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UNIVERSAL HEPATITIS C SCREENING AMONG PREGNANT PERSONS TO REDUCE STIGMA AND ADVANCE ELIMINATION

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01/18/2022

Universal Hepatitis C Screening among Pregnant Persons to Reduce Stigma and Advance Elimination [video transcript]

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00:46
All right. Thanks so much, Lauren, for the introduction. And thank you for the invitation to be here this afternoon. And thank you to everyone who's here for joining. So today I will be discussing universal Hepatitis C screening and pregnant people to reduce stigma and advanced elimination. These are my disclosures. So for the learning objectives today, the first will be to discuss the guidelines for Hepatitis C and pregnancy with a focus on the New York State Department of Health guidelines, and to convey the rationale for universal Hepatitis C screening and pregnant people. In addition, we'll discuss clinical management of pregnant persons who screen positive for Hepatitis C and pregnancy. We'll review Hepatitis C screening and treatment recommendations for infants born to mothers living with Hepatitis C. And the second half of the presentation will review the connection between Hepatitis C and substance use and pregnant people and understand the stigma and bias associated with Hepatitis C and substance use in pregnant persons and identify methods to work on reducing them. And I'll end by listing the New York state resources that are available for the clinical management of pregnant persons with Hepatitis C and substance use disorders. So to start, I want to bring everyone's attention. And many of you, of course, are very well aware that there's a World Health Organization goal for Hepatitis C elimination by the year 2030. And unfortunately, we are really not getting very close or very far from meeting those goals. And we're getting kind of close to 2030. And, really, the World Health Organization has called for new strategies for working towards Hepatitis C elimination, and among those is really targeting Hepatitis C and pregnant people and an infant. And there are more and more publications and pieces written about the importance of these populations and our Hepatitis C elimination efforts. And we've really seen actually an increase in Hepatitis C in young people, which is very closely tied to opioid use. This is one of the earlier studies that looked at the increase in Hepatitis C diagnoses from 2006 to 2012. You see a lot more red on the map on the right side in 2012. And when the individuals who were diagnosed with Hepatitis C were surveyed, three or four of them had a history of prescription opioid abuse, and 97%, almost all of them initiated drug use before age 20. So this shows that we're seeing more Hepatitis C particularly in young people. When we focus in on women, this is a study that looked specifically at national data and new Hepatitis C cases among women. And we see that starting in around 2012, that new Hepatitis C cases among young women or women of childbearing age, age 15 to 44 surpassed those of older women aged 45 to 64. Again, demonstrating that these new this new Hepatitis C increases are largely affecting young people

and young women among them. In New York State. We've also seen similar data were back in 2005. The new Hepatitis C infections diagnosed for largely in this baby boomer age group and individuals aged 40 to 60. With infections in males being significantly higher than in females and females being in the blue lines here. But then as we move forward across the years, we see in 2012, and then 2015 and 2016, that a new peak of infection among younger people has emerged. And the infections in females are almost as high as those in males. And this is in New York State. But similar data has been published, really across the country as well. Of course, this includes reproductive age women and this younger age group. And we've also now seen multiple studies and reports looking specifically at Hepatitis C in pregnant people. So this is one of the studies that was published last year that looked at all births in the United States from 2009 to 2019. Using data from the National Center for Health Statistics, and found in this Panel A on the right that there was a significant increase from 1.8 to 5.1 per 1000 births of Hepatitis C in pregnant people. And when they looked at different factors associated with those who were diagnosed with Hepatitis C, Hepatitis C was more common in pregnant people who are white, who had less than a four year degree who were on Medicaid health insurance, and who lived in rural settings with lower density of Obstetricians. But clearly, there is a increase overall, nationally, and Hepatitis C, being diagnosed in pregnant people.

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So when we think about these diagnoses, the traditional approach to identifying Hepatitis C in pregnant people in the past was with risk based screening, where the provider, the obstetrician or the whoever is seeing the patient in practice, asks the patient about their risks and then determines whether screening should occur. However, we've seen that the risk based approach to Hepatitis C screening as well as other conditions such as HIV, and Hepatitis B, which we screened for in pregnancy, risk based screening is not very effective, and identifying all people with Hepatitis C. This is one study looking at this, where it was a retrospective study at a large tertiary care center, which, where they specifically looked at the risk based screening approach versus the universal screening approach and the years and subsequent years, and found that, although not surprisingly, there were more there were there was a higher positivity rate and the risk based arms, only 69% of Hepatitis C positives found in the universal screening are met criteria for risk based testing. So the majority of people who were found to screen positive and the universal screening approach would not have met criteria for screening if we had a risk based approach. So demonstrating that risk based screening for Hepatitis C, like other conditions, such as Hepatitis B, HIV and others, really is not effective in identifying all patients and universal screening and pregnancy. In this study, of what identifying additional 31% of women with Hepatitis C, compared to risk based screening, and the study, they also looked at follow up after screening and found that screening is just one piece, as we'll discuss later on. The next and other challenging piece is making sure that those who screened positive are linked to care and have ongoing follow up which we'll discuss later. So there has really been a movement as a result of studies such as these as well as other studies looking at cost effectiveness of universal screening. There has been a movement from risk based screening to universal screening to recommend screening for all pregnant individuals for Hepatitis C. In 2018, the liver society and infectious disease societies made the initial recommend decision that all pregnant women should be tested. Subsequently, the United States Preventive Services Task Force also made the official recommendation that all asymptomatic adults, including

pregnant persons should be screened for Hepatitis C. Subsequently, the CDC also recommended screening for all pregnant people. And in May of 2021, the American College of Obstetricians and Gynecologists ACOG also made the recommendation that Hepatitis C screening should occur in all people in every pregnancy. And the Society for Maternal Fetal Medicine also included the recommendation that all pregnant people should be screened for Hepatitis C. What do the New York State Department of Health guidelines recommend? Well, they also agree and for those of you who are not aware, we do have dedicated a New York State Department of Health guidelines for Hepatitis C, and they can be found on HIV guidelines.org. And they're quite comprehensive and very good, but agree again, that all people should be screened. During pregnancy. Specifically, the recommendation is that clinicians should repeat Hepatitis C screening and all patients who are planning to get pregnant or are currently pregnant, and screening should be repeated with each pregnancy. Furthermore, they also clarify that if patients engage in ongoing high risk behaviors during pregnancy, rescreening during pregnancy, or the postpartum period as appropriate. So that is another important aspect that if individuals continue to have high risk behaviors, that there is potentially a role for screening them again, potentially, later in pregnancy. So to summarize, what is the rationale for universal Hepatitis C screening, so this is from the guidelines. So there are a few specific rationales that are described for universal Hepatitis C screening, and that pertains specifically to New York, New York State and New York City as well. So the first is that in 2017 59%, of all new female cases of Hepatitis C, reported in New York State were among women of childbearing age. So similar to the national data that I showed earlier, that the majority of female cases in New York are occurring in individuals of childbearing age. And addition, another rationale that we'll discuss more is the concern for mother to child Hepatitis C transmission and the importance of screening in order to counsel individuals appropriately about the risk from mother to child transmission. In addition, as I showed in the previous study, and specific to New York as well, that tend to 28% of pregnant individuals with Hepatitis C, would not be identified with risk based screening so your universal screening would identify more people. And identifying Hepatitis C presents an opportunity to ensure Linkage to Care Guide obstetric clinicians on the Maternal and Fetal risks and pregnant people with Hepatitis C, and that universal Hepatitis C screening during pregnancy is cost effective compared to risk based screening. And finally New York state guidelines aligned with the CDC recommendations and therefore universal screening is recommended. And so in November of 2021, dear colleague letter was drafted that the specific purpose of the letter was to inform upset obstetric providers of the CDC and USPS TF recommendations, and to specifically Alert New York State providers that universal Hepatitis C screening among pregnant people during each pregnancy is now recommended, regardless of risk. So, now that we are recommending universal screening for Hepatitis C and all pregnant people, once they screened positive, what is the management approach that we take in people who have Hepatitis C in pregnancy? So first, it's important to counsel on the potential risks associated with having Hepatitis C and pregnancy which we'll go over. Second, important to let people know about At the risk of mother to child transmission, I think some patients may not be aware that this is a virus that that can be vertically transmitted. And it's important for them to be aware of this potential risk. In addition, once someone screens positive, it's very important to discuss the plan for Hepatitis C treatment. Hepatitis C is curable, and we have an excellent medications that work very well. So it is important, and now we are really treating everyone. So we really are hoping to eliminate Hepatitis C by providing cure to

everyone. So it's important once diagnosis is made in pregnancy or otherwise to discuss the plan for Hepatitis C treatments. And finally, really critical to plan have a plan for Linkage to Care post delivery.

15:58
So going through each of these points, the first one was counseling the patient about Hepatitis C associated risks and pregnancy. So what are the risks that we know of that are associated with having Hepatitis C, and pregnancy? There have been several studies looking at this issue, I show a few of those studies. These are, you know, very large studies, including registry studies and meta analysis as well. But that have really tried to look at pregnant people with Hepatitis C, and compare them to a quote unquote control population of people without Hepatitis C and pregnancy to try to determine if there's an association with any kind of adverse pregnancy outcomes. And these large studies have seen a signal towards in association with a few adverse outcomes, including preterm delivery, as well as growth restriction and low birth weight. And most notably, and most significant, is the association seen with cholestasis of pregnancy were close, they said pregnancy is significantly more common in people with Hepatitis C compared to those without the challenge with these studies is that it's hard to really adjust for all the potential other confounding variables that can also be associated with adverse pregnancy outcomes such as, for example, substance use. So we actually tried to do a study to tease out the independent association of Hepatitis C viremia. By comparing outcomes, pregnancy outcomes and people with active viremia Hepatitis C and pregnancy compared to those who are Hepatitis C antibody positive but don't have documented active viremia of pregnancy. And what we saw is that there was significant association, again, with intrahepatic cholestasis of pregnancy, preterm delivery, as well as pregnancy associated hemorrhage. And so I think this shows that having Hepatitis C while pregnant does increase your risk of adverse pregnancy outcomes. And although the mechanisms are not entirely understood, it does appear to be specifically associated with having active viremia as opposed to some of these other confounding factors perhaps. So how do we address the risk in pregnancy? So the smfm Society for maternal fetal medicine has guidance on counseling and management of individuals with Hepatitis C and pregnancy. And these are some of their recommendations. So one is that they suggest that third trimester assessment of fetal growth may be performed, but antenatal testing is not indicated in the setting of Hepatitis C diagnosis alone. And this is related to the association with the impact of Hepatitis C on growth, so there is a kind of a weak recommendation to assess fetal growth. In addition, there's a recommendation that to just screening for viral Hepatitis and patients with a diagnosis of cholestasis of pregnancy at an early gestation gestational age, and this is related to this strong association that we see with cholestasis of pregnancy wherein if someone develops called Over stasis of pregnancy and they have not been screened for viral Hepatitis, you should look for viral Hepatitis as potentially an underlying factor that is increasing their risk of severe or early cholestasis of pregnancy. And then the next discussion point that is important to address with patients is the risk of mother to child transmission or vertical transmission of Hepatitis C. And when speaking with patients that I see, I think it is helpful to share with them, at least what we know about the likelihood that vertical transmission may occur. So this is a study from 2014. It was a large systematic review and meta analysis of multiple studies that looked at the issue of vertical transmission. And they pulled the data from all of these studies and overall identified a risk of vertical transmission of

around 5.8%. And significantly higher risk among HIV coinfected. Women have 10.8%. And these are numbers that I use in practice and speaking with people, I let them know that, you know, vertical transmission of Hepatitis C is not as common as for example of Hepatitis B. But people view these numbers differently. And I say, you know, if I saw 100, women with Hepatitis C, and pregnancy, six of their babies may have Hepatitis C. And I think sharing these numbers is important. And people view these numbers differently. But at least we can convey what we know about the risk. There's also a question of whether there are other predictors other than HIV of risk of transmission. So for Hepatitis B, for example, we have a lot of data that shows us which viral loads there may be a higher risk of transmission. And in our study, where we looked at over 2000 pregnancies in a large cohort in Ontario, we tried to look at maternal Hepatitis C viral loads to see if there's a threshold where mother to child transmission is more common. And what we saw is that below a threshold of 3.5, logs, there really was no transmission, but maternal Hep C RNA of greater than six logs, we did see almost a four fold increase in mother to child transmission. So I think we need more studies and large data sets to look at and to learn more about this, but it would be helpful in counseling patients to convey to them well, you know, you have if you have a low viral load, you may be much less likely to have transmission than someone with a much higher viral load. And can we do anything to prevent mother to child transmission and from an obstetric management point of view? So there have been studies that have looked at different aspects of obstetric management. And overall, there does not appear to be a difference in terms of risk of vertical transmission with mode of delivery. So C section versus vaginal delivery, there is some weak data about potentially increased risk of transmission with prolonged rupture of membranes, or invasive fetal monitoring. And there's no association of Hepatitis C transmission with breastfeeding. And this is a question that patients also ask about, well, if I have Hepatitis C, can I breastfeed? Well, I transmit the virus to my infants. And it's important to counsel individuals that breastfeeding is safe, that there's no increased risk of Hepatitis C transmission having Hepatitis C should not be the reason to choose to not breastfeed. What are the smfm recommendations regarding this? So they suggest that if prenatal diagnostic testing is required, patient should be counseled about the data regarding the risk of vertical transmission, and that the data are reassuring, but limited, so we just don't have that much data to say that prenatal diagnostic testing can increase can potentially increase significant They increase risk of transmission. They also say that we recommend against cesarean delivery solely for the indication of Hepatitis C, because there's really no increased risk of transmission with his Aryan delivery. They also suggest that obstetrical care providers avoid internal fetal monitors and early artificial rupture of membranes when managing labor and patients with Hepatitis C, unless necessary in the course of management, so leaving it up to the providers discretion, but really recommending to avoid if possible. And then finally, we recommend that Hepatitis C status not alter standard breastfeeding counseling and recommendations unless nipples are cracked or bleeding, in which case that perhaps there's a small increase of transmission through contact with maternal blood.

26:02

And then the next question becomes, in terms of mother to child transmission, as well as planning for treatment of someone who is found to have Hepatitis C in pregnancy is whether there is a role for treatment of Hepatitis C, during pregnancy. So I mentioned that one of the central features of counseling, the patients is planning treatment, because we do want to treat

everyone with Hepatitis C if at all possible. But is there a role for initiating treatment during pregnancy. This is an active field of investigation. And there are two sides in terms of whether people think that this should be a practice of offering treatment during pregnancy. The potential benefit of treatment with direct acting antivirals during pregnancy is that ideally, we'll be would be able to achieve maternal cure while an individual is engaged in pregnancy care. obstetric providers are very in tune with the fact that many times after delivery, we lose patients to follow up or patients may even lose health insurance coverage. So if they're right there in front of you, you can cure their Hepatitis C, while they're captive audience and engaged in health care. The other potential benefit is a potential decrease in the risk of vertical transmission if we eradicate the virus during pregnancy than the risk of transmission is significantly decreased, but because it's thought that most of transmission occurs at or around the time of delivery. In addition, of course, there is an opportunity to decrease further community transmission. As we work towards Hepatitis C elimination, we would want to treat the person in front of us in order to lower the community viral load. And finally, potentially, we've discussed that there are adverse pregnancy outcomes associated with having Hepatitis C. So could treating Hepatitis C in pregnancy lower those risks of adverse pregnancy outcomes, such as coolest days of pregnancy. On the other hand, though, many say that we need much more human safety data and that providers would feel much more comfortable treating during pregnancy if there was more human safety data in pregnancy, as well as in breastfeeding. And addition, there's already a good amount of data for treatment in children starting at age three. So some would say that even if vertical transmission occurs, you can just treat the child later. And finally, the questions of cost effectiveness and where that plays a role in terms of choosing to treat during pregnancy. What are the experts saying what are the current guidelines today saying about the treatment of hep C and pregnancy so on the left you see the guidelines from a ASL D which is the liver society and Infectious Disease Society. This is a joint guideline. And what they say is that on the left, that despite the lack of a recommendation, treatment can be considered during pregnancy on an individual basis after patient physician discussion about the potential risks and benefits. So basically says that you can treat and pregnancy after discussion with a patient with joint decision making to determine whether you want to pursue this in pregnancy. On the right you see the recommendations from society for maternal fetal medicine and they specifically say that we recommend that DEA regimens only be initiated in the setting of a clinical trial during pregnancy. So the recommendation is really that if you are to treat and pregnancy, it should be in the setting and kind of a more controlled setting, and clinical trial with a formal consent process. And everything that that entails. What data do we have on DBAs, and pregnancy? Well, we have animal data in terms of safety data in pregnant animals, rabid data, and mice, and rat data. This is publication from 2019, which summarizes the data about some of the DEA regimens that are being used. And overall, in many of these animal studies, exposure to these drugs is very high. So up to 30, times the recommended human dose. And even with those high doses, there were not really any significant adverse effects seen in mice and rats, and a one potential adverse event in a rabid at a very, very high dose. So from what we know, overall, and animals and pregnant animals, it appears to be overall safe, although, of course, very hard to extrapolate from animal data to human data. We also now have a published human trial trial in pregnant people of the use of lead Dipa, sphere sofosbuvir, Vir or Harvoni in pregnant people with Hepatitis C. This was a phase one study that was published and 2020, where nine individuals were treated with the deepest fear sofosbuvir during second and third trimester of

pregnancy. And what was found is that all of them achieved cure, which is not surprising given how effective these medications are. And there were really no significant adverse maternal events, or adverse outcomes in the infant, no infant related adverse events. So this is the first published study, and there are now others ongoing as well. In addition, we went with the liver society, Infectious Disease Society guidelines, and we did start offering treatment of Hepatitis C on a case by case basis to pregnant individuals that we were seeing in our practice. And among the 23 pregnant people with active Hepatitis C, who were referred to us 15 of them agreed to treatments, and there were some barriers with insurance approval and delays to accessing the medication. So in the end, we had seven patients who initiated during pregnancy and eight postpartum of these 15 people 12 actually had documented completion of treatment. But after that, you see that there's a significant drop off and actually showing up to the visit, where cure was to be documented to the SVR 12 visit of the people that did come for the SVR 12 Visit six of seven achieved cure, and one person had to be retreated and then was cured. And I think one of the main learning experiences here was that, again, this aspect of linkage to care and ongoing engagement and care, especially in the postpartum period, where people you know, there's a new baby, lot of different things going on socially in this time, and very, very challenging to make sure that people continue to keep their health as a priority come to their, their visits, and and really complete the follow up needed. In addition, this is as of this year, there's a new registry called the tip Hep C registry, which was established by the CDC and the Coalition for Global Hepatitis elimination. And this is a registry specifically hoping to collect data on treatment or exposure to these antiviral agents in pregnancy. So the hope is that as more people initiate treatment potentially or have exposure to GA's, potentially if they become pregnant while on treatment, we can collect data and then have a More data to guide our future protocols and approaches to treatment.

35:08
And the last point that I'll mention about treatments is that there is now a new multicenter national trial for the use of sofosbuvir velpatasvir. for the treatment of Hepatitis C in pregnancy. This is a phase four multicenter study, with a goal to recruit 100 patients natural nationally, with the treatment of pregnant people during second and third trimester. We here at Mount Sinai are one of the study sites, and they're also sites really across the country in Pittsburgh, Cincinnati, Denver, Utah, as well as in Toronto. So recruitment is underway. So if I, anyone here has patients that are potentially interested in learning more about the study, please feel free to reach out and we're happy to share more details. And then moving to the approach to infants. So what are the Hepatitis C screening recommendations for infants born to mothers living with Hepatitis C, I mentioned that there is a risk of vertical transmission. So what are the recommendations to establish a vertical transmission has occurred. So this is again from the New York state guidelines. And the recommendation is that clinician should refer infants born to mothers with Hepatitis C, to pediatricians with experience in Hepatitis C care, I think that is a bit of a general recommendations, and then they recommend a referral to the national guidelines. And the national guidelines recommend that all children born to mothers with Hepatitis C be tested for Hepatitis C, at 18 months of age, with Hepatitis C antibody, and that's because testing earlier you may be capturing passive transfer of the maternal antibody, and that may not be an accurate reflection of actual transmission. In addition, they say that testing with HCV RNA assays can be considered as earliest two months of age. So I have had some moms who have

expressed an interest in earlier testing because they just want to know sooner, and it can be considered. However, the definitive test to assess for transmission is really at 18 months. And then those who screened positive at 18 months should be tested again at three years to confirm and then potentially referred for treatment. In addition, siblings of children with vertically acquired chronic Hepatitis C should be tested for Hepatitis C, if born from the same mother, I would extend that to any siblings that have not been previously tested. Who have mothers with Hepatitis C should be tested. For example, I had a patient that I saw who was found to have Hepatitis C in pregnancy, she has had a nine year old child and I said, Well has the nine year old ever been tested, and she had said that know that they had not been tested. And so I recommended testing at that time, and that nine year old did test positive. So I would say all children born to mothers with Hepatitis C, if they had not been previously tested, really should be tested. But the challenge with this recommendation is that it is very difficult to make sure that this testing actually occurs particularly at 18 months of age. This is data from Pittsburgh that followed over 1000 Hepatitis C exposed infants and of those infants 30%. were receiving Well, Child Services, meaning they weren't engaged in pediatric care. But among those only 30% Were actually screened for Hepatitis C. So only a third who were actively being followed in the health system were actually being tested. So this is one of the aspects of of Hepatitis C and pregnancy and children that we really need to find ways to improve testing rates among children born to mothers with Hepatitis C. What are the recommendations for treatments so I already mentioned that we do have availability of approval of use of direct acting antiviral For Children as young as at age three, which is great. And, you know, there are some challenges with having a three year old take medication. But overall, the studies have shown that they do have high rates of cure, and really, overall tolerate the treatment well, so it is important to also provide this counseling to pregnant people that if there is transmission to your child, they can be cured, and they can be cured as youngest three years of age. So now, you know, moving on to the last section of our talk today is really focusing on this relationship between Hepatitis C and substance use in women. This is a large meta analysis of 28 studies which looked at people who inject drugs and their rates of Hepatitis C, and found that women who inject drugs were significantly more likely 36% more likely to be anti Hepatitis C positive than men overall. Why might this be the case? Well, women who inject drugs may actually be at higher risk for Hepatitis C due to a number of different reasons, including higher incidence of HIV and injection related risk behaviors. So more sharing of equipment and syringes using injection equipment after the male partners. And in addition, women may be more likely than men to have injection drug using sexual partners and this overlapping sexual and injection partnership can increase the risk associated with injection increased the risk of Hepatitis C. In addition, women may face more stigma and may be less likely to participate in harm reduction services. So it is really crucial and critical to counsel women who are diagnosed with Hepatitis C or who are injecting drugs on harm reduction services and safe injection practices. This is really part of the discussion and someone who may be newly diagnosed perhaps with Hepatitis C in pregnancy. How can we address substance use in pregnant individuals with Hepatitis C. So again, we have really excellent guidelines from New York state. So if a pregnant patient with Hepatitis C has a substance use disorder, the clinician should provide or refer the patient for substance use treatment, including harm reduction services, and there are actually dedicated substance use disorder treatment and pregnant adults guidelines written by Kelly Ramsay, which are dedicated guidelines for substance use disorder treatments in pregnant people. And the goals of

substance use disorder treatment and pregnancy are multifocal. So, you know, and they are different for different patients and their priorities at that time in their lives. So it can include abstaining, abstaining from substance use in pregnancy, or even at least reducing substance use in pregnancy. The goal can be preventing adverse effects of substance use or withdrawal for the pregnant individual and the fetus. Another goal can be just to stay in care while they are pregnant, make sure that they are not lost to follow up. And other goals include reducing high risk behaviors in order to decrease their risk of potentially Hepatitis C or other infections. And another goal is improving their quality of life and other social conditions, particularly at a time when they're going through a lot during their pregnancy. And Hepatitis C diagnosed in pregnancy can prompt discussion of substance use and really encourage the linkage to care not just for their Hepatitis C. But for treatment of their substance use.

44:21

Postpartum Linkage to Care is recommended by all the guidelines. You know, the liver society guidelines say that Hepatitis C infected pregnant women shouldn't be linked to care so that antiviral treatment can be initiated. But they're as I've already mentioned a few times there's a huge challenge to ensure this linkage to care. In particular for people with Hepatitis C, women with Hepatitis C generally experienced longer delays to Hepatitis C treatment than men. African American individuals experience longer delays than non Hispanic whites and And in general, the postpartum period is associated with very high rates of loss follow up not just for Hepatitis C care, but really across the board with chronic medical conditions. This is one recent published study that showed in this retrospective cohort, using Medicaid data from six different states that only 6% of Medicaid enrolled pregnant people with opioid use disorder had postpartum follow up or treatments. And this is 6% of people with diagnosed with Hepatitis C. There's also an important piece of this, which is stigma and bias towards pregnant persons with Hepatitis C, or substance use. So the healthcare setting is the most commonly reported site for people with Hepatitis C to experience stigma. So there are patients that don't want to see care or come to the healthcare setting, because they're concerned about the stigma that they will experience and Hepatitis C diagnosis is associated with the practice of injection drug use, and patients know that and so they may be hesitant to come to health care because of that reason. pregnant people who use substances are at higher risk for being screened for substance use disorder and refer to child welfare services and have their parental rights taken away. And this is another huge concern of pregnant people. And the stigmatized status of substance use among pregnant persons has negative consequences that really can impact the care of the mother and the developing fetus. How does stigma lead to punishment of persons of childbearing age? Well, really, it's a sequence of events where stigma can lead to dehumanization, which then leads to discrimination and prejudice and punishment, which has been selection or imposition of a penalty as retribution for an offense. And on the right here, we have representation of what is the current national landscape of, of viewing substance abuse during pregnancy as a crime. And I encourage, for those of you who haven't gone to this website to visit it, because substance use during pregnancy is a crime is only true in three states in the US. So Tennessee is the only state with a statute that specifically makes it a crime to use drugs while pregnant. In Alabama and South Carolina. high courts have interpreted existing child endangerment and chemical endangerment statutes to allow prosecution of drug use in pregnant women and new mothers. So in New York, there's no specific statute or law. However, when you click on the

next box of where have women been prosecuted for drug use during pregnancy that really has occurred nationally. So yes, it's not an official law, but that there is still potential that it may lead to prosecution. So again, New York state substance use during pregnancy alone does not constitute abuse. Health care workers are not mandated to report substance use during pregnancy delivery or the postpartum period to Child Protective Services. So they are not mandated. And on the right, you see a sequence of how this would look in practice. So, the first is that there may be a finding or suspicion of drug use, and then there would be discussion. You know, as part of the hospital's internal process for documentation, and then there may be a conversation regarding filing. CPS reports if there is concern for the safety of the infants, and then a caseworker is assigned and an investigation can begin. If deemed unsafe, then a court case can be opened. And otherwise, there may be a conditional plan, which may include certain steps that the mother would need to take in order to in order to be able to not have a court case open. So that may include attending a treatment program going to Parent Infant classes, getting medical care, and consenting to unannounced check ins and home visits. And what are the reported barriers to Hepatitis C treatment in pregnant and early parenting persons? Well, this again, this is a study that pulled individuals with substance use. And these are some of the comments that were made that they were concerned about being treated differently, or people looking at them differently. I'm scared of having it what that means, like a lot of people don't realize that a lot of it is just cirrhosis of the liver. alcoholics have cirrhosis of the liver. And that's not the only thing that Hepatitis C causes. I think it's the stigma behind it. So just demonstrating that there's concern about the stigma, and the judgment that comes along with seeking treatment for Hepatitis C and substance use and pregnancy. So how do we address this stigma and biopsy so caregivers should utilize a trauma informed approach that incorporates harm reduction and motivational interviewing with a focus on building trust, enhancing self efficacy and strengthening personal skills. So a lot of it is really about building the relationship with the patient through a trauma informed approach, and incorporation of motivational interviews, we're running a little bit short on time. But all of you will have access to these slides that slide sets. And this is an excellent slide that talks about how the language that we use with our patients matters and makes a huge difference in order to decrease the stigma that patients may feel and using, asking patients what they're going through and forming them in a non judgmental way about potential options for treatment and listening and understanding what they're going. Going through. As well as being very cognizant about the terminology that we use. I've been guilty of this myself saying things like got clean, but that implies that when someone was using drugs, that they are somehow dirty. So rather than that using terminology such as not currently using drugs, pregnant persons acceptability of Alcohol, Tobacco and drug use screening and willingness. So this is just a study about how patients felt about sharing their drug use verbally, as opposed to having like a urine tox screen. And actually, the vast majority found it acceptable, which was a surprising finding in this study. So I think again, emphasizing that speaking to the patient, is perhaps more, as long as we are connecting and getting to know our patients, we can learn about their drug use, and of course, hopefully, link them to treatment. Again, that these resources will be available to you. But there is an online harm reduction toolkit that was put together by the National Harm Reduction Coalition, which contains a lot of very useful information about how to approach harm reduction. In pregnancy specifically, there are sections on quality, perinatal care, harm reduction, navigating the healthcare and legal systems, prenatal care, labor and childbirth considerations and of course, postpartum considerations and very

useful online resources available for all of us to use. And finally, a few additional resources, many of which I have mentioned in the talk, including, of course, the New York state guidelines, HIV guidelines.org, as well as the national guidelines from the liver society ACOG and the treatment guidelines I mentioned, for pregnant and parenting persons. I will end there, though, if there are any questions, hopefully I can address them. Thank you so much.

54:09
Thanks, Dr. Kushner. That was a fantastic presentation. We do have one question from the audience. Lorna is looking for confirmation that it is acceptable to counsel mothers and tell them that an infected child can be cured with treatment.

54:28
Yes, so there I can very much confirm that we have direct acting antiviral agents. So the most common ones that we use that are tangina tipic, meaning work for all types of Hepatitis C infection are sofosbuvir velpatasvir and glecaprevir pibrentasvir. These are the two medications that are really used across the board and both of them are as of 2021 have been approved for use in children. starting at age three, so and the cure rates are very high, really, on the order of around 95% cure rate, perhaps there's some data that cure rates are slightly lower and very young children, and that's probably related more to adherence to all of the doses of the medications as opposed to the efficacy of the medication. But, yes, I think the message is that the children can be cured. I think that still, at least that, you know, the some of the mothers that I speak to, they don't like the idea of transmission occurring. And some, you know, would prefer to prevent transmission, if at all possible. And, you know, I think that's where the discussion of potential treatment during pregnancy enters. On the other hand, those that are not interested in taking additional medications and pregnancy, which is very understandable. The message should be clear that their children as long as they're engaged in care and follow up, can be cured starting at age three.

56:15
What a wonderful message to be able to share with your clients.

56:18
Yes, for sure. I think, you know, mother's biggest concerns are, you know, they're their babies less so their own health and more. So, you know, so most of the questions that I have from people that I see is really about how about my baby will, you know, will they be healthy? Will everything be okay, what if transmission occurs, can they be cured? And, you know, the good news is that, you know, as of the last few years, we have these medications available for even children as young as age three.

56:51
Thanks again, Dr. Kushner, that was our own.

[End Transcript]