



Substance Use Disorders

Opioid Use Disorder

Progressive Case Conference

Companion Self-Study

*This self-study is a companion to the OUD Progressive Case Conference and should be used as required pre-reading

Please read the following before participating in the Perinatal Opioid Use Disorder Progressive Case Conference.

Epidemiology of OUD in pregnancy

- In 2007, 22.8% of women who were enrolled in Medicaid programs in 46 states filled an opioid prescription during pregnancy.
- In a study looking at hospital discharge diagnostic codes, antepartum maternal opioid use increased nearly fivefold from 2000 to 2009.
- Pregnancy-related deaths due to opioid misuse more than doubled between 2007 and 2016, from 4% to 10%.

Risk Factors for OUD in pregnancy

- Rates of substance use during pregnancy do NOT seem to be influenced by race, social class, or age.
- Adverse childhood experiences (ACE): women with 5 or more ACES are 7-10x more likely to engage in illicit drug use, addiction, and IVDU.
- Childhood sexual abuse: women who've experienced any sort of sexual abuse in childhood are 3x more likely than non-abused girls to report drug dependence in adulthood.
- Genetics, in combination with environmental factors, account for 40% to 60% of a person's vulnerability of substance use disorders.
- In women, ovarian steroid hormones, metabolites of progesterone, and negative allosteric modulators of the γ -aminobutyric acid A (GABA-A) receptor, such as dehydroepiandrosterone (DHEA), may influence the effects of drugs and result in an accelerated progression of initiation to dependency known as telescoping.
- Problematic relationships in families with a substance-misusing parent raises concerns about intergenerational transmission of problematic parenting behavior.
- Unsurprisingly given the above RFs for substance use disorder, women with SUDs often also experience other psychiatric co-morbidities such as mood disorders and complex trauma. These then increase the difficulties women may face in recovery.

Validated screening tools for SUD in pregnancy

4P's (Ewing, 1990)

Parents: Did any of your parents have a problem with alcohol or other drug use?

Partner: Does your partner have a problem with alcohol or drug use?

Past: In the past, have you had difficulties in your life because of alcohol or other drugs, including prescription medications?

Present: In the past month have you drunk any alcohol or used other drugs?



NIDA Quick Screen

Step 1. Ask patient about past year drug use

| Quick Screen Question: | Never | Once or Twice | Monthly | Weekly | Daily or Almost Daily |
|--|-------|---------------|---------|--------|-----------------------|
| In the past year, how often have you used the following? | | | | | |
| Alcohol | | | | | |
| <ul style="list-style-type: none"> For men, 5 or more drinks a day For women, 4 or more drinks a day | | | | | |
| Tobacco Products | | | | | |
| Prescription Drugs for Non-Medical Reasons | | | | | |
| Illegal Drugs | | | | | |

Step 2. Begin NIDA-Modified ASSIST

Step 3. Determine risk level

Conduct brief intervention

Step 4. Advise, Assess, Assist and Arrange

National Institute on Drug Abuse. <https://www.drugabuse.gov/publications/resource-guide-screening-drug-use-in-general-medical-settings/nida-quick-screen>

CRAFFT (For Adolescents)

C Have you ever ridden in a CAR driven by someone who was high or had been using alcohol or drugs?

R Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in?

A Do you ever use alcohol or drugs while you are by yourself or ALONE?

F Do you ever FORGET things you did while using alcohol or drugs?

F Do your FAMILY or friends ever tell you that you should cut down on your drinking or drug use?

T Have you ever gotten in TROUBLE while you were using alcohol or drugs?

Center for Adolescent Substance Abuse Research, Children's Hospital Boston. *The CRAFFT screening interview.* Boston (MA): CeSAR; 2009. Available at: http://www.ceasar.org/CRAFFT/pdf/CRAFFT_English.pdf.

Confidentiality rules concerning substance use treatment

- Unauthorized disclosures of patient records relating to substance use treatment is protected under federal laws and regulations found at 42 CFR (Code of Federal Regulations) Part 2. These laws were enacted to encourage individuals with SUD to enter and remain in treatment without fear of reprisal. Part 2 applies specifically to substance use disorder treatment programs, not to general medical settings.
- 42 CFR goes beyond HIPAA (Health Insurance Portability and Accountability Act). It prevents treatment programs from releasing patient SUD information to law enforcement agencies or judicial/administrative bodies without a special court order. Additionally, anyone who receives patient-identifying SUD information through a patient consent or other Part 2 requirements cannot re-disclose this information to anyone else – unless the patient provides written consent to do so, a court order exists, or if an exception to Part 2 regulation applies.
- Exceptions to Part 2 include
 - Medical emergencies, [42 CFR § 2.51](#)
 - Child abuse or neglect reports required by state law, [42 CFR § 2.12\(c\)\(6\)](#)
 - Reporting a patient's crime on program premises or against program personnel, [42 CFR § 2.12\(c\)\(5\)](#)
 - Qualified audit or evaluation of the program, [42 CFR § 2.53](#)
 - Research requests, [42 CFR § 2.52](#)
 - Qualified Service Organization Agreements, [42 CFR § 2.12\(c\)\(4\)](#)
 - Court orders authorizing disclosure and use of the patient record
- For emergency personnel who are treating a pregnant woman in the event of an overdose or other life-threatening situation, Part 2 generally does not apply because these providers do not meet the definition of a Part 2 program (which implies the principal practice of the provider is SUD treatment). However, given the stigma surrounding SUD, it is suggested that emergency personnel ask the patient's permission for



information sharing if the patient has the capacity to make healthcare decisions. If the patient lacks capacity (eg, is unconscious), the provider should share information about the patient with family and close friends only if the provider determines that doing so is in the best interest of the patient.

Source:

<https://lac.org/addiction-confidentiality-42-cfr-part-2-important/>

<https://www.samhsa.gov/about-us/who-we-are/laws-regulations/confidentiality-regulations-faqs>

Comprehensive treatment for perinatal OUD

- Treatment Modalities: Perinatal OUD is best treated with a comprehensive treatment approach that includes prenatal care, pharmacotherapy for OUD, evidence-based behavioral interventions, treatment of co-occurring mental health problems, and addressing psychosocial stressors.
- Treatment Setting: A multi-disciplinary collaborative care model where addiction and prenatal services are integrated or at least co-located is ideal. If this type of treatment center is not available however referral to needed services with close follow-up to ensure that the patient has accessed services is important.
- Treatment Environment: The vast majority of women with substance use have significant histories of trauma, and healthcare providers that are trained in trauma-informed care can create a safe environment for these patients that enhance rapport and engagement in treatment.
- Reporting Requirements: Some states require that the Department of Child and Family Services be notified if a woman is using drugs during pregnancy. In some states it is illegal to use drugs during pregnancy and doing so can result in arrest or removal of child custody. It is important to know your states reporting requirements and laws related to drug use in pregnancy. A helpful resource is: <https://projects.propublica.org/graphics/maternity-drug-policies-by-state>

Behavioral interventions recommended for perinatal OUD

- Psychosocial interventions that have been evaluated for the treatment of perinatal substance use disorders in general include contingency management (CM), motivational interviewing based (MIB) techniques, family therapy, cognitive behavioral therapy (CBT).
- CM and CBT have the greatest evidence base for the treatment of perinatal OUD. CM uses positive reinforcement with incentives to reward pre-determined substance use behaviors such as treatment adherence, drug abstinence etc. MIB is patient-centered counseling that helps patients resolve uncertainty about cessation of drug use and treatment. CBT helps patients recognize the interplay between their thoughts, emotions and behaviors and provides techniques to make thoughts more accurate so that emotions are consistent with an accurate view of reality. Patients also engage in reinforcing and pleasurable activities regularly.
- Contingency management has the greatest evidence base for the reduction of opioid use in pregnant women. However implementation of reinforcements, particularly financial incentives, can be challenging.
- Peer support specialists, recovery coaches and/or 12-step facilitated programs can be helpful in recovery. These organizations are set-up and run by volunteers who are in recovery. It is important to select a 12-step group or peer support specialists or a recovery coach that supports pharmacotherapy for OUD. All women 12-step recovery groups can also be a good environment for women to seek support in their recovery.



Medication for Addiction Treatment (MAT) or Medication for Opioid Use Disorder (MOUD) options during pregnancy

Methadone or Buprenorphine

- Pharmacotherapy for perinatal OUD should be offered to all women and includes Methadone or Buprenorphine (or combined Buprenorphine/Naloxone). Medically supervised withdrawal is not recommended for pregnant women with OUD as it is associated with high rates of return to substance use.
- Both buprenorphine and methadone are FDA approved for the treatment of opioid use disorder and may be used to treat pregnant women. Methadone, a full opioid agonist, has been used in pregnancy since the 1970s and became the standard of care in the late 1990s. Buprenorphine, a partial opioid receptor agonist, now provides an additional treatment option for the treatment of perinatal opioid use disorder.
- A recent Cochrane review of studies comparing the efficacy of methadone versus buprenorphine for the treatment of perinatal opioid use disorder did not conclude that one pharmacotherapy is superior to the other. While there is some evidence to suggest that women receiving methadone were more likely to be retained in treatment and women receiving buprenorphine had a lower risk for preterm birth, and had newborns with greater birth weight, larger head circumference and less severe Newborn Opioid Withdrawal Syndrome, the body of evidence is too small to draw definitive conclusions.
- The selection of methadone versus buprenorphine is largely driven by patient preference, feasibility, and prior treatment response. Clinical guidelines suggest that good candidates for treatment with methadone are those with unsuccessful abstinence from drug use with buprenorphine or those that would benefit from the structure and support of daily-observed therapy at a methadone treatment center.
- Women that are able to adhere to outpatient therapy with less structure are typically good candidates for buprenorphine, which can also be used in intensive outpatient or residential treatment settings. Buprenorphine may be a good first choice for patients that are naïve to pharmacotherapy for OUD and do not have contradictions to this medication, as converting from methadone to buprenorphine can be very difficult and is often unsuccessful.

Buprenorphine or Buprenorphine/Naloxone

- Buprenorphine vs. buprenorphine/naloxone: Historically, pregnant women who had been on buprenorphine/naloxone were transitioned to the buprenorphine-only product for the remainder of pregnancy. Women starting pharmacotherapy for OUD were started on the buprenorphine-only product. The main reason for using the buprenorphine-only product was to protect the fetus from exposure to naloxone and concern for precipitated withdrawal in pregnancy in a woman who injects the combination product.
- Although data is limited, increasing evidence suggests that newborn outcomes are not negatively affected by buprenorphine/naloxone, and therefore the combined product is increasingly being used in pregnancy. The decision to use the combination vs. mono-product is dependent on the benefit vs. risk to the dyad.
- When deciding between buprenorphine and buprenorphine/naloxone, providers and patients will want to consider the limited safety information and/or theoretical risk of fetal exposure to naloxone in pregnancy and weigh these risks against any potential risks with the buprenorphine-only product. Patients and providers may want to consider the potential risk of misuse with the buprenorphine-only product, or potential for pregnant women to be targeted for theft of medication given that it is well known that pregnant women are often prescribed the buprenorphine-only product. The transition back to the combined product in the postpartum period can also prove challenging in terms of determining the best time of transition and difficulties with tolerating a new preparation of medication. It is also important to consider the treatment setting. In intensive outpatient or group settings women may share which medication they are taking and inconsistencies across patients may be perceived as unfair. Either way the risks of buprenorphine vs. buprenorphine/naloxone need to be discussed so that women are making an informed treatment decision about these medications.



Extended Release Injectable Naltrexone and Oral Naltrexone

- There is insufficient information about the maternal efficacy and fetal and newborn safety of extended-release injectable naltrexone during pregnancy. If women choose to discontinue naltrexone injections in pregnancy, they should be offered methadone or buprenorphine.
- Clinical data utilizing oral naltrexone for the treatment for opioid use disorder during pregnancy is available, and overall does not appear to be associated with poor birth outcomes, however interpretation of these data are limited by small sample size, lack of control groups, or minimal control for confounding variables. Further, long-term studies evaluating child development are not available.

Pregnancy-unique considerations in the application of MAT

- Due to the physiological changes in pregnancy, the dose of methadone or buprenorphine will often need to be increased in order to prevent the emergence of withdrawal symptoms or increased cravings. Dose adjustments, including increasing the dose or splitting the dose (e.g., BID-QID), should be individualized based on patient assessment of increased cravings or withdrawal symptoms.
- The dose of Buprenorphine used to treat perinatal OUD is not associated with the likelihood of Newborn Opioid Withdrawal Syndrome (NOWS) or severity of NOWS. There may be a dose-response relationship between dose of methadone and likelihood or severity of NOWS. However, tobacco use is associated with the degree of NOWS the baby may experience and therefore counseling regarding smoking cessation should be included in the overall treatment of women with perinatal OUD and tobacco use.

Shared decision making for discussing OUD with a pregnant patient

- Prior to starting pharmacotherapy or continuing pharmacotherapy for perinatal OUD, patient education should be provided regarding the risks and benefits of each of these medications as well as the risks of medically supervised withdrawal. A shared-decision making tool is available for providers to review with patients that details the maternal, fetal and newborn risks of methadone or buprenorphine and medically assisted withdrawal and provides a structured framework to help assist in making a decision to either start/continue methadone or buprenorphine or undergo medically supervised withdrawal of these medications.
- This shared-decision making tool describes the maternal, fetal and newborn risks associated with the use of methadone and buprenorphine as well as the risk of tapering one of these medications or choosing not to take one of these medications during pregnancy. The tool then provides a section for patients to individualize this decision based on their prior response to these medications, prior history of relapse and patient preference. The tool aims to facilitate informed treatment choices that are in line with women's preferences and values. (Guille, C., Jones, H., Abuhamad A., Brady KT. *Shared-Decision Making Tool for the Treatment of Perinatal Opioid Use Disorder*. 2019. *Psychiatric Research and Clinical Practice- In Advance*.)
- Link to tool in online supplement: https://prcp.psychiatryonline.org/doi/suppl/10.1176/appi.prcp.20180004/suppl_file/appi.prcp.20180004.ds001.pdf
- The majority of women (95%) using this shared-decision making tool with their provider arrived at a treatment decision regarding their medication choice. Women agreed that they were provided with sufficient information, outcome probabilities and decisional guidance in order to make an informed treatment decision. Further women reported that their treatment choice reflected their values and preferences. (Guille, C., Jones, H., Abuhamad A., Brady KT. *Shared-Decision Making Tool for the Treatment of Perinatal Opioid Use Disorder*. 2019. *Psychiatric Research and Clinical Practice- In Advance*.)
- Link to tool Reference: <https://prcp.psychiatryonline.org/doi/pdf/10.1176/appi.prcp.20180004>
- One of the well-known consequences of chronic opioid use is Newborn Opioid Withdrawal Syndrome (NOWS) [also called neonatal abstinence syndrome (NAS)], which is a type of neonatal drug withdrawal syndrome. NOWS can occur after illicit opioid use (eg, heroin) or as an expected outcome from opioid agonist treatment (eg, methadone and buprenorphine).



- NOWS was recently associated with high rates of long-term unemployment and the lack of mental health care providers in the US.
- It is critically important that the risk of NOWS associated with methadone or buprenorphine is not the only risk factor is considered. As the risk of not taking this medication is also associated with high rates of relapse on opioids, which also have a high risk of NOWS. The shared decision tools assists patients and providers in weighing multiple risks for the individuals in a more balanced way.
- This decision aid can be reviewed throughout pregnancy and updated as new information about the patient's treatment and recovery from Opioid Use Disorder becomes available.

Effects of untreated OUD in pregnancy

- For mothers
 - Less likely to receive adequate prenatal care
 - Mothers themselves have increased odds of experiencing cardiac arrest, Cesarean section, and increased length of hospital stay. Intravenous drug users may suffer from skin and soft tissue infections, osteomyelitis, endocarditis, and sepsis. Co-infection with hepatitis B virus, hepatitis C virus, and human immunodeficiency virus is also more likely with injecting drug use.
 - More likely to have psychiatric comorbidities and misuse other substances
 - Mental health problems are frequently comorbid with opioid use and are also a risk factor for opioid misuse. Pregnant women with depressive and anxiety symptoms are 2 times more likely to use opioids, compared to pregnant women without depressive or anxiety symptoms.
 - More likely to suffer from legal ramifications of violence, prostitution, and theft. They have high rates of poverty, intimate partner violence, and physical or sexual abuse.
 - Tobacco use disorder is common among pregnant women with OUD; 88-96% of pregnant women receiving pharmacotherapy for OUD also have a tobacco use disorder.
 - The primary treatment for perinatal smoking cessation and relapse prevention are behavioral interventions such as motivational interviewing or contingency management which have shown modest success in reducing smoking or relapse to tobacco use. Contingency management with financial incentives appears to be the most effective for smoking cessation during pregnancy. **See [Tobacco Self-Study](#) for more information.**
 - Pharmacotherapies for nicotine cessation for non-pregnant populations include Nicotine Replacement Therapy (NRT), bupropion, varenicline and Electronic Nicotine Delivery System (ENDS). No studies to date have examined the efficacy of varenicline or ENDS for pregnant women with nicotine use disorder and only 1 study has examined Bupropion. Eight randomized controlled trials have evaluated NRT for perinatal smoking cessation. Given the lack of efficacy from these studies, NRT it is not routinely recommended for pregnant women with nicotine use disorder. However, women with a history of being able to abstain from tobacco use with NRT may want to consider the use of NRT during pregnancy after carefully weighing the risks of continued nicotine use compared to the use of NRT.
- For children
 - Opioid use in the 1st trimester was statistically significantly associated with conoventricular septal defects (OR, 2.7; 95% CI, 1.1–6.3), atrioventricular septal defects (OR, 2.0; 95% CI, 1.2–3.6), hypoplastic left heart syndrome (OR, 2.4; 95% CI, 1.4–4.1), spina bifida (OR, 2.0; 95% CI, 1.3–3.2), and gastroschisis (OR, 1.8; 95% CI, 1.1–2.9) in infants, although absolute risk remained very low.
 - Their deliveries are more likely to be complicated by intrauterine growth restriction, preterm birth, placental abruption, premature preterm rupture of membranes, oligohydramnios, and stillbirth. Keep in mind that some of these effects may be attributable to tobacco use or other polysubstance use.
 - The baby may be at risk for developing neonatal opioid withdrawal syndrome (NOWS), which is a constellation of withdrawal signs in the neonate including central nervous system dysfunction (e.g., seizures, exaggerated moro reflex, increased muscle tone, irritability), gastrointestinal dysfunction (e.g., vomiting, diarrhea, poor weight gain/feeding), and respiratory dysfunction.



- Children raised in substance-misusing environments are vulnerable to adverse childhood experiences which may be associated with problems such as depression, anxiety, post-traumatic stress disorder (PTSD), behavioral and learning difficulties, and significant attachment problems.

Risk factors for overdose

- Use of highly potent opioids such as fentanyl
- Use of opioids with reduced opioid tolerance (e.g., following detoxification, release from incarceration, cessation of treatment)
- Injection drug use
- Mixing illicit substances (polysubstance abuse)
- Using opioids in combination with other sedating substances such as benzodiazepines
- Using alone (risk factor for lack of rescue)
- A prior history of overdose
- A prior history of suicidality
- Reluctance to call for emergency help (risk factor for lack of rescue)

Symptoms of overdose include:

- Slow or shallow breathing
- Gaspings for air when sleeping or weird snoring
- Pupillary changes (pinpoint pupils)
- Pale or blueish skin
- Slow heartbeat
- Low blood pressure
- Won't wake up or respond to stimuli

- 1 Check to see if they can respond**
- Shake them or call their name
 - Rub your knuckles hard in the middle of their chest ("sternal rub")

- 2 Call 9-1-1**
- Give the address and location
 - If you don't want to mention drugs, say, "Someone has stopped breathing and is unresponsive."

- 3 Give rescue breaths**
- Place the person on their back, head tilted back and chin up
 - Make sure there is nothing in their mouth and pinch their nose closed
 - Breathe two slow breaths into their lungs, making sure the chest rises

- 4 Give naloxone**
- Follow the instructions for the type you have
 - If the person does not respond in 2-5 minutes, give another dose

- 5 Stay until help arrives**
- Continue rescue breathing, one breath every 5 seconds
 - The person may start to overdose again when the naloxone wears off, so it is **very important** to call 911


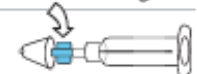



How do I give naloxone?

Narcan® Nasal Spray

This nasal spray needs no assembly and can be sprayed up one nostril by pushing the plunger.



Nasal spray with assembly

- 1** Take off yellow caps. 
- 2** Screw on white cone. 
- 3** Take purple cap off capsule of naloxone. 
- 4** Gently screw capsule of naloxone into barrel of syringe. 
- 5** Insert white cone into nostril; give a short, strong push on end of capsule to spray naloxone into nose: **ONE HALF OF THE CAPSULE INTO EACH NOSTRIL.** 
Push to spray.
- 6** If no reaction in 2-5 minutes, give second dose.

Sources:

https://www.who.int/substance_abuse/information-sheet/en/

<https://www.hri.global/contents/716>



Naloxone is an opioid antagonist that has a high affinity of mu opioid receptors, thereby causing the rapid removal of any drugs bound to these receptors. It can be life-saving in the event of an overdose, and should be administered to anyone suspected of having an opioid-related overdose, including pregnant women.

Intimate partner violence in individuals with OUD

- IPV is highly prevalent among women accessing SUD treatment:
 - 47-90% lifetime (Schneider et al 2009)
 - 67% within the past 6 months (Downs 2001)
- The relationship between IPV and substance misuse is bidirectional, meaning women with OUD are more likely to experience IPV, and women experiencing IPV are also more likely to develop OUD.
- Interestingly, one study found that it is not the women's pattern of use that determined her risk for subsequent IPV, but rather whether her partner had a history of perpetrating IPV).
- Other studies have found that abusive partners may exploit the woman's OUD to enforce control:
 - Introducing woman to drugs or new drugs
 - Forcing or coercing the woman to use
 - Coercing woman to engage in illegal acts (eg, dealing, stealing, prostitution)
 - Using drug history as a threat (eg, deportation, arrest, reporting to DCFS, telling employers, etc)
 - Isolating partner from recovery supports and other resources
 - Sabotaging recovery efforts
 - Blaming abuse on partner's use, with the abusive partner benefiting from negative societal judgment of the substance-using woman

Delivery and postpartum considerations for women with OUD

- Women should receive the same pain management regimes as other women that deliver or have a cesarean section (with the exception of opioid agonist/antagonists like Nubain® or Stadol®). Many hospitals now offer long-lasting local anesthetic blocks to assist with pain as well. Lidocaine patches can be ordered at most pharmacies for hospitals without the option for localized anesthetic blocks. Scheduled ibuprofen and acetaminophen use postpartum also helps decrease opioid requirements. Use of heating pads, abdominal binders, adequate family support, and non-pharmaceuticals should also be strongly considered.
- Shared decision making should be employed when prescribing opioids for this population. For many people with OUD taking an opioid can be a 'trigger' for relapse to drug use. Asking trusted family or friends to hold and dispense this medication may help reduce pain associated with surgery and prevent overuse of this medication.
- It is also important to plan for how and where methadone or buprenorphine will be continued postpartum. If the patient is not taking methadone or buprenorphine during pregnancy, it is important to plan for if and how this medication will be restarted postpartum.
- Breastfeeding should be encouraged among all women who are not actively using substances and do not have HIV. Women who are taking methadone or buprenorphine who are not actively using substances and do not have HIV should also be encouraged to breastfeed. In addition to the benefits of breastfeeding for mother and newborn, breastfeeding has been shown to reduce the need for newborn opioid withdrawal treatment potentially due to skin-to-skin contact.
- Plans to address medical comorbidities that cannot be addressed during pregnancy such as Hepatitis C should be planned for the immediate postpartum period.
- Plans for contraception should also be implemented in the immediate postpartum period. Among women with opioid use disorder, 86% of pregnancies are unplanned.
- Postpartum women benefit from continued engagement in treatment due to elevated risk for overdose or suicide in the postpartum period, a risk that may be mitigated by ongoing treatment and support.



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