this a grade B recommendation.

And for those of you who are not familiar with what that means, a grade B recommendation for the US Preventive Services Task Force means that they recommend the service, and there is a high certainty that the net benefit is moderate or a moderate certainty that the net benefit is moderate to substantial. So this is a pretty high recommendation from them to not just screen, not to treat-- we're not talking about management.

But we're talking about prevention by getting people into counseling. And we'll put aside the question for the moment as to how easy it is to get people engaged into care and to find these services. But I think this is a pretty massive shift in our field to take an approach that is a little bit more preventive in nature.

Thankfully, we do know what a lot of the risk factors are for both depression and pregnancy, which I've labeled here-- well, which, I've stolen this slide from a friend of mine-- which is labeled as perinatal depression here and risk factors for postpartum depression. And some of you may have seen me put up this slide before.

But these are risk factors that are fairly intuitive. So risk factors for depression and pregnancy include things like depression and anxiety, life stressors, lack of social supports-- a lot of the things that we are hearing about with our Ms. A in our case here but things like lower income, single status, poor relationship quality, intimate partner violence, things like that. Risk factors for postpartum depression are also fairly intuitive-- so depression during pregnancy, anxiety during pregnancy, life stressors, again, things that we could intuit.

But also, things that maybe we don't think about quite as much-- so things like a traumatic birth experience, baby who's born preterm, a NICU admission. A NICU admission actually doubles the risk of postpartum depression. Low levels of social support, but also things like breastfeeding problems, a history of depression.

So we are actually able to identify what some of the risk factors are in terms of development of depressive disorders, at least, during pregnancy and postpartum period. And I just want to remind people of why we care about this so much. This is such a common thing that women experience. So one in seven women who give birth experience postpartum depression.

Again, I mentioned there are populations where that risk doubles, like if your mom has the baby in the NICU. But the World Health Organization says one in five-- one in five women have any kind of perinatal mental health condition. So forgive my cheesy graphic here that I doctored. But this is a huge number. This is a big issue.

And this number is actually reflected in many ways in the recent data that is emerging from the MMRCs that are being conducted across the country. So this is on the CDC website from their Report from Nine MMRCs. And you can see that mental health conditions is actually in the top 10 here for leading underlying causes of pregnancy-related deaths. So this is horrifying for me as a psychiatrist and as a perinatal psychiatrist.

It is also even more horrifying because a lot of these conditions, in fact, most of these conditions are preventable by nature of what they are. So it's something to really call attention to and pay attention to as you talk to your patients. So based on this information, you refer Ms. A to a perinatal psychiatry clinic for counseling interventions due to her psychiatric risk factors. So you're taking this preventive approach to care.

As you're wrapping up the visit, however, as it always goes in those last few minutes, she mentions that she had actually been on fluoxetine 40 milligrams daily prior to pregnancy and actually into the early part of her pregnancy but stopped it two weeks ago due to concerns around medication use in pregnancy. So I want you to think about what your next steps would be in this scenario. And this time, I'm going to give you a few options.

So are you going to agree with her that medication use in pregnancy is not safe and ask her to discontinue the medicine? Are you going to wait and see if therapy alone is sufficient? Are you going to restart the medication but maybe keep it at a lower dose and keep her there for the duration of her pregnancy if you can, splitting the difference-- keeping her at a lower dose to minimize exposure but maybe getting her back on the medication.

And remember, we said that she was asymptomatic at this time. Are you going to encourage her to restart her antidepressants? So I'm going to give you just a moment to think through these options and think about what you might do. And I will tell you what I would recommend.

So in this scenario, I would encourage you to have her restart her antidepressant. And I've included this particular slide in here because I think a lot of times, we encounter this scenario. And I can't tell you how many times I get consulted in the postpartum period for women who've stop their medications in the early part of their pregnancy.

And a lot of times, it's either easier to just go along with it, or patients have a lot of misinformation and have stopped their medications for various reasons, and there just isn't time to go through all the options. When, in reality, the right kind of option the correct thing to do is to actually be maybe a little bit more open about the need to restart and have that discussion with your patients.

So I want to present some data to tell you why I think that is important. So this came out in 2006. This is just the one that had the nicest graphic. There are a couple of studies that follow this same trajectory. But basically, just to orient you to this graph, the x-axis is gestation starting from 0 going to 36. And the y-axis is the proportion of women without a relapse or recurrence of their depressive symptoms.

That top line, the solid line at the top there are the women who maintain their medication. So even though they aren't exactly like 100% in terms of not having symptom recurrence, they are at least doing better than the other two groups here. The very, very bottom line are the group of women who discontinued their medications. And that particular group-- the women who discontinued-- had a five times increased risk of relapse with their discontinuation. And not only that, the 50% of them had a depressive episode by their second trimester. So not only did they relapse in terms of symptoms, but they also had symptom recurrence fairly early in their pregnancy.

That middle line, though, the middle sort of dashed line is the group that reintroduced medications at some point during their pregnancy when their depressive symptoms recurred. So you can see that they don't actually fare that much better than the discontinued group.

So I think this is another reason to really be careful about the conversations that you have with the moms that you see and to actually say, look, I totally get it-- understand that you stop your medications. But maybe we should think about restarting. And maybe the reason that you're feeling so good right now is actually because you were on these medications up until very recently.

I also want to note that this is a curve that is fairly consistent across medication classes. So you obviously are not necessarily going to be managing or maintaining lithium. But in case someone comes to you early in pregnancy on other classes of medicines, just know that this curve looks fairly similar. This particular one is for lithium. And you can see that if you maintain your lithium medication, women tend to do better than when they discontinue treatment.

Why do we care? So we care for a lot of different reasons, right? But untreated depression, in and of itself, has a lot of risks that go along with it. So things like-- and this is not, by any means, a comprehensive list, but we know that women who are depressed tend to seek out prenatal care at lower rates than women who are not depressed, have, poor nutritional status, higher rates of maternal obesity, higher rates of smoking and drug and alcohol use.

Of course, untreated depression carries with it a risk of suicide, really, across the lifespan. You know, there are studies that implicate untreated depression with decreased birth weight and preterm delivery. But the thing that we are really paying a lot of attention to now is untreated depression is a risk factor, as we said, for postpartum depression. And when that happens, there is a lot of disruption to the mother-baby bonding and attachment process.

And that's something to really pay attention to because it can have a lot of long-term consequences. And this is a study that came out this year in *JAMA Pediatrics* that looked at the association between maternal perinatal depression and anxiety and child and adolescent development. It was a meta analysis. It looked at 191 studies and 195,000 mother-child dyads.

And the sort of conclusion from the meta analysis was that maternal perinatal depression and anxiety was associated with poor offspring development across multiple domains-- so social and emotional, cognitive, language, motor, adaptive behavior and that these findings extended well beyond infancy, well beyond those initial periods where we worry about bonding and attachment all the way into childhood and adolescence. And of course, there are a lot of factors that play into this. But it is just something to bear in mind and keep in mind. These are not benign conditions, right?

You have probably seen me use the slide before probably multiple times over the years. But know that there is no risk-benefit discussion here. This really is a matter of risk-risk. I am not going to go into the risks of medications in my mind, at least with the antidepressants. We really have an abundance of data to show that any potential risks are very minimal if, indeed, they are there at all.

But that we definitely know the risks of untreated illness, and those are the factors that I've talked about already and that I've listed on the right there. And there really is no risk-free option here. And I think that's the way to frame it to the moms that you're talking to, that there is really no risk-free option-- with one big caveat.

So I think when we talk about these risk-risk discussions and the risk of untreated illness, there is a real danger to stigmatizing mental health to inadvertently shaming and guilting moms, like, your depression is what's going to lead to adverse outcomes if you don't take these medications. There are going to be a lot of effects to untreated depression and anxiety. And not that anyone would do this intentionally.

But there's still quite a lot of stigma surrounding mental health. And sometimes, I think the messaging can come across just accidentally very poorly. So I just want to encourage everyone to consider this as an opportunity to talk about with your mothers, an opportunity to promote wellness, to promote good mental health as opposed to focusing on all the bad things that happen. I'm not going to go into the details of a bunch of SSRI studies. I think that would be very boring.

And like I said, I think it would also be overkill, given that we have an abundance of studies now to tell us that SSRIs are very safe to use. I do want to emphasize that we are very limited in the types of studies that are available to us. And almost every study looking at antidepressant use in pregnancy in particular follows a very predictable pattern, where they're comparing moms who are not depressed and not on medications to moms who are depressed and on medications.

And this is really an apples-to-oranges comparison. So unfortunately, these studies really don't take into account this third group of moms. They're not taking into account the depressed mothers who are not on medications, where this would be much more of an apples-to-apples comparison.

So when you're looking at studies on this, I urge you to really pay attention to see if there is anything that the authors are doing to try to account for that third group of moms who are depressed but not on medications. Like I said, the vast majority of them don't do that. They do try to eliminate as many confounders as they can. But at the end of the day, there's always going to be a reason that one group is on the medications and the other group isn't.

So I just caution you to take these studies with a grain of salt. And I'm going to make a really bold statement here and say that in the majority of studies looking at antidepressants and any kind of adverse outcome, that when underlying confounders are truly accounted for, and when you really eliminate that confounding by any indication by looking at that group of moms who are depressed and not on medications, these associations by and large disappear.

I would go as far as saying that almost all studies that I have seen have shown this pattern. But I'm not going to quite take it that far because we don't know what's going to come out, and I haven't reviewed every study in the world. But this is the trends that I have seen over the years of doing this work and looking at this data.

So just to give you an example of this-- and I didn't put a lot of the specific numbers on here, but this was a study that was published this year in *JAMA Psychiatry.* They used a case control format. This got a lot of Medscape press, at least on my Medscape. I don't know if that's just because I'm a psychiatrist. But it was titled "Maternal Use of Specific Antidepressant Medications During Early Pregnancy and the Risk of Selected Birth Defects." Of course, that in and of itself is going to garner a lot of attention.

But when you really looked at the study design, it was a case control format. It was retrospective. It compared babies with birth defects to those without. And then they went retrospectively and interviewed women after delivery to determine if they had actually taken an antidepressant or not.

It was obviously a smaller cohort of women who took the antidepressant out of the overall sample. And they reported that with unadjusted numbers, there was a higher odds ratio of congenital heart defects for some medications with a strong association for venlafaxine.

And this is the headline that made the rounds. But then when you really dug into the study-- and you'll have to take my word for it or go through and read this read this particular article-- most of these associations either reduced significantly or completely disappeared when the confounders were actually appropriately corrected for. So again, this is a pattern that I have seen over, and over, and over again over the last decade in these studies. I just wanted to raise your attention to that.

There are authors who are trying to account for this. So this is an article that came out last year that looked at about 5,400 women. And they looked at the Association of SSRI use and miscarriage or spontaneous abortion. And they said that they were going to look at SSRI active users compared to never users, and that's the term that they used, and found an adjusted hazard ratio of 1.34 with a confidence interval that crossed 1 for women who are on antidepressants compared to not. But then they actually went back, and they looked at this third group called the ever users.

And more and more authors are starting to use this format. So they're looking at the moms who have been on antidepressants at some point within whatever time period they determine but not currently using the antidepressant to see what that group looks like. And in this particular case, when they compared the ever users to the group who were never on an antidepressant, they found an adjusted hazard ratio of 1.45 for a miscarriage or spontaneous abortion.

Again, I'm not going to go into a lot of detail about all of these individual studies because there are just too many of them to review. But I will tell you that a lot of authors are starting to try to account for that third group. And this is just one example of what that might look like.

So Ms. A decides to restart her fluoxetine at 40 milligrams daily. And at your next visit, Ms. A shares with you that her depression has not recurred, but she is experiencing increased anxiety around the COVID-19 pandemic. She wonders if there's a connection between COVID-19 and increased depression or anxiety. She notes that her pregnant friends are similarly struggling. So take a second and think about what you might tell her in terms of COVID-19 and mental health.

And I think, for most of us, this is a no-brainer, right, a little bit intuitive, probably-- not even worth going into a lot of details. But I'm going to put up just a couple of studies that have come out lately that really have emphasized the impact of the pandemic on perinatal mental health. So this came out earlier this year. It was a questionnaire-based study that used the patient health questionnaire with an anxiety, depression scale. 288 women completed it.

And they found that 34% had anxiety symptomatology. 39% had depression symptomatology. And that's particularly notable because these were rates that were much higher than what that same cohort of women had reported pre-pandemic. So about 3% reported pre-pandemic mental health concerns.

So this is just something that is worth, I think, noting. There's a meta analysis that came out more recently that looked at eight studies of over 7,000 women, and did a systematic review of reports on either the EPDS or the State Trait Anxiety Inventory and pulled effect sizes and so on and so forth and found trends towards higher EPDS scores during the pandemic compared to EPDS scores in non-pandemic times, taking that for what it's worth. This was not statistically significant. It was just a trend. But the pooled State Trait Anxiety Inventory scores were significantly higher.

And again, I mentioned anxiety because it is a little bit of a different construct than depression. And I think we tend to sometimes overlook this primarily because anxiety is just so common in the health care field. We are all primed to be a little bit more anxious. It makes us do our job really, really well. It keeps us on our toes and keeps us vigilant for patient care kind of matters.

But it's something to really take note of and screen for. It is, unfortunately, a little bit harder for us to treat as a field in psychiatry. But untreated anxiety has its own risks too. And you'll notice some of these risks are very similar to what I presented before in terms of disruptions to things like prenatal care, and smoking risk, and so on and so forth. But there are also other risks to pay attention to with untreated anxiety.

So we know that there are associations-- well, there pathophysiological associations with higher cortisol levels. But from a straight neonatal and fetal developmental standpoint, we know that this results in disruptions in fetal HPA access development. So this is an issue, right? And anxiety becomes a much, much, much more complicated phenomenon when we think about the effects on the fetus and across generations. So I like this graphic because it was pretty but also captures this a little bit.

So when we're talking about stress and pregnancy, it not only has like the direct effects, but it has intergenerational effects. It has epigenetic effects. It has a lot of neurobiological implications and effects. And that really results in anxiety and stress having the potential to be transmitted across generations, both from a straight genetic and epigenetic standpoint, but also through social environment and learning, but also just very concrete brain changes. So anyway I thought this was a nice image and graphic to illustrate that.

And we talked about poor bonding with depression. And this also carries forward with anxiety as well. So the field has really shifted in the last few years to really pay attention to dyadic therapies. In fact, there's a term coined for this called infant mental health, which sounds probably more pathologizing than it needs to. But it really just speaks to that mother-baby interaction or the parent-baby interaction, in some cases.

And this is a copyrighted image from Circle of Security, but it really kind of illustrates that the parent is really intended to be the secure base, the safe haven who allows children to really explore as they need to, as they develop because that's appropriate for development with appropriate watching over them, and protecting, and giving them that security, and at the same time, being available when they need to come back for comfort, or protection, or whatever it happens to be.

And as you can imagine, anxiety can really disrupt this process quite a lot, especially that supporting of exploration. But if the anxiety leads to other behaviors or things that are less productive or supportive, then sometimes that coming back to you can also become disrupted. So this is a nice image that highlights that but also speaks to the shift in our field to really think about dyadic therapies and the immediate postpartum period, especially but over time to really pay attention to that process.

I put up a slide on benzodiazepines. Benzodiazepines are not first-line treatment of anxiety disorders. Antidepressants, particularly SSRIs and SNRIs are first-line treatments for anxiety disorders as a whole. I put this on here, though, because I know you get asked about it quite a lot. And unfortunately, I don't have anything super conclusive to say about benzos and pregnancy. I do know that for a long time, they were ignored in the literature in terms of adverse outcomes. I can say with a fair amount of confidence, based on that second bullet here, that, very likely, they don't cause any sort of overt malformations.

Back in the '70s, there was data that said that maybe it was associated with things like oral clefs. But we've had studies in recent years that have really not found any consistent associations in terms of congenital malformations in the baby. But a couple of other studies that are a little bit harder to interpret in terms of benzos and pregnancy-- one that came out in 2017 that looked at women.

This was a very small study, probably about 60 to 100 or so in each arm that looked at panic disorder GAD and benzo use and looked at adverse events around the pregnancy and found that only benzos were actually associated with adverse events. And the ones that they were associated with were things like increased risk of respiratory distress in the baby, increased risk of c-section delivery, and so on and so forth.

So take it for what it is. This was a very small sample. Another study that came out last year looked at a registry of women with spontaneous abortion and found that 1.4% of the women who had a spontaneous abortion were exposed to benzos, compared to a smaller number of women who were not with an odds ratio of 1.84. Again, the limitations of this kind of study design, take it for what it is.

The other big change with COVID, other that increased rates of depression, anxiety, and stress is our much more extensive and widespread use of telepsychiatry. So I wanted to take just a moment to note that for you all. In the non-pregnancy literature, there is actually a fair amount of data that shows equivalency in terms of outcomes for management of mental health conditions via telepsychiatry compared to in-person care.

We don't have quite as many studies in pregnant postpartum moms for telepsychiatry interventions, but there are a couple. And the ones that are there have been pretty positive. So there's a meta analysis of eight studies that showed improved depression scores across these studies with outpatient telepsychiatry interventions. There is another one that I put up here because this was pretty recent that looked at telepsychiatry in an integrated care setting-- so where psychiatric care is embedded into a medical outpatient setting and found really high rates of engagement for these moms with telepsychiatry.

And they were tracking prospectively. And they also found the lower ED utilization rates and high breastfeeding rates in depressed moms, they said more than they expected. But this is obviously limited. So we need more studies. Most of the studies here are limited to outpatient settings. We really don't have a lot of data in other areas. So this is an area of the literature that we really do need to expand upon.

OK. So back to our case-- Ms. A calls you at 30 weeks and states that her depression has come back, and she is really worried about postpartum depression. She notes that her first postpartum period with her now three-year-old was very difficult. She had significant challenges with bonding with her newborn, and she wants to do everything that she can to avoid this scenario. So what will you recommend?

I'm going to give you some options here again to think about. So do you continue fluoxetine at 40 milligrams daily? Again, trying to keep the lowest dose possible, minimize exposure to meds as much as possible. Are you going to wait, maybe give it a few more weeks, and see how she does, and then increase her fluoxetine to 60 milligrams?

Are you going to go ahead and increase her fluoxetine to 60 milligrams right away and then reassess her and in two to four weeks to see if she needs any other adjustments. So think about this for a moment. Consider what you would do. Again, remember, she's around 30 weeks.

And I and I will tell you that my recommendation in this scenario would be to increase her fluoxetine. She had an initial response to it. She was doing well. There are pharmacokinetic changes that occur in pregnancy that might be driving some of this, so a dosage adjustment would definitely be indicated. And I put this point up for a couple of reasons.

So we have data, and we have data from pretty recently that tells us that being static during pregnancy, not being dynamic, not considering does changes can actually have detrimental effects. And it can actually result in you under-treating women in terms of depression. Just to give you an example of this, this is a study that came out last year-- a total of 367 women. 38 used antidepressants at the beginning of their pregnancy, but stopped their medication.

And 180 used antidepressants continuously. And out of that 180 who continued, most of them actually stayed put on the same dose. And 46 had a modification in their antidepressant dose. They adjusted for any potential confounders across the groups. And they found that compared to people who had never been on an antidepressant, the group that had stopped their medications, that initial 38 had a six times increased risk of depression in the second half of their pregnancy. So if you stopped your meds, higher risk of depression again. We had kind of seen that already in that other study that I showed you before.

But in the group that continued their medications without dose changes, they were actually at a 4 and 1/2 times higher risk of depression in the second half of pregnancy. So what does this tell us? It tells us that it's really important to really be thoughtful and dynamic and adjust doses. And I will say I, put this up here kind of as a return to basics in some ways, but also, because I see this a fair amount in my own practice for women who stay at the same dose. And they're struggling.

And maybe they got an initial response, but then that dosage was never increased to target any recurrence of symptoms. Sometimes that's what the patients themselves are asking for. Other times, it's hesitation on the part of the person who's taking care of them.

So again, highlighting why this is important, you know, Ms. A, who we're talking about right now, is in her third trimester. Just to orient you to this, the x-axis here is a timeline, so that big spike is that immediate month postpartum right after childbirth. And this is showing you the two years before and the two years after. And the y-axis gives you admissions per month.

And again, this is old data, but the epidemiologic data is pretty consistent over time on this. And you can see that there is a really high risk period in that immediate aftermath of delivery that puts women at risk of postpartum depression. So it's something to just be mindful of. You really do want to optimize women is as much as you possibly can from a depression standpoint moving into the postpartum period.

So Ms. A is admitted for induction of labor at 39 weeks. She reports to you on arrival that her depression has improved with the dose increase of the fluoxetine, but she does have a couple of concerns for you. She asks you about health care disparities with postpartum depression. So what do you tell her? I stole this from one of the UPMC screen savers-- so full disclosure on that one.

But I think this is a really important topic and one that I confess that I didn't really pay attention to until this year. And as I am reading more, I am both horrified by the disparities that we see, but also horrified by how little we know in mental health in terms of these disparities and how much more there is to learn.

So we know that Black mothers are much more likely than White mothers to suffer from perinatal mood and anxiety disorders, such as postpartum depression. We know what the risk factors are. So this slide has a bunch of them that are known, things like lack of access to care, higher risks of complications, lack of social supports, and so on and so forth-- kind of psychosocial variables, like insurance status and financial barriers, but also things like stress, and toxic stress, and environmental stressors, trauma, intergenerational trauma, things that we really have to pay attention to.

And I wanted to point out also that our Black, Brown, and Indigenous patients of color are also just identified at lower rates. They're just not identified in terms of mood and anxiety disorders. And that might, in part, be driven by the fact that our screening tools are not designed for Black and Brown women. That's just not how they were developed. Most of the research on them were done on White women.

So that's just something to keep in the back of your head. And that there is stigma associated with mental health across the population, but this is particularly true for Black and Brown women, particularly because we have data that tells us that CYF disproportionately removes Black children from their homes when compared to White children, even when all other factors are equivalent. So this is just something to know and to keep in the back of your head that these kind of social parameters are kind of at play.

The unfortunate result of that is that Black and Brown women are much less likely than White women to initiate postpartum mental health treatment, and we have data to tell us that. So screen carefully. Be sensitive and culturally appropriate in your approach, obviously. But I think the biggest takeaway from me here is we have a lot to learn as a field on this and educating ourselves is imperative when it comes to these health care disparities. And I will now get off my soapbox on that one.

So Ms. A has a spontaneous vaginal delivery with no complications. When you see her six weeks later in your office, she tells you that since her delivery, she's been having difficulty with low mood, anhedonia, hopelessness. She's had some difficulty with bonding with her baby.

She's stayed on her fluoxetine, continued with her psychotherapy. And she asks you about this brand-new medication that she's heard about called brexanolone. So what do you tell her? And some of you have heard me talk about this before, but I wanted to just very quickly go through a little bit of a review of brexanolone. Because this is a pretty new medication that came out.

So in 2019, the FDA approved it as the first drug for postpartum depression. Brexanolone. Itself is a mechanistically-driven neurosteroid. It was very, very exciting for all of us because it was considered a physiologically based treatment for depression, which is pretty novel for mental health care. And it showed a rapid reduction in symptoms and postpartum women who had moderate to severe MDD.

It is a 60-hour infusion, and it does require hospitalization. The phase 2 studies were super promising with a 12-point separation and HAM-D scores. The larger phase 3 studies showed less of a separation but did find a sustained effect-- up to 30 days, though not always consistently confirmed by secondary instruments.

We are still recommending this medication to certain mothers. There are definite potential benefits for using something that works very quickly, which is that it is a quicker response than SSRIs and therapies oftentimes. We saw that big spike in the postpartum period. So treating a depressive episode may allow for better engagement with longer-term care-- just theoretically.

Again, we don't have the data to tell us this for sure but just intuitively. You know, and, again, if someone has a quicker response, theoretically, they may have a better time bonding and engaging with their baby and returning to their previous level of functioning, theoretically.

So we've developed a process here that includes a phone screening as well as an in-person evaluation. We really would prefer women who have depression onset in their third trimester through six months postpartum with a HAM-D score greater than 20. We'll take care of that part, though. You can just do the referral piece. And we'll figure out if they actually meet criteria.

But I just wanted you to know what the overt exclusions would be and that they can't be on dialysis or have renal failure. They can't be imminently suicidal because then we'd be talking about a very different care plan. No psychosis or mania. We've put a substance use exclusion because brexanolone. is a potent gabaergic. And obviously, they cannot be pregnant, again.

We've done a couple of these infusions. We're actually starting to realize that this really-- we've been referred women who are very treatment refractory for depression in general, who failed a lot of medication trials. This probably is not a medication that was designed for women who are in that cohort.

This is actually probably more designed for women who come to your office as opposed to the ones who are coming to psychiatric offices with really treatment-resistant or severe depression. This is really more meant to capture the bread-and-butter postpartum depression. But this is a brand-new medicine, so we're learning as we go.

There is a black box warning on brexanolone. for excessive sedation and sudden loss of consciousness. This is because 4% of women in the phase 3 trials experienced loss of consciousness. Again, this is probably because of the gabaergic effects. And this is one of the big reasons why patients are admitted to the hospital to monitor. And they are required to be enrolled in a REM system through the drug company.

So other side effects and things that are possible-- headaches, dizziness, somnolence, dry mouth. Know that in the phase 3 trials, about 14% of the placebo group had sedation-related events as well. So just take that with a grain of salt. And when patients come here, just so you can tell your patients what to expect, they will be checked very, very frequently.

The requirement put forth by the FDA is a visual check, but we're actually also doing vital sign checks-- continuous pulse ox, cardiac telemetry. You know, we're playing it safe. And of course, there is a qualifier that if the patient is accompanied by their baby and children, of course, we're talking non-pandemic times that they must be accompanied. And we are monitoring them while they're in the hospital.

We've taken a stance here at this institution that it is actually OK to breastfeed on brexanolone. because the relative infant dosing is actually very small. And it has very low bioavailability. So we are not discouraging breastfeeding with brexanolone. And this is our protocol that we've developed here that has, so far, been working pretty smoothly.

Actually, the easiest thing for you to do is to just email brexanolone@upmc.edu with the patient's name, medical record number, or date of birth and phone number. And we will take care of the rest of it. We will do prescreening. We'll get them into an appointment at our behavioral health clinic to get the final go ahead for the treatment.

And we will coordinate between our Western Psych outpatient programs and Magee, our hospital-based inpatient programs to get women set up for treatment. And this is really quite an interdisciplinary sort of effort across specialties including social work, nursing, pharmacy, and psychiatry and MFM. So just wanted to put that out there that this is our screening process.

If someone is deemed not to be appropriate, we'll still try to get them set up for services and care if they're not already in psychiatric care. So you know, regardless, you'll have someone sort of laying eyes on your patient. So Ms. A opts for a brexanolone. Infusion and a referral to intensive outpatient programming.

The next time you see her, she notes that she's feeling better and is comfortable with continuing with her plan for therapy and anti-depressants. She mentioned that she has a history of a remote suicide attempt as a teenager, and she's worried about recurrence of her suicidal ideation. She asks you about this. So what do you tell her about suicide and perinatal depression?

So I stole this graphic because nothing I created could ever have really come close to really capturing these key facts and takeaways. So this is from the Maternal Mental Health Leadership Alliance. It comes to my email. I'm not really quite sure how. But I get these emails. And this is really, I thought, very succinctly put.

And the takeaways here are that nearly 20% of women who experience postpartum depression have thoughts of harming themselves. The majority of them the majority of the suicides that occur in the postpartum period actually happen in the late postpartum time frame. And this is actually consistent with what we're seeing with a lot of the MMRC data as well that's being published and that the peak incidence for suicide is around six to nine months postpartum.

So just keep that in mind. Unfortunately, less than 50% of new moms who die by suicide or self-harm attended a postpartum obstetric visit. But more than 50% actually sought help at a hospital or an emergency department within one month of their death. And this is actually fairly consistent with what we see outside of pregnancy as well. So just keep that in mind when you think about your different practice settings.

I'm going to skip over this. But I just wanted to highlight that for some of your moms who have more severe mental health conditions, we actually have quite a lot of treatment options available. This study came out last year, but it looked at other medications that we use for things like bipolar disorder. This one happened to be a very large cohort study looking at Medicaid data across a long period of time, and they looked at a variety of antiepileptics and lithium.

Again, I'm not going to go into a lot of detail for this. But when they did all the adjustments and things like that and looked at moms who are on these medications versus not, they really didn't find any significant issues in terms of adverse outcomes. They found that continuation was not associated with any increased risks compared to discontinuation. And in fact, continuation of these medications were actually associated with a decreased risk of certain outcomes, such as abruption and growth restrictions.

So just to know that even for moms with more severe mental illness, where you may not be the one managing these medications, that it's the messaging at this point, based on the data that we have is that these medications, by and large, are OK to use. And you all know this already. You see this in your patients every single day. This is a complicated clinical picture, oftentimes one that's overlaid with trauma, and substance use, and all kinds of psychosocial factors and to just bear that in mind.

You've seen me of talk about these before, but these are my general rules of thumb. So if someone's on a medication regimen that's worked for her, please continue it. There's no reason not to. The best kind of medication for someone, really, is the one that has been effective for her before if, indeed, that is an option for you and despite lore-- no SSRI has really emerged as being better than any other.

So use whatever is appropriate. Use an effective dose titrate as needed. We try to avoid polypharmacy as a whole. But if you need it, then you need it. There are only one or two medicines to avoid altogether-- valproic acid being one of them. And I put a couple of things here too. Not everyone has bipolar disorder, even though they might tell you that they do. Diagnosis matters. If it's PTSD, then we really do need to promote and push the counseling interventions and to consider all the other factors that go into people's life, and well-being, and wellness, and the things that help them to maintain their own resilience.

Just in the last few minutes here, I wanted to talk a little bit about the services that we do have available here. And again, these have been of partnerships that have developed over the years between Western Psych and Magee. So I wanted to kind of highlight some of them.

And I put down here that I am particularly proud of them because I think we have a combination of really traditional programs and innovative ones. We have a spectrum of services, which is something that was, I think really important for me personally to sort of be able to provide. And we really do try to meet patients where they are and really highlighting coordination and collaboration across these settings.

So we have a lot of programs that meet I think these criteria. So I just wanted to bring your attention to a couple of them. I think a lot of these programs either didn't exist a few years ago or existed in different forms and faces. So I just wanted to emphasize that we have our brick-and-mortar traditional behavioral health clinic down in the basement of this building with the Western Psych psychiatrist, Dr. Moses-Kolko, who you know, Dr. Debrenner, therapists who are well-versed in pregnancy and postpartum mental health.

And then we now have, over the last three, maybe four years now, a mother-baby intensive outpatient program. Pre-pandemic, it was located in Wexford. It had this very beautiful space that was funded in part by the Pars for Postpartum fundraisers that have happened here with the child care space. And we had a lot of really wonderful initiatives happening until the pandemic hit. But the IOP continues on through in a telepsychiatry format-- so no issues there.

We talked about traditional-- and I think this is what we think of in terms of traditional psychiatric care, right? You have the PCP, the pediatrician, the obstetrician, the family internist, whatever who sees patients and then refers out to psychiatrists, or therapists, or what have you. But what I want this group to know is that over the years, we've really started rethinking the way we deliver mental health care to really emphasize taking what you see on the left here with the psychiatrist's office, the counselor's office, and really moving this into a medical space through integrated care or collaborative care.

So we've taken that principle and have actually rolled it out into the obstetric world as well. This is something that we are very excited about. We know that it's a good model of care. It shows good outcomes both in pregnancy and outside of it. We know that it tends to improve people's depression outcomes and so on. It increases show rates for sure. That's based on our own data.

And it really does promote this idea of a medical home and meeting people where they are and where they're comfortable. And in the last few years, we've rolled out therapists across practices. So pre-pandemic, we had three therapists and three physical practices. We've since added a fourth therapist. Everyone is primarily doing virtual visits at this point, which is actually opened up quite a lot of doors for us in terms of getting people into care regardless of their geography.

And most of you are familiar with the OB screening initiative led by Beth Quinn. This has been going on for years. This year, we have really taken a lot of really key steps to link that screening practice to our now pretty extensive network of therapists. We have four across Integrated Care and two at the behavioral health clinic here at Magee.

And now what we do is we link the screening. In Allegheny County, we are linking the positive screens to this network of therapists that we have built. And we do the same for the screening that we're doing in the Magee NICU, which began in 2018 as paper screening, which we are working to roll into an electronic process now. So we have a lot of really cool things happening.

We have a lot of fun things happening. I felt the need to talk about what I do too. So I practice in the medical setting doing consults psychiatry. It is its own subspecialty area in psychiatry with a fellowship program. So we have been partnering with hospitals with labor and delivery units where we were already doing telepsych consults-- Horizon and Northwest-- to now do consultation on the labor and delivery units at these hospitals, which has been super exciting.

And this year, we expanded this to Northwest Hospital and are actually taking a more preventive stance on this and screening everyone who comes in for delivery for risk factors for postpartum depression and actually connecting them to care within our own integrated care in Magee Behavioral Network because we can, and because telepsych allows for it.

So we've really been able to now build on the existing programs that we've had from a telepsych standpoint and most of our outpatient programs, including our dual diagnosis program at CPCDS our Center for Cancer and Counseling Support, which has a women's health arm. We're able to provide care without geographic boundaries for the most part because of telepsychiatry. So really exciting stuff. A lot of really nice and fun things happening.

If you have any questions, please feel free to email me. This is my email. I'm in Outlook. I'm happy to see any of your patients when they come into the hospital across any of these three, really-- or just talk through cases. My cell phone is here. It's also in Outlook if you need it. Feel free to call, or text, or email. If anyone has questions, please let me know.