WEBINAR VIDEO TRANSCRIPT

Opioid Addiction Treatment ECHO

OUD in special populations (adolescents, pregnancy)

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MALE INSTRUCTOR: Ah, wonderful, can everybody see the slides? Thumbs up?

Yay for IT.

MALE INSTRUCTOR: Alright, sweet, jeez. Take it away, Leslie.

Okay, so as I mentioned we are going to be talking about pregnant women and adolescents, so next slide, I have nothing to disclose. Next slide, so, adolescent brain development really continues into the mid-twenties, and it goes from back to front. The first part that forms in the womb is things that control, you know, breathing and eating, and things like that, and the very last part to develop is the pre-frontal cortex which is in charge of impulse control, judgment, sort of projecting into the future, things like that which anyone who has adolescences in the house know that's not always their forte.

And so, adolescence is a time when people are supposed to take risks, and this will allow them to become self-sufficient adults. But unfortunately, a lot of the risks that they take are not necessarily good for them, as we know. And if they're using substances that can cause injury, unsafe sexual activity, and development of substance abuse disorder. Which is fairly common, next slide.

And opiod use in teens less than 18 has actually declined. But even so, teens who do have an opiod use disorder are far less likely to receive treatment than older adults, and I don't have any data for this but my feeling is even if they do receive treatment, they're actually much less likely to receive medication assisted therapy or any evidence-based treatments. And 18-25 year olds still have the very high incidents of opiod use and fatal overdose is a really big problem in that age group.

Next slide, so, things on treating the adolescents, I know in New Mexico, you are allowed to treat the adolescent without the involvement of the parent. I don't know the law across the country. But it is really important to assure them that the carrot they received is confidential. And I actually talk about this with every single one of my patients with the first visit. And I also mentioned that there's times where we will need to break the confidentiality, and in general, one of those exceptions is child abuse, and for adolescents, that includes both if they themselves are being abused, or if they are abusing a child.

And I think it's important that the adolescents know that if they disclose that, you're gonna have to notify CYFD because then they can make the decision whether or not they're willing to disclose. In addition, suicidal or homicidal ideation are the other kind that you have to disclose. And even if you do have to break confidentiality, you need to reveal as little as possible. If the patient is suicidal, and you have concerns, all you need to reveal is what makes you think they're suicidal, you don't have to give their whole medical history away. But if you're concerned about child abuse, you don't have to give away the substance abuse disorder when you report the child abuse.

So, next slide, and again, ideally the parents or caregivers are involved and can give consent. And there are maybe times this is not possible. In general though, it seems to me, very unlikely to be successful if a teen is living with someone who they can't confide in enough to tell them that they may need treatment for a substance abuse disorder. It really just decreases dramatically, the likelihood of success, so again, know your state guidelines. The other thing that I've had when I've been treating teens and young adults, is I have more than once had a parent who thinks that medication assisted therapy treatment is just another addiction, and that they've just conned their doctor into giving them something and flush $500 worth of medications down the toilet, so that's another really big reason you do wanna make sure the parents are involved and understand the treatments, so, next slide.

And American Academy of Pediatrics released the following policy recommendations in 2016. They really want to increase resources to improve access to medications for adolescence with opioid addiction, and pediatricians can consider offering medication treatment to adolescent and young adult patients with severe opioid abuse disorders, or discus referral options. And I just had to put my own little plug in there that this of course also holds true for family physicians, FNPs and PAs who care for children. But, really, this should be an option when you're treating a pediatric patient with an opiod abuse disorders to use medication assisted therapy, next slide.

And harm reduction, harm reduction is really important for anyone we take of with opioid abuse disorder. And really, I think in general almost any medical condition that I take, I start with harm reduction, and you know, you want to make sure they don't hurt themselves, and then eventually, you work towards, you know, ideal control of whatever condition it might be. And harm reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use. It's also a movement for social justice built on a belief and a respect for the rights of people who use drugs. And there's a view in some parts of the community that hard reduction is an enabling strategy. But I have actually found it to be the other way around. That when you're doing harm reduction, you are actually more likely to draw the patient in and get them to take baby steps towards full recovery.

Rather than you're not encouraging them to continue using drugs because often, for so long, we've had this view that it was either you're using drugs or you're completely drug-free, and there was nothing in between, and for many people, taking that step to completely drug-free was just a step that they couldn't fathom taking. But taking some baby steps towards taking better care of their health, even if they continue to use drugs, many people can envision that, and so they were to take these initial baby steps. And then once they took these baby steps, they were willing to take bigger steps towards actually becoming drug-free.

So, the goal is to engage the adolescents and it may mean working into abstinence in the future. You know, I almost always want them abstinence now. But if I can't get them abstinent now, it's at least good to know we've taken steps so they're not as likely to overdose. And not as likely to come in with really nasty abscesses So, and as always, ambivalence is really common. And again, the first thing you wanna make sure is you're discussing a safety plan with the adolescents, and if their family is involved, you want to be discussing safety with their family as well. Next slide.

And again, parents and other caregivers can be key allies in supporting an adolescent, they can also be the worst enemies depending on the family. But adolescents who have involved family do tend to do better than those who don't. And family often need, they say families may need their own support, I really think families do need their own support, there is very little more stressful than loving someone with a substance use disorder, and I think this is doubly true for families who have children with a substance use disorder.

I have a child with asthma, and a couple years ago, she had a real bad time of it where she ended up in the ER four times in two months, and I did not sleep that entire two months. And all I can think is this is what my friends who have kids using heroin go through all the time. I mean, this is just, they're constantly worried about their child's health and their safety. So, we have a really great CRAFT, which stands for, I don't wanna screw this up, Community, Resources, And Family Training Program here in Espanola. And I think there are multiple CRAFT programs throughout the state, it's well worth finding the ones in your community, and referring to them. You also wanna make sure they have information about overdose and they have Narcan rescue kits, next slide.

The adolescents who are using substances are also much more likely to be sexually active, and often sexually active in an unsafe way. They're gonna be at risk both for pregnancy and for sexually transmitted diseases. And again, look up your state law on this. And understand about confidentiality. And you should be asking any adolescents about their sexual activity, offering contraception, sexually transmitted infection testing and information on how to access emergency contraception if needed. And I also think we should be talking to them about safe sex and condoms as well, next slide. So, things you wanna do if you're treating adolescents again, assurance of confidentiality, signed releases to talk to parents and caregivers, and it depends on the situation. And how comfortable the adolescent is with it.

If the adolescent wants absolutely nothing to go to the parents, I think you need to respect that. Sometimes it can be helpful, though, if the parents are involved and can get some information. Again, having the family involved, including the access to Narcan, treatment agreement, you always want, including how the medication is to be taken and stored, adolescents not uncommonly have younger siblings living in the home and you wanna make sure they're not gonna have access to it. Again, plan for contraception and screening sexually transmitted infection labs.

And the other that I find with adolescents is often many of them do not have any friends who are not users. And adolescents is a time when friends are really, really important, far more important than families. And so, getting them a way to connect with friends who are not using is really important. So, be it sports teams, or chess club, or drama, or band, whatever it is, if you can find something that they really enjoy doing, and get them active in it, I think that makes a big deal of difference in their sobriety

because I have certainly seen many of my patients who have relapse just because they missed hanging out with people, and you know what, I've talked to them about it. They're like, "Oh, I'm fine being at home with my mother." And it's like, they're really not. They really need to find a way to connect with other people.

So, next slide, and these are just some references on adolescents, next slide, and some more resources on families and harm reduction. And then pregnancy, we're gonna talk about women, opioid use disorder and pregnancy. And the various treatments in pregnancy. Intra-partum care and postpartum care, next slide. So, opioid use is actually going up far faster among women than it is among men. This is especially true for bad consequences related to opioid use, opioid-related overdose deaths increased 400% among women and 276% among men between 2004 and 2010.

Prescription opioids are actually the only drug that women are more likely to abuse than men. In 2015, 1.2 million women initiated prescription opioid misuse and 0.9 million men, and there are still more men than women who use heroin but heroin use is increasing twice as fast among women as men. And 50% of new heroin people who start using heroin are women, which was certainly not the case 20 years ago when it was much more likely to be men, next slide.

And then nearly 50% of pregnant substance use disorder treatment admissions are for opioids. I know in New Mexico, I would say at this point, about 90% of the substance use disorder patients that I see while pregnant are for opioids. What is everybody else saying around this? Anybody?

[Woman In Audience] I would say, for people treated, I would say it's probably true. I mean, marijuana is still much more common in the pregnant population but most of them aren't being treated for.

LESLIE: Yeah, and I know most of my pregnant women who are using marijuana wouldn't necessarily diagnose with a marijuana use disorder. They're using it intermittently, or fairly common that I see it used for morning sickness. And it is actually a fairly effective treatment for morning sickness. So, I had one patient who stopped smoking marijuana and in the following week, she had such bad morning sickness she lost six pounds and the perinatologist who was co-managing her, called me and said, "I think we need to tell her to start smoking marijuana "again, I've never made this recommendation before." And I was, "I haven't either but."

So, overdose mortality has surpassed hemorrhage, pre-eclampsia and sepsis as a cause of pregnancy-associated death, this is from a Maryland study. But there was also a study in Colorado last year and what they found was 15% of their pregnancy associated death was related to overdose, and 15% is related to suicide. Both of these taking place postpartum because pregnancy associated death includes anything in the year, postpartum. And, I looked this up before I did this and now I've forgotten again, and I believe pregnancy associated death means it happens during the time their pregnant, or within a year afterwards. Pregnancy related, I believe, it was caused by the pregnancy but I may be getting that backwards.

But anyway, there's that distinction of whether it's caused, you know, definitely caused by the pregnancy are just sort of associated with it. And they said only one of the six overdosed deaths was definitely caused by the pregnancy. But I would say it's probably most of them because what happens is that pregnant women are actually very likely to stop using. And then they resume using when they are no longer pregnant, and because of that, their receptors are down-regulated. And their much more likely to overdose, so, next slide.

Among pregnant opioid abuse in women, 86% report that their pregnancy was unintended. Whereas generally, in the general population, a third to half are unintended. And again, pregnancy can be a really powerful catalyst for women to engage in treatment. Even without treatment, 50% of women will stop using during pregnancy. And adolescents who are pregnant report the highest illicit substance use in the prior month which is not surprising, a lot of the same things that cause adolescents to use substances are the same things that cause them to have sex at an early age and these include adverse childhood events, and risk-taking behavior.

As women get older, they tend to be less likely to use substances, and they also tend to use less as they get closer to delivery. And so, substance use decreases with increasing gestational age, next slide. And so, here's just implications of pregnancy on substance use, and as you'll see, the pregnant is the pink and non-pregnant is the blue. From 15 to 25, half of all women who are using substances have quit during pregnancy, and from 26-44, which has lower rates overall, three-fourths of them have quit. And this is also true across all ethnic groups, next slide.

But the problem is that women relapse postpartum. And all of these slide are not, they're just looking at general population samples. They aren't necessarily looking at people who have been treated, I'd like to think that the rates of relapse post-partum are lower in women who are in a treatment program. I have been unable to find any data to that effect. But as you'll see, the women who stopped using during pregnancy, about two-thirds to three-fourths have resumed using after the pregnancy. And this is why it's so important to identify these women during pregnancy because while we may have some catastrophic outcomes during pregnancy, which will obviously have a huge effect on baby.

But overall for drug use, alcohol use can cause significant birth defects but for most drug use, if you don't have a catastrophic event during pregnancy, I think the effect of using drugs during pregnancy is far less than the effect of the mother using drugs from 0 to 18, so a mother who's using drugs as the baby is growing up is gonna have a huge effect on that child, and so we really wanna identify them, and so we can get them into treatment. Hopefully have them be drug-free while raising their child. Next slide.

Medically assisted withdrawal, this is not recommended. There's a lot of people who really think, you know, we should be getting everybody off drugs. And it just, it's been found to be inferior in effectiveness over pharmacotherapy with opioid agonists. It increases the risk of relapse, there's really no fetal or maternal benefit, people think, oh, well, if we get them off then the baby's less likely to go into withdrawal at birth, and at this point, about 50% of neonatal opioid withdrawal is due to opioid agonists, either buprenorphine or methadone.

But if you ween women off, you don't decrease the risk just because there is such a high rate of relapse that the babies are actually more likely to withdraw if you ween them off of opioid agonists. There is an increased rate of relapse. There's also associated overdose mortality if you detox them, and they found an increased access to opioid agonist treatment was associated with deduction in heroin overdose deaths. So, and putting them on pharmacotherapy increases the treatment and retention, increases the number of prenatal visits they go to. And it increases the number of in-hospital deliveries.

For some reason, my community last year towards the end of the year, just a had a slew, I think we had four women who either didn't realize they were in labor, or their labor was just so quick that they delivered at home. And all of those babies had trouble from it, so, next slide. And again, medically assisted withdrawal, there are some studies that have shown it can be done with low risk of fetal mortality. But they're only looking at mortality. Fetal monitoring only shows life-threatening distress. So you're not gonna see sort of the more minor distress. There is an increased rate of epigenetic and growth retardation, and the fetal monitoring doesn't show chronic stress, the chronic stress in utero can actually lead to epigenetic changes which has an increase of a substance use disorder in the fetus, when they grow up to be an adult.

I didn't phrase that very well, it sounds like I'm thinking that the fetus is going to be engaging in alcohol and drug use in utero but when the fetus grows up to be an adult, they're much more likely to have trouble with substance use disorder, next slide.

And there's this huge range of relapse. It's anywhere from 17 to 96% and I try and think if we were treating, you know, diabetes and pregnancy, and somebody said, "Great, I've come up with this protocol. "I can get everybody off insulin." I'd say, "Terrific, how are their sugars afterwards?" Well, 96% of them have high sugars. None of us would ever consider doing something like this so I don't understand why people even look at weening people off. The relapse rate is much lower on medication-assisted therapy, next slide. For many years, methadone has been the gold standard. It's pregnancy category C, neither one of these medications are actually FDA approved to use in pregnancy. But they've been used and have plenty of experience.

Biggest problem with methadone is the dosing flexibility. During pregnancy, you really wanna do split dosing. And I think I have a study coming up on why this is the case. There's increased clearance and later, gestation. And babies will just do much, much better if you do the split dosing. Methadone can cause a prolonged QT syndrome, so you need a baseline EKG, and dosing changes, you always need an EKG, you also need to be cautious with medications that can cause QT prolongation.

The two that I use the most commonly in pregnancy would be citalopram and ondansetron, so you do wanna think about that, many patients who are on methadone. And methadone babies may have lower birth rates compared to buprenorphine exposed newborns. Buprenorphine is pretty much becoming first line treatment for opioid use disorder and pregnancy. And I'll go through a little bit of why that is. And there's also pregnancy category C. When compared to methadone, there's a lower pre-term delivery rate, higher birth weight, and larger head circumference, and you can do split dosing and treatment retention may favor buprenorphine over methadone, next slide.

So, in 2010, there was this landmark study by the New England Journal and they put certain group of women on buprenorphine and a certain group on methadone, and then they looked at neonatal abstinence syndrome. And what they found is the group who were on buprenorphine had significantly less neonatal abstinence syndrome over all, those who did develop neonatal absence syndrome required a lot less morphine, they needed 89% less morphine than the neonate's who's moms had taken buprenorphine. They were in the hospital a much shorter time. They spent 43% less time in the hospital. And if they did need treatment with morphine, they needed substantially less fewer days than the babies who's mother had taken methadone.

Interestingly, this 2016 UC-Davis study, I loved this study. And they studied split dosage of methadone for all pregnant women and the reason that you wanna do this, methadone is metabolized by the CYP450 enzyme, and this enzyme is induced during pregnancy. So because of this, you're metabolizing the methadone a lot more rapidly. For non-pregnant women, I believe the half life of methadone is about 36 hours for a pregnant woman. It's about 18 hours but there's incredible variation. And so, for some people, they can be metabolizing so rapidly that, you know, their body is basically out of methadone after about 12 hours. And because of these you get these peaks and troughs.

And it is not so much the use during pregnancy that leads to neonatal abstinence withdrawal, or neonatal opioid withdrawal syndrome. It is recurrent withdrawal so if you're using heroin, you're going into withdrawal four times a day. And it's causing the babies to be more likely to withdraw. So, when women are metabolizing methadone more rapidly, They are putting their baby through withdrawal every single day, buprenorphine doesn't have this problem for two different reasons, one is that buprenorphine has three active metabolites, so even if it is metabolized more rapidly during pregnancy, you've still got the metabolites that are gonna have an affect on the brain, whereas methadone has no active metabolites.

And the second reason is it's very easy for a pregnant woman to split the dose if she's having that issue, and take half in the morning, half in the evening, or even split it three or four times during the day. Whereas it's much harder for pregnant women. So, UC-Davis, they split the dose of methadone for all pregnant women, and they checked methadone levels before dosing in the morning to see what they were, and if they were low, then they would split the dose. And one woman, they ended up splitting it into six doses throughout the day, she was on a total of 410 milligrams of methadone, her baby did not withdrawal.

They had really, really good outcomes from this study, the rate of neonatal abstinence syndrome was much lower than expected, at 29%, next slide. Naltrexone, there is some study around Naltrexone. 25 published human cases, all with normal birth outcome. There's no evidence of teratogenicity. There are no human long-term outcomes or developmental studies, it may be appropriate for select patience. My problem with Naltrexone and pregnancy is you don't wanna start it during pregnancy. Because Naltrexone, as everybody knows, requires that you be without opioids for seven days. And this is just not safe for a pregnant woman. So you don't wanna start Naltrexone in pregnancy.

But if someone is either already on Naltrexone, I think you can leave them on it safely. Or, if someone has a history of opioid use disorder, is really worried they're gonna relapse but has not used recently,

and does not wanna go on opioid replacement therapy, you can consider Naltrexone in that circumstance. So, and the next thing about Naltrexone is you don't have to worry about the neonatal opioid withdrawal with that.

Next slide, you wanna continue methadone and buprenorphine through labor. The pain of labor does not get any better if women are in opioid withdrawal and you continue it. And I always tell women, unless they're very close to delivery, they should take that dose. So, the best way to use, to manage pain during labor for this moment is an epidural. You for sure don't wanna use a partial agonist such as Nubain or Stadol, which are what we used for a long time in the OB world.

We've now switched mostly to fentanyl, in part because of this issue. If you use Stadol and a woman especially who's on methadone, what's gonna happen is the Stadol, it's just a partial agonist, it's gonna go in and bump the methadone, which is a full agonist stop, and you're gonna put them right into withdrawal in the middle of labor. Spinal anesthesia also provides adequate pain control for C sections, so, next slide.

Postpartum, is the patient wishes to avoid use of opioids postpartum, you should figure that one out. Normally, if they've had an uneventful delivery, we just continue the same dose postpartum. Some women will require a dose decrease after delivery. Especially with methadone, you want to be very, very careful if you continue the same dose postpartum. And their metabolism goes down. They can overdose or become quite sedated. Should be individualized and monitored. Postpartum fatigue, the sedation should be anticipated with methadone, if they've had a C section or a traumatic vaginal delivery, you can use opioids at that time. And I think you should if they're having a lot of pain. There's a lot of disagreement.

I have always stopped the buprenorphine and given them opioids for several days. And then we started the buprenorphine. I've never had any problem doing that. I know a lot of other providers continue the buprenorphine and used opiates on top of that. Which doesn't seem to me like it would work but the studies actually show it does work so I'm planning to start trying this to see how it works. But I have not done that yet, anyone out there who's got any experience with that? So, anyway, use as much non-steroidal, and non-opioid pain medications as you can. Tylenol, Ibuprofen, any of these. And again, full opioid agonists for post-operative pain. Next slide. Naltrexone, between 35 and 38 weeks, you should transition them from IM Naltrexone to oral Naltrexone, and then they should not take their Naltrexone during labor so that way, if they do need opioids either during labor or postpartum, you will be able to give them. And then you can resume the IM Naltrexone postpartum.

If they've had opioids, you do need to wait a little bit before starting it, next slide. Breastfeeding, methadone and buprenorphine are both safe for breastfeeding, the American Academy of Pediatrics, American College of OBGYN, and the Academy of Breastfeeding Medicine, also for breastfeeding on opioid pharmacotherapy, I think it's worth looking at the Academy of Breastfeeding Medicine's statement. But they pretty just state that if you have not used within two months of delivery and you're involved in a good recovery program, they feel it is safe to breastfeed.

If women have used within a month of delivery or are not involved in recovery, they do not recommend breastfeeding. And then there's, you know, sort of an in between, so, there's a lot of maternal benefits

specific to opioid use disorder. It increases oxytocin levels with lower stress. It increases maternal-infant bonding. And these both lower the risk of postpartum relapse. In addition I find often, for women who's used drugs, many of the people in her life don't fully trust her. And don't think she's gonna be able to take care of the baby.

Breastfeeding is something she can do that no one else can and it really often gives them a sense of competence, that they can take care of the baby. And I think that's really important. Newborn benefits, definitely babies who are breastfeed require less medication for neonatal opioid withdrawal syndrome. And they also have shorter hospital stays, next slide. All postpartum women should be offered reliable contraception, should be discussed during prenatal care. Set plan prior to hospital discharge. Long-acting reversible contraceptives I think are the way to go for everybody. This is IUDs and next to them, and they should be readily available.