Clinical Quicknotes
on Substance Use Disorders

Substance Use Disorders
Center of Excellence

Treating Opioid Use Disorder During Pregnancy and the Post-Partum Period

Author: Mark Hurst, MD LFAPA and Susan Painter, DNP, C-CNS, PMHCNS-BC
Editor: Craig King DNP, APRN, PMHNP-BC
June 2025

Quick Takes

- The crisis continues in the United States (US), with many people experiencing opioid use disorder (OUD), opioid-related disability and death, including pregnant and parenting women.
- Untreated OUD in pregnant women is associated with poor maternal and neonatal outcomes.
- Pregnancy is often a motivator for women with OUD to seek treatment.
- Treatment is associated with improved outcomes for both mother and baby.
- The foundation of OUD treatment in pregnant women is medication for opioid use disorder (MOUD), specifically buprenorphine or methadone, and it is demonstrated to have the largest effect in improving treatment outcomes.
- Treatment with buprenorphine or methadone should be encouraged in all pregnant women with OUD.
- Pregnant and post-partum women with OUD have complex needs. Treatment should be comprehensive and trauma-informed, addressing obstetric, medical, psychiatric, and basic physical needs.
- Pregnant women should routinely be screened for OUD and have rapid access to treatment.

Case History:

Sara, a 23-year-old woman, arrived at the emergency department via EMS after overdosing on opioids in the community. She was given intranasal naloxone from bystanders with little effect but responded well to intramuscular naloxone given by EMS. On arrival, she was awake and alert and breathing without difficulty. A point of service urine drug screen revealed the presence of fentanyl, and a urine pregnancy test was positive.

Opioid use and opioid use disorder (OUD) continue to be major public health issues in Ohio and the United States (US), with devastating effects on individuals, families, and communities. Women of reproductive age are not exempt from experiencing OUD. Over 23,000 women in the US died of unintentional overdose in 2023, with 16,800 of them occurring in women of reproductive age.[1] Additionally, the number of pregnant women with OUD is also appreciable, with 7.67/1000 deliveries screening positive for OUD in 2016, a 71% increase from only 4 years earlier.[2]

These numbers alone stress the importance of identifying and treating OUD in all women, particularly in those who are of reproductive-age or are pregnant. Pregnancy may be a unique opportunity to engage women about OUD, as it may serve as a "change motivator" that influences them to seek treatment previously not considered. Accordingly, routine screening of all pregnant women for OUD and other substance use disorders (SUDs) is an important intervention and potentially life-saving for both mother and child[3,4]

Sara indicated that she had been using fentanyl several times a day. Once aware of her pregnancy one month ago, she changed administration route from injection to inhalation, as she felt it carried lower risk. She was trying to stop on her own but experienced intense drug craving and withdrawal, resulting in fentanyl use to relieve symptoms.

All individuals with OUD face multiple potential consequences, including injection-transmitted infections such as Hepatitis B and C and HIV; sexually transmitted infections (STIs); non-fatal and fatal overdoses; and psychosocial consequences such as homelessness, poverty, and incarceration. Pregnant women with OUD experience these same risks, and they extend to their unborn child. There is high potential for poor outcomes in both, with overdose death of the mother (and therefore, the child) the most severe of these.[3,4] Even non-fatal overdose is a substantial risk as it may result in anoxia that affects both mother and fetus, potentially causing lasting medical issues in both.[5] Untreated OUD is associated with severe maternal morbidity.[6] The risks of opioid withdrawal are substantial and associated with increased risk of multiple complications, including pre-term labor, fetal distress, and fetal demise.[3]

The impact of active OUD during pregnancy goes beyond the effects of opioid use itself. Many pregnant women who have OUD are exposed to other drugs that can have deleterious effects on the pregnancy, including alcohol, tobacco, cannabis, stimulants, sedatives, and drug contaminants such as xylazine.[7,8] Additionally, adequate nutrition is often lacking in the face of active SUD, and prenatal care itself is uncommon.[3,9] These medical and psychosocial factors speak to the importance of comprehensive interventions for pregnant women with OUD to achieve best possible outcomes.[10]

Obstetrics came to see Sara in the emergency department. Her pregnancy was estimated to be in the 16th week per the date of her last menstrual period, and by ultrasound her baby was slightly small for dates. Otherwise, there were no issues noted. Sara was relieved and stated, "I'm tired of this and want to do what is best for both of us." Further history was obtained—she shared that she had occasionally smoked cannabis to relieve nausea, but did not use tobacco, had not used alcohol for over a year, and had not knowingly used other drugs.

Treatment options were discussed, including treatment with buprenorphine or methadone for her OUD. She had been treated with buprenorphine in the distant past with good results but had concerns about its potential impact on her baby. These were addressed, and she consented to treatment with buprenorphine, to relieve her acute withdrawal symptoms initially and then continuing to help her avoid illicit opioids and re-establish a life of recovery. She was admitted to the OB service for induction on buprenorphine, further assessment and stabilization.

The American Society of Addiction Medicine (ASAM) and the American College of Obstetrics and Gynecology (ACOG) have issued guidance that MOUD using either buprenorphine or methadone is the standard of care for pregnant women with OUD.[3,4] Despite this, only about half receive MOUD.[11] Both buprenorphine and methadone are associated with markedly better treatment outcomes vs. no medication, with less obstetric complications,[3] improved retention in treatment, lower relapse rates, reduced overdoses (fatal and non-fatal), decreased all-cause mortality, fewer suicides, and improvement in social circumstances.[4] In the past, buprenorphine mono-product was favored over the buprenorphine/naloxone combination due to concerns about potential effects of naloxone in the developing fetus, but these concerns have proven unfounded. The combination product is as safe and effective the buprenorphine-only product.[12]

Medical withdrawal is NOT recommended during pregnancy due to its association with preterm labor, fetal distress and miscarriage.[3,13] Accordingly, naltrexone is not recommended for use in pregnancy since it requires medical withdrawal and exposes mother and fetus to these risks. Research confirming its safety and efficacy is minimal.[4]

> *"Medically supervised withdrawal is associated with a high rate of return to substance use, putting both the pregnant woman and the fetus at risk. Medically supervised withdrawal should be avoided whenever possible"*
>
> - SAMSHA, 2018

The decision about MOUD should be collaborative between the provider and patient, individualized, and based upon the evidence base and patient preference.[14,15] Various factors enter into the decision, including availability of medication (methadone is not available in some areas, while buprenorphine is widely available), history of treatment, and side effects. The mother should be fully educated the different treatment options, and likely outcomes, benefits, side effects and risks of each one. Likewise, she should be educated about expected outcomes and risks of choosing no MOUD treatment.

Concerns are sometimes raised about the potential impact of MOUD on the developing fetus. Studies have found that there is no increase in birth defects in women treated[16] although there is some association with preterm birth and low birth weight,[17] apparently lower with buprenorphine than methadone. However, both are associated with better outcomes than no MOUD and their potential risk pales in comparison to the risk of untreated MOUD, which too frequently results in overdose, infections and other adverse outcomes. MOUD treatment with buprenorphine or methadone is the standard of care in pregnant women with OUD.[3,4]

Another decisive factor may be the relative risk of the newborn experiencing withdrawal in the days following birth, called Neonatal Abstinence Syndrome (NAS). Any opioid (or other substance) that has induced tolerance—non-medical or medical (including MOUD)—can result in NAS. The risk of NAS is not insignificant, occurring in 52% of buprenorphine-exposed neonates and 69% of methadone exposed infants, though it is less severe and shorter in neonates exposed to buprenorphine.[18] In either case, NAS is more easily managed in neonates exposed to MOUD of known dose than those exposed to opioids in the context of active OUD, especially if other drugs were also being used.[3] Many MOUD-exposed neonates can be managed without medication using approaches such as "rooming in" and breastfeeding,[19,20] although others may also require medication.[21] Affected babies should be referred to as "experiencing NAS" and not "born addicted," a term that is both inaccurate and stigmatizing.

Some women may elect to avoid MOUD during pregnancy, despite the increased risk of relapse, overdose, and worse maternal and fetal outcomes. In this situation, a review of treatment options and exploration of rationale may be helpful, especially asking about any outside pressures from family or even other treatment providers and correcting any inaccuracies that may be influencing her decision. If she persists, her decision should be respected and all other components of prenatal care provided, noting that MOUD can be started later if she chooses.

> *Sara was successfully induced on buprenorphine, experiencing total relief of withdrawal symptoms and cessation of cravings at 16 mg daily. Her lab testing revealed infection with hepatitis C but no other abnormalities. Social service assessment found she was sleeping at various friends' houses with no permanent address, had lost her job as a bookkeeper, had no transportation or health insurance, and was estranged from her family. She had previous outpatient treatment for depression and experienced various forms of abuse both as a child and an adult.*

The initial approach to pregnant women with OUD is ensuring medical, psychiatric, and social stability. This includes assessment and treatment of medical and mental health needs and securing a safe and stable living situation where her needs as an expectant mother can be met.

Trauma histories are common in women with OUD.[22] As such, all treatment environments should be nurturing and trauma-informed.[23] The most common reasons that pregnant women with OUD do not seek treatment or drop-out prematurely are attitudes that are not considerate of trauma and are non-supportive, blaming, and punitive. Diligence must be maintained to deal with these stigmatizing behaviors and intervene if necessary to avoid the deleterious effect on mother and baby.[24] Additionally, pregnant women with OUD also sometimes hesitate to seek both OUD treatment and prenatal care due to fear of child protective service (CPS) intervention. It is essential that all providers are aware of how their local CPS approaches this situation and educate the mother about it during pregnancy.[25]

Arrangements were made for Sara to enter a residential SUD treatment program for women and continue treatment at the hospital's high-risk OB clinic. Treatment of hepatitis C was deferred until after her pregnancy. She did not display serious psychiatric symptoms. Social work enrolled her in Medicaid and WIC (Women, Infants and Children Supplemental Nutrition Program), referred her to classes for expectant mothers, and obtained cab passes from a local non-profit agency to help with transportation to appointments.

She did well in treatment. She participated in group therapy, individual counseling, and 12-step groups. She and her mother reconciled, and her mother indicated that she could stay with her following completion of residential treatment, as long as she continued in treatment and remained sober.

The needs of expectant mothers with OUD are complicated and go well beyond the expected medical complexities. Other life areas need to be evaluated and addressed (Table 1) including shelter, security, nutrition, and access to healthcare. Prompt efforts should be made to resolve these issues as soon as possible and monitor their status throughout pregnancy and the post-partum period to ensure that social stability is maintained.

Table One. Important Areas to Address in Pregnant and Post-Partum Women with Opioid Use Disorder

Medical	SUD and Mental Health	Social
• Obstetric care • Infectious diseases • Nutrition • Pain management • Family Planning Contraceptive counseling • Post-natal care • Newborn care for baby	• MOUD • Counseling needs • Other drug use, including tobacco • Active psychiatric symptoms • Suicidal ideation • Trauma history • Potential for relapse after delivery	• Housing • Transportation • Income/Employment • Healthcare coverage • Support system • Legal issues, if present • Plan of safe care for self/ baby following delivery • Liaison with Child Protective Services, if needed

Sara was released from residential treatment and continued in outpatient SUD treatment, living with her mother as planned. In her last trimester, she began to complain of insomnia, restlessness, anxiety, and drug craving. Buprenorphine was increased to 24 mg with resolution of cravings and most other symptoms, although it was felt that some of them were likely pregnancy-related. The prescriber assured her that an increased dose of MOUD is frequently needed toward the end of pregnancy due to increased metabolism of medication. She attended OB appointments as scheduled and participated in childbirth and parenting classes with her mother. The remainder of her pregnancy was uncomplicated.

Preparation for the birth process and the post-partum period is essential for all pregnant women, and even more so for those with OUD. These mothers need to be ready for the expected challenges and stresses of dealing with a newborn, as well as continuing the activities that support OUD recovery. Additionally, they may have previously used substances to deal with life issues that will invariably face them post-partum, such as fatigue, sleep deprivation, irritability, and depression. Addressing them well in advance of delivery, establishing a plan for coping, and arranging for both emotional and tangible support is essential—including a reliable person to provide "relief" when needed and contacts for others when feeling unsure or overwhelmed.[14] Other preparations like a safe crib, car seat, diapers, and other needed supplies should not be neglected. MOUD dosage adjustment may be necessary during pregnancy and should be individualized based on target symptoms such as craving and withdrawal. This may be due to the physiological changes of pregnancy, environmental triggers for craving, or both. A need to increase dose is more common with methadone than buprenorphine.[4]

There should also be discussion about the importance of continued treatment with MOUD after delivery, informing the mother that stopping MOUD at any point increases the likelihood of relapse and places her and the baby at risk.[14] The risk of MOUD discontinuation in the post-partum period is significant, with one-third to one half of mothers with OUD discontinuing it in the first year following the child's birth and speaking to the importance of addressing and monitoring this.[26,27]

The option of breastfeeding should be discussed, as breastfeeding is generally accepted as nutritionally best for the baby, can minimize symptoms of NAS, and can reduce infant irritability. Both buprenorphine and methadone are considered safe in breastfeeding, as very low amounts are secreted in breast milk.[28]

Sara presented in labor near her due date and delivered a healthy, full-term girl with APGAR scores of 6 and 9. She received an epidural for delivery and did not require any supplemental opioid medication. Her baby had some mild NAS occurring 48 hours after delivery and lasting about 36 hours, which was managed with non-pharmacological treatments. She and her baby left the hospital on the fourth post-partum day and returned to her mother's. Regular in-home nursing visits were arranged and appointments set for the one-week newborn visit, a post-partum OB check, and telehealth addiction counseling for Sara.

Women with OUD should be offered enhanced care in the post-partum period.[3] Reliable friends and relatives can be helpful, with frequent professional assistance and active outreach in the event of missed appointments or increased difficulties. The realities of new parenthood should be considered, understanding that in-person appointments can be inconvenient and contribute to stress rather than relieving it. Telehealth appointments, online group therapy, and home visits by case managers and peer support specialists may be more practical. All contacts with the new mother should ascertain how she is coping, what additional resources are needed and should emphasize importance for continuing SUD treatment, including MOUD.

Sara embraced motherhood and generally did well. She found her mother to be a tremendous support and appreciated the assistance of the visiting nurse over the first few months. On several occasions when she felt overwhelmed, she used cannabis, which stopped when her mother indicated that any further use would lead to her eviction, though the baby could stay. She and her counselor addressed alternative coping strategies. She remained adherent to MOUD and all other aspects of treatment.

Several months after her child was born, her employer reached out and asked her to return to her previous job, which she accepted on a part-time basis. She continues to live with her mother and is beginning to save money for an apartment. She recently told her counselor, "I only have what I have now because I was pregnant. I never would have gotten into treatment without it."

Pregnancy represents a watershed event in lives of most people. In the case of women with OUD, it often provides the motivation to seek treatment and pursue a life of recovery. A comprehensive, empathetic and trauma-informed approach built upon MOUD and OB care along with safe housing, appropriate nutrition, a solid support system, and a source of income can lead to positive outcomes with a better life for the mother and a good start in life for the newborn. Both deserve that opportunity and the best that we have to offer.

> *"Pregnant people with substance use disorders should be encouraged to get the care and support they need — and be able to access it — without fear of going to jail or losing their children. Anything short of that is harmful to individuals living with these disorders and to the health of their future babies."*
>
> - NORA VOLKOW, MD, PHD, Director, National Institute on Drug abuse

For Additional Information on This Topic

- Treatment of Opioid Use Disorder for Pregnant Patients. American Society of Addiction Medicine. Online Training.
- PCSS MOUD Case-based Learning Collaboratives: OUD and Pregnancy. Providers Clinical Support System. Online Training.
- Treating Pregnant People for Opioid Use Disorder:Clinical Challenges. Providers Clinical Support System. Online Training.
- Opioid Use Disorder in Women. Providers Clinical Support System. Online Training.
- Clinical Guidance for Treating Pregnant and Parenting Women With Opioid Use Disorder and Their Infants. Substance Abuse and Mental Health Services Administration. Booklet.
- Opioid Use and Opioid Use Disorder in Pregnancy. American College of Obstetrics and Gynecology. Committee Opinion.
- Maternal Opioid Medical Supports. Ohio Department of Mental Health and Addiction Services. Online resource.
- Understanding and Supporting Mothers with Substance Use Disorders. National Council for Mental Well-Being.

Upcoming Trainings on Substance Use Disorders

- Ohio Substance use Disorders Center of Excellence. Multiple trainings on various topics in coming months, throughout Ohio and online
- Ohio Alcohol and Substance Use (AUD/SUD) ECHO. Northeastern Ohio Medical University. 1st and 3rd Fridays of each Month at 7 AM (Virtual). **SPECIAL SESSIONS ON TREATMENT OF PREGNANT WOMEN WITH OUD COMING UP!**

At the SUD COE, we are committed to bringing you resources and trainings that meet your needs in providing care to patients with substance use disorders. Please let us know what suggestions you have for improving Clinical QuickNotes, or topics that you would like addressed by clicking QUICKNOTES_feedback.

References

1. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]). Accessed March 23, 2025, Available from URL: https://wisqars.cdc.gov/

2. Malhotra T, Sheyn D, Arora KS. Opioid use disorder at delivery hospitalization in the United States: 2012-2016. *Am J Addict.* 2023 Sep;32(5):442-449.

3. American College of Obstetricians and Gynecologists. Opioid use and opioid use disorder in pregnancy. Committee Opinion No. 711. *Obstet Gynecol* 2017. 130: e81–94.

4. The ASAM National Practice Guideline for the Treatment of Opioid Use Disorder: 2020 Focused Update. *Journal of Addiction Medicine.* 2020.14(2S): p 1-91, March/April 2020.

5. Kelty E, Pyle A, Preen DB. Opioid poisoning during pregnancy: prevalence, characteristics, and neonatal outcomes. *Arch Womens Ment Health.* 2022 Oct;25(5):957-963.

6. Auty, S. G., Frakt, A. B., Shafer, P. R., Stein, M. D., & Gordon, S. H. Severe Maternal Morbidity Among Pregnant People with Opioid Use Disorder Enrolled in Medicaid. *JAMA Network Open.* 2025. 8(1), e2453303-e2453303.

7. Habersham L, Townsel C, Terplan M, Hurd Y. Substance use and use disorders during pregnancy and the postpartum period (Video) *American Journal of Obstetrics and Gynecology.* 2025. Accessed March 23, 2025, https://www.ajog.org/article/S0002-9378(25)00012-2/abstract

8. Hull I, Jawa R, Shang M, Davis C, King C, McMurtrie G, Krans E. Implications of xylazine exposure in pregnancy: a narrative review. *J Addict Dis.* 2024 Aug 21:1-8.

9. Nagarajan MK, Goodman D. Not just substance use: the critical gap in nutritional interventions for pregnant women with opioid use disorders. *Public Health.* 2020 Mar; 180:114-116.

10. Crane, D., Marcotte, M., Applegate, M., Massatti, R., Hurst, M., Menegay, M., et al. A statewide quality improvement (QI) initiative for better health outcomes and family stability among pregnant women with opioid use disorder (OUD) and their infants. *Journal of Substance Abuse Treatment* 2019. 102: 3-59.

11. Nguemeni Tiako MJ, Friedman A, Culhane J, South E, Meisel ZF. Predictors of Initiation of Medication for Opioid Use Disorder and Retention in Treatment Among U.S. Pregnant Women, 2013-2017. *Obstet Gynecol.* 2021 Apr 1;137(4):687-694.

12. Straub, L., Bateman, B. T., Hernández-Díaz, S., Zhu, Y., Suarez, E. A., Vine, S. M., et al. Comparative safety of in utero exposure to buprenorphine combined with naloxone vs buprenorphine alone. *JAMA.* 2024. 332(10), 805-816.

13. Centers for Disease Control and Prevention. Treatment of Opioid Use Disorder Before, During and After Pregnancy. May 15, 2024. Accessed March 23, 2025, Available from URL: www.cdc.gov/opioid-use-during-pregnancy/treatment/index.html

14. Tiako, M. J. N., Knight, K. R., & Schiff, D. M. Prenatal Opioid Use Disorder Treatment—the Importance of Shared Decision-Making. *JAMA Internal Medicine,* 2024 184(3):252-253.

15. Substance Abuse and Mental Health Services Administration. Clinical Guidance for Treating Pregnant and Parenting Women with Opioid Use Disorder and Their Infants. HHS Publication No. (SMA) 18-5054. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2018. Accessed March 25, 2025. https://library.samhsa.gov/product/clinical-guidance-treating-pregnant-and-parenting-women-opioid-use-disorder-and-their

16. Suarez, E. A., Bateman, B. T., Straub, L., Hernández-Díaz, S., Jones, H. E., Gray, K. J., etal. (2024). First trimester use of buprenorphine or methadone and the risk of congenital malformations. *JAMA Internal Medicine,* 2024. 184(3), 242-251.

17. Wang S, Meador KJ, Pawasauskas J, Lewkowitz AK, Ward KE, Brothers TN, Hartzema A, Quilliam BJ, Wen X. Comparative Safety Analysis of Opioid Agonist Treatment in Pregnant Women with Opioid Use Disorder: A Population-Based Study. *Drug Saf.* 2023 Mar;46(3):257-271.

18. Suarez, E. A., Huybrechts, K. F., Straub, L., Hernández-Díaz, S., Jones, H. E., Connery, H. S., et al. (2022). Buprenorphine versus methadone for opioid use disorder in pregnancy. *New England Journal of Medicine.* 2022. 387(22), 2033-2044.

19. Young, L. W., Ounpraseuth, S. T., Merhar, S. L., Hu, Z., Simon, A. E., Bremer, A. A., et al (2023). Eat, sleep, console approach or usual care for neonatal opioid withdrawal. *New England Journal of Medicine.* 2023. 388(25), 2326-2337.

20. Wortham, S. & Bianchi, A. Strategies to Successfully Implement an Eat, Sleep, Console Protocol. *MCN, The American Journal of Maternal/Child Nursing.* 2022. 47 (4), 182-188.

21. Devlin, L. A., Hu, Z., Merhar, S. L., Ounpraseuth, S. T., Simon, A. E., Lee, J. Y., et al. Influence of eat, sleep, and console on infants pharmacologically treated for opioid withdrawal: a post hoc subgroup analysis of the ESC-NOW randomized clinical trial. *JAMA **pediatrics.*** 2024. 178(6), 525-532.

22. Towers CV, Katz E, Liske E, Hennessy M, Wolfe L, Visconti K. Psychosocial Background History of Pregnant Women with Opioid Use Disorder: A Prospective Cohort Study. *Am J Perinatol.* 2020 Jul;37(9):924-928.

23. Johnson, E. Models of care for opioid dependent pregnant women. In *Seminars in perinatology.* 2019. Vol. 43, No. 3, pp. 132-140). WB Saunders.

24. Bakos-Block, C., Yatsco, A., Cohen, A. S., Vega, F., & Champagne-Langabeer, T. "My Addiction Doesn't Define Me"—Experiences of Stigma among Mothers with Opioid Use Disorder. *Pharmacoepidemiology,* 2024. 3(1), 57-68.

25. Durrance, C. P., Pac, J., Berger, L. M., Reilly, A., & Ehrenthal, D. Prenatal opioid exposure, neonatal abstinence syndrome diagnosis, and child welfare involvement. *Child Abuse & Neglect.* 2025. 161, 107246

26. Wilder C, Lewis D, Winhusen T. Medication assisted treatment discontinuation in pregnant and postpartum women with opioid use disorder. *Drug Alcohol Depend.* 2015. 149:225-31.

27. Schiff DM, Nielsen TC, Hoeppner BB, Terplan M, Hadland SE, Bernson D, Greenfield SF, Bernstein J, Bharel M, Reddy J, Taveras EM, Kelly JF, Wilens TE. Methadone and buprenorphine discontinuation among postpartum women with opioid use disorder. *Am J Obstet Gynecol.* 2021 Oct;225(4):424. e1-424.e12.

28. Cleveland LM. Breastfeeding Recommendations for Women Who Receive Medication-Assisted Treatment for Opioid Use Disorders: AWHONN Practice Brief Number 4. *J Obstet Gynecol Neonatal Nurs.* 2016. Jul-Aug; 45(4):574-6.

29. Volkow NR. 2023. Pregnant people with substance use disorders need treatment, not criminalization. *StatNews.* February 8, 2023. https://www.statnews.com/2023/02/08/addiction-pregnancy-treatment-not-criminalization/. Accessed March 23, 2025

This QuickNote is an overview only and is not intended to be the sole resource for treating pregnant and postpartum women with Opioid Use DIsorder. The reader is encouraged to seek additional information from sources listed in "For Additional Information on This Topic."