ECHO IDAHO:
Opioids, Pain & Substance Use Disorders

Treatment of Alcohol Use Disorder in Pregnancy and Beyond

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Cate Heil, MD, FASAM

Full Circle Health - Nampa Primary Care Psychiatry Fellow

Disclosures

- I have no disclosures.

Learning Objectives

- Learn about the physiology of alcohol in pregnancy
- Understand prevention and treatment options in pregnancy
- Understand breastfeeding physiology and treatment options

Words are Important

Words to Use	Words to Avoid
Person with a substance use disorder	Addict/drug abuser
Person with alcohol use disorder	Alcoholic
Substance use disorder	Drug problem, drug habit
Drug misuse, harmful use	Drug abuse
Substance use	Substance abuse
Not actively using	Clean
Testing positive for substance use	A clean drug screen
Actively using	Dirty
Testing positive for substance use	A dirty drug screen
Person in recovery, person in long-term recovery	Former/reformed addict/alcoholic

Review

- Person-first language.
- Addiction vs physical dependence.
- Addiction is a treatable chronic medical disease.
- It involves complex interactions between neurobiology, genetics, environment, and life experience.
- It is defined as a “chronic, relapsing disorder characterized by compulsive drug-seeking and use despite adverse consequences”.
- Prevention and treatment approached are about as successful as methods for other chronic diseases.

National Survey on Drug Use and Health (NSDUH) Data

- Most recent data is from 2022
- For pregnant women, the most common substances used while pregnant were **alcohol**, tobacco, marijuana, and opioids.
  - **9-11% for alcohol** with **4.7-5.3% with binge alcohol use** and 1.1-1.7% with **heavy alcohol use**

Definitions

- **Binge alcohol use**: consuming 5+ drinks on one occasion (two hours) for men or 4+ for women (CDC)
  - Associated w/ serious injuries, sexual assault, suicide, homicide, intimate partner violence, STI transmission, unintended pregnancy and poor pregnancy outcomes, FASD, SIDS, and higher risk of AUD
  - Most common among those aged 18-34 y/o
- **Heavy alcohol use**: 8+ drinks per week for women or 15+ for men
- **Excessive alcohol use**: binge drinking, heavy drinking, or ANY alcohol use by a pregnant woman or anyone younger than 21 y/o

Teratogens

- Teratogen = a substance that may produce an alteration in the offspring's physical structures and/or behavior when used during gestation
- Many confounding factors (nutrition, stress, use of substances)
- Most potential for teratogenicity = alcohol and tobacco

Ounce of prevention, pound of cure

- The AAFP and ACOG (with American Society for Reproductive Medicine) agree on screening women for unhealthy alcohol consumption and counseling on the risk of fetal alcohol spectrum disorders (FASD), and counseling/education about the risks of substance use during pregnancy.
- ACOG specifically notes that there is no safe level or type of alcohol use during pregnancy.
- Goals = reduce risk of adverse health effects for the pregnant person, fetus, and neonate through optimizing health, addressing modifiable risk factors, and providing education regarding healthy pregnancies.
- FASD (fetal alcohol spectrum disorders) = most common known non-inherited cause of developmental disability in the US
- Fetal exposure to alcohol and sustained exposure/intake during any trimester of pregnancy is associated w/ an increased risk of FAS

Physiology

- Women can have higher blood alcohol levels (BAL) and greater intoxication than men with the same amount of alcohol consumed.
  - This is due to a higher percentage of body fat, less stomach alcohol dehydrogenase, and a less active form of liver ADH
  - Less stomach alcohol dehydrogenase = alcohol isn't metabolized before it gets out of the stomach
  - This all leads to less efficient metabolism of alcohol → increases the BAL
- Alcohol passes from maternal blood through the placenta and then to the fetus
  - Alcohol is broken down much more slowly in the fetus than in an adult, so the BAL remains high and sticks around longer → alcohol is found in significant levels in the amniotic fluid even after a moderate dose of alcohol
  - Amniotic fluid eliminates alcohol slower than maternal circulation
  - Then it accumulates in the amniotic fluid, which baby swallows, and excretes again via the kidneys
  - Main point: the effects of alcohol on the fetus are prolonged due to accumulation in the amniotic fluid, reduced concentration of fetal metabolic enzymes, and reduced elimination

Framework from ASAM

From the ASAM's Essentials of Addiction Medicine Textbook:
"Women who use substances during pregnancy often do so in the context of intricately complex individual, social, and environmental factors, including poor nutrition, extreme stress, violence of multiple forms, poor housing conditions, exposure to environmental toxins and diseases, and depression, all of which can impact postnatal outcomes."

Screens Validated for Pregnancy

- 4P's – Parents, Partner, Past, Present
- NIDA Quick Screen
- CRAFFT (women 26 y/o or younger) – Car, Relax, Alone, Forget, Family/Friends, Trouble

Pregnancy-specific risks

- Withdrawal
- Fetal Alcohol Spectrum Disorder (FASD)

Withdrawal

- ASAM Guidelines recommend that inpatient management be considered for all pregnant patients going through alcohol withdrawal
- Offer inpatient treatment for CIWA scores $\geq$10
- Using CIWA scoring is appropriate for pregnant women – however consider potentially common symptoms of pregnancy (nausea, headache, insomnia, anxiety) as related to alcohol withdrawal
- Consult with an OB/GYN!

Withdrawal

- Use of benzodiazepines and barbiturates are still the medications of choice
  - Small risk of teratogenicity during the first trimester
  - Weigh this risk with the risk of FASD and severe alcohol withdrawal
- Valproic acid is not recommended due to teratogenic risk
- If undergoing treatment for alcohol withdrawal close to delivery (preterm or otherwise), use a short acting benzodiazepine to reduce neonatal risk
  - Monitor baby for intoxication and sedative withdrawal after delivery
- Fetal monitoring is based on the stage of pregnancy
  - Risk of abruption, preterm delivery, fetal stress, IUFD

Treatment – not pregnant

- FDA-approved medications for Alcohol Use Disorder (AUD):
  - Naltrexone
  - Disulfiram
  - Acamprosate
- Off-label meds:
  - Gabapentin
  - Baclofen
  - Topiramate

Treatment - pregnant

- Disulfiram – contraindicated due to acetaldehyde accumulation and fetal abnormalities
- Naltrexone – lack of knowledge → next slide
- Acamprosate – adverse events observed in animal studies; some case reports show potential benefits
- Gabapentin – folic acid supplementation recommended, consider with caution; possible cardiac malformation risk, preterm birth, SGA, NICU admission, neonatal withdrawal

Naltrexone

- Recent case report followed 7 pregnant individuals with either OUD or AUD treated with naltrexone from pregnancy until a year after delivery.
  - 4 with OUD and 3 with AUD – were already stable on naltrexone before the study, singleton pregnancy
  - Included both oral and extended-release naltrexone
  - Mean gestational age at delivery was 37 weeks, all vaginal deliveries
  - Part of the MOM NEST Study; prospective cohort study
- No reported fetal anomalies
- One preterm delivery
- No returns to use of opioids, but two returned to use of alcohol briefly postpartum
- Reassuring maternal and infant outcomes → conclusion was that naltrexone is a potential treatment option

Naltrexone, continued

- Starting or stopping medications has risks
  - Fetal distress, destabilization, increased risk for overdose
- Breastfeeding was encouraged
- All infants discharged to the parent (7), 5 were in custody of parents at 12 months (71%)
- Two infants went to the NICU due to prematurity and transient tachypnea of the newborn
- One child with suspected FASD – there was early pregnancy alcohol use prior to naltrexone start

Barriers

- Lack of national guidelines regarding naltrexone and pregnant patients
- Provider discomfort
- Limited access to treatment

Breastfeeding

- The alcohol level in breastmilk is similar to what's in the maternal bloodstream
- The CDC recommends waiting two hours after having alcohol before breastfeeding
  - Alcohol levels in breastmilk are highest 30-60 minutes after drinking
- Recommendations for age and sex (one standard drink a day or less) apply
- Five or more drinks reduces milk letdown

Treatment - breastfeeding

- Disulfiram – unknown if present in breastmilk; not recommended by manufacturer
- Naltrexone – metabolites present in breastmilk; weigh risks and benefits
- Acamprosate – unknown if present in breastmilk; manufacturer recommends caution
- Gabapentin – present in breastmilk; in one small study adverse events were not reported; weigh risks and benefits and monitor for infant drowsiness, adequate weight gain, and meeting milestones

References

- NSDUH Data: https://www.samhsa.gov/data/report/2022-nsduh-detailed-tables
- AAFP Preconception Care Recommendations: https://www.aafp.org/about/policies/all/preconception-care.html
- ACOG Committee Opinion on Prepregnancy Counseling January 2019, reaffirmed 2020 https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2019/01/prepregnancy-counseling
- ASAM Essentials of Addiction Medicine Textbook
- CDC Fact Sheet on Binge Drinking: https://www.cdc.gov/alcohol/fact-sheets/binge-drinking.htm
- ASAM Clinical Practice Guideline on Alcohol Withdrawal Management
- ACOG Committee Opinion Number 633: Alcohol Abuse and Other Substance Use Disorders: Ethical Issues in Obstetric and Gynecologic Practice

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- https://www.cdc.gov/breastfeeding-special-circumstances/hcp/vaccine-medication-drugs/alcohol.html#:~:text=Safety%20concerns-,Not%20drinking%20alcohol%20is%20the%20safest%20option%20for%20breastfeeding%20mothers,a%20single%20drink%20before%20nursing.
- LactMed - alcohol

Session Resources

- Session resources coming soon!

Check back after the session for resources that were referenced in the presentation or session chat and patient case recommendations.