

OUD in special populations (adolescents, pregnant women)

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Sarah Bagley and Kelley Saia have nothing to disclose



Learning Objectives

- Understand opioid use disorder in adolescents.
- Understand opioid use disorder in pregnancy.
- Learn treatment options for OUD in pregnancy and post-partum.
- Learn treatment options for Neonatal Abstinence Syndrome.

Adolescent Brain Development

- We know now that adolescent brain development continues into the mid-20s
- Brain development occurs from back to front- the last part of the brain to develop is responsible for impulse control and judgment
- Adolescents are appropriately trying to take risks during this time- such risk taking will allow them to become self-sufficient adults
- However, risks such as using substance can lead to injury, unsafe sexual activity and in some cases development of a substance use disorder



Epidemiology of Adolescent Opioid Use

- Opioid use has declined in adolescents (less than 12th grade) in recent years
- However, adolescents have a lower odds of receiving treatment for opioid use disorder compared to older adults
- In addition, 18-25 year old opioid use and fatal overdose continues to be a prevalent and persistent issue



Confidentiality

- Important to assure the adolescent that the care they will receive is confidential
- Explain that there will be times that confidentiality would have to be broken- for example if there is a risk for significant harm to him/herself or others
- Even in the time that confidentiality needs to be broken, details do not have to be revealed



Consent for Treatment

- Ideally parents/caregivers are involved and can give consent for treatment for a substance use disorder
- May be times that this is not possible- important to know your state guidelines about treating without consent from a parent
- Although in some states this might be possible, in those cases it is likely that you should be consulting your legal experts or child protection team



Medication Treatment for Adolescents

American Academy of Pediatrics released policy statement in 2016 with the following recommendations:

1. Increased resources to improve access to medications for adolescents with opioid addiction.
2. Pediatricians can consider offering medication treatment to adolescent and young adult patients with severe opioid use disorders or discuss referral options

<http://pediatrics.aappublications.org/content/early/2016/08/18/peds.2016-1893>

Harm Reduction

- “Harm reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use. Harm Reduction is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs.”
- Goal is to engage the adolescent and in some cases that may mean working toward abstinence in the future
- Ambivalence is common-in those situation key to ensure that you are discussing safety plan with adolescents and their families (if possible)

Family Involvement

- Parents and other caregivers can be key allies in supporting an adolescent with an opioid use disorder
- Adolescents who have involved family tend to do better than those who do not
- Families may need their own support as well
- Ensure that all families have access to overdose education and naloxone rescue kits



Contraception

- Many of these adolescents will be at risk for both pregnancy and sexually transmitted diseases
- The same principals in terms of confidentiality and consent are relevant here and you should be familiar with them
- All adolescents should be asked about their sexual activity and offered contraception, STI testing and information about how to access emergency contraception



Checklist for Treating Adolescents

- Assurance of confidentiality
- Sign releases to talk to parents/caregivers
- Family involved- including access to naloxone
- Treatment agreement including how medication to be taken and stored
- Plan for contraception, screening STI labs
- Engagement in prosocial activities, connections with peers who are sober



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Resources

[HRSA opioids crisis webpage](#)

[SAMHSA Opioid Overdose Toolkit](#)

Families

[Partnership for Drug-Free Kids](#)

Harm Reduction

[Principles of Harm Reduction](#)

Overdose Education and Naloxone

[Prescribe to Prevent](#)



Pregnancy

- Outline
 - Women, opioid use disorder and pregnancy
 - Treatment options in Pregnancy
 - Methadone
 - Buprenorphine (Bup)
 - Detoxification
 - Naltrexone
 - Intra-partum care
 - Postpartum care
 - Post-operative pain control
 - Breastfeeding
 - Contraception



Gender and Opioid Use Disorder

Opioid Use among Women

- Between 2004 and 2010: opioid-related **overdose deaths increased** more rapidly among Women (400%), then Men (276%)(1)
- In 2015 there were more past-year initiates of **prescription opioid misuse among Women** (1.2 million – 0.9%) than Men (0.9 million – 0.7%)(2)
- There are still more male than female adults who use heroin, **heroin use is increasing twice as fast among women than men**(2)
- Today **50% of new heroin initiates are Women** (3)

Pregnancy and Opioid Use Disorder (OUD)

- Nearly **50%** of Pregnant substance use disorder treatment admissions are for Opioids(1)
- **Overdose** mortality has surpassed **hemorrhage, pre-eclampsia and sepsis** as a cause of pregnancy-associated death(2)



Gender, Pregnancy and OUD

- **86%** of pregnant opioid-misusing women report pregnancy was unintended (1)
 - In general population: 31%–47% are unintended
- Pregnancy can be a powerful catalyst for women to engage in treatment
- During Pregnancy
 - Adolescents report the highest illicit substance use in the prior month
 - Reported **substance use decreases with increasing maternal age** (NSDUH 2012-2013)
 - Trend toward reduction of use over gestation
 - Reported **substance use decreases with increasing gestational age** (SAMHSA TEDS 2014)

Medically-Assisted Withdrawal in Pregnancy (Detoxification)

- Not recommended in pregnancy (1)(2)(3)
- **Withdrawal** management has **been found to be inferior in effectiveness over pharmacotherapy with opioid agonists and increases the risk of relapse without fetal or maternal benefit (ASAM)**
- Increased rate of relapse with associated overdose mortality following *detoxification*
- Increased access to opioid agonist treatment was associated with a reduction in heroin overdose deaths(4)
- Offering pharmacotherapy for OUD in pregnancy increases*
 - Treatment retention
 - Number of obstetrical visits attended
 - In-hospital deliveries

TREATMENT OPTIONS FOR OUD IN PREGNANCY

METHADONE

- Has been the *Gold Standard* for opioid use disorder in pregnancy
- Pregnancy category C
- Limited dosing flexibility
 - Split dosing in pregnancy is preferred due to increased clearance in later gestation
- Prolonged QT syndrome
 - Baseline EKG recommended
 - Repeat EKG for dosing changes above 100mg
- May contribute to lower birth weights when compared to Bup-exposed newborns

BUPRENORPHINE

- Gaining First-line recognition for treatment of opioid use disorder in pregnancy
- Pregnancy category C
- When compared to methadone:
 - Lower preterm delivery rate*
 - Higher birth weight*
 - Larger head circumference*
- Allows for adjustable dosing (split dosing)
- Treatment retention for pregnant women may favor buprenorphine over methadone(2).



Neonatal Abstinence Syndrome: Methadone and Buprenorphine

Maternal Opioid Treatment Human Experimental Research (MOTHER) : NEJM 12/2010

- Double-blind, double-dummy, flexible-dosing, parallel-group clinical trial
- Neonatal Outcomes: Comparing MMT and Buprenorphine
- 73 MMT
- 58 Buprenorphine
- Shorter Hospital Stay (10 days vs. 17 days)
- Lower Mean Dose of Morphine (1.1mg vs 10.4mg)
- Shorter Duration of Treatment (4 days vs. 9 days)

Naltrexone: Emerging Data in Pregnancy

- ❖ 25 published human cases: all with normal birth outcomes(1)(2)(3)
- ❖ Animal literature without evidence for teratogenicity, although behavioral changes in animal offspring have been noted(4)
- ❖ No human long-term outcomes or developmental studies available
- ❖ May be appropriate for select patients
- ❖ High maternal interest in treatment without NAS sequelae(5)

Intrapartum Care

- Pharmacotherapy should be continued through labor (and postpartum) at same prenatal dose
- Labor pain should be managed with regional anesthesia (epidural)
- Do not use mixed opioid agonist-antagonist (butorphanol (*Stadol*)/nalbuphine (*Nubain*))
 - Will precipitate a withdrawal syndrome for women on opioid pharmacotherapy
- Spinal anesthesia provides adequate pain control for C-sections

Postpartum:

patient wishes to avoid use opioids postpartum should be established

- Pharmacotherapy should be continued at same dose postpartum
 - Some women will require/request a dose decrease after delivery due to sedation; but any decrease should be individualized and carefully monitored
 - For MMT, Postpartum fatigue and potential peak dose sedation should be anticipated; and precautions taken
- NSAIDS and non-opioid pain medications should be maximized (scheduled orders; not PRN)
- Full opioid agonists should be used for post-operative pain
 - Bup and MMT patients have higher opioid requirements than general population (1)
 - Bup does not appear to prevent/block efficacy of full-opioids (Vilkins 2017)



Naltrexone: Intrapartum and Postpartum

- Between 35-38 weeks gestation: women should be transitioned from IM Naltrexone to oral (Naltrexone 50mg po qd)
- With the onset of labor, women should hold oral dosing
 - Precautions allow for postoperative full opioid agonists pain control prn
- IM Naltrexone can be resumed postpartum



Breastfeeding

Methadone and buprenorphine are safe for breastfeeding

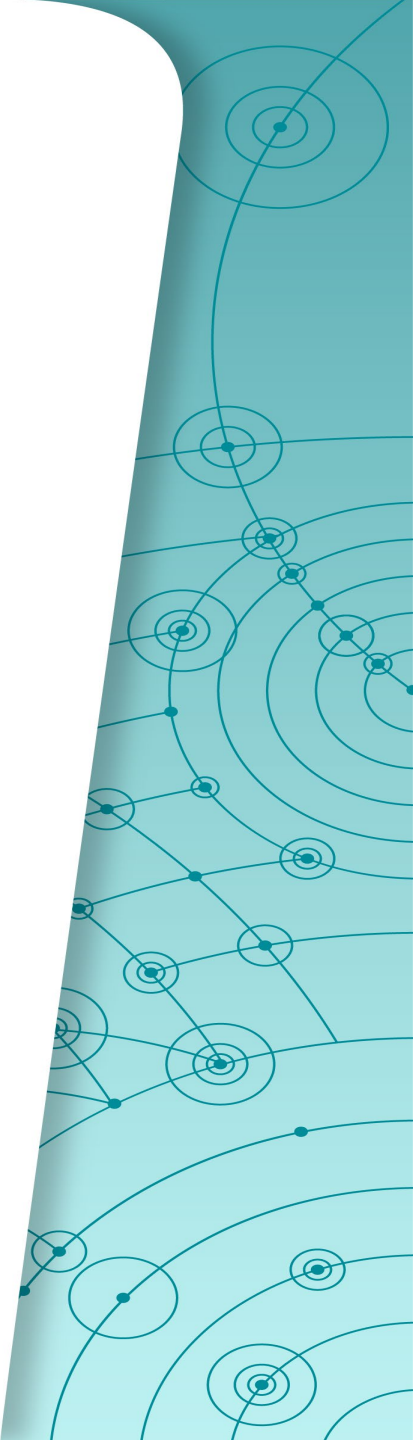
<1% of maternal opioid intake transmitted to breastmilk (1)

*Published guidelines from the American Academy of Pediatrics (AAP), the American College of Obstetricians and Gynecologists (ACOG), and the Academy of Breastfeeding Medicine (ABM) all support breastfeeding for women on opioid pharmacotherapy

- Maternal benefits: increased oxytocin levels are linked to lower stress, increased maternal-infant bonding both lower the risk of postpartum relapse (2)
- Newborn benefits: reduction in pharmacologic treatment for NAS, shorter hospital stays (2)

Contraception

- All postpartum women should be offered reliable contraception
- Contraception options should be reviewed/ discussed during prenatal care with a set plan prior hospital discharge
- Access to long acting reversible contraceptive (LARC) options should be readily available



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