

# Perinatal Alcohol Use Disorder: Management Considerations Across the Care Continuum

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Niraj R. Chavan, MD, MPH, FACOG, FASAM

Sonja Williams, DO, FACOOG, FASAM

Maria Manriquez, MD, FACOG, FASAM



# Disclosure Information

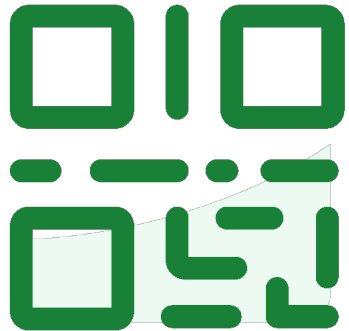
- ◆ Niraj R. Chavan, MD, MPH, FACOG, FASAM
  - ◆ Speaker honorarium – Vertex pharmaceuticals
- ◆ Sonja Williams, DO, FACOOG, FASAM
  - ◆ No Disclosures
- ◆ Maria Manriquez, MD, FACOG, FASAM
  - ◆ No Disclosures

# Learning Objectives

- ◆ Discuss the approach to **screening for alcohol use disorder among pregnant and parenting persons** and demonstrate the use of brief intervention to address this clinically.
- ◆ Recognize the clinical presentation in cases of acute alcohol intoxication and withdrawal and **articulate the approach to evaluation and management in the inpatient setting**
- ◆ Describe **evidence informed strategies for long term outpatient management using pharmacotherapy** most suited to the pregnancy and postpartum landscape

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## What is your role as a provider in perinatal addiction medicine?

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**If you are involved with direct patient care of pregnant and parenting people with alcohol use disorder - what is your primary clinical specialty?**

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**What is your level of experience in managing pregnant and parenting people with alcohol use disorder?**

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# Screening and Brief Intervention

Sonja Williams, DO, FACOOG, FASAM

Medical Director  
BHG Cullman Treatment Center  
[www.bhgrecovery.com](http://www.bhgrecovery.com)

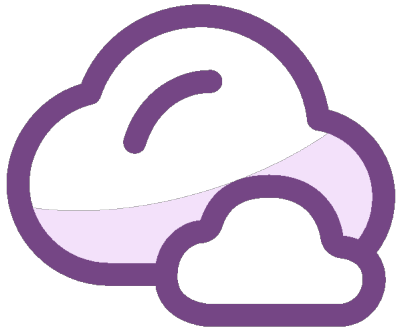


# The Case of “Jazz”

- ◆ Jazz (pronouns: she/her) is a 16 year young TPAL-1000 pregnant person presents to OB triage at estimated 24 weeks gestation. She reports recurrent emesis and nausea in AM.

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**Which screening tool would you use for screening for alcohol use in this patient?**

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# Alcohol Use Epidemiology

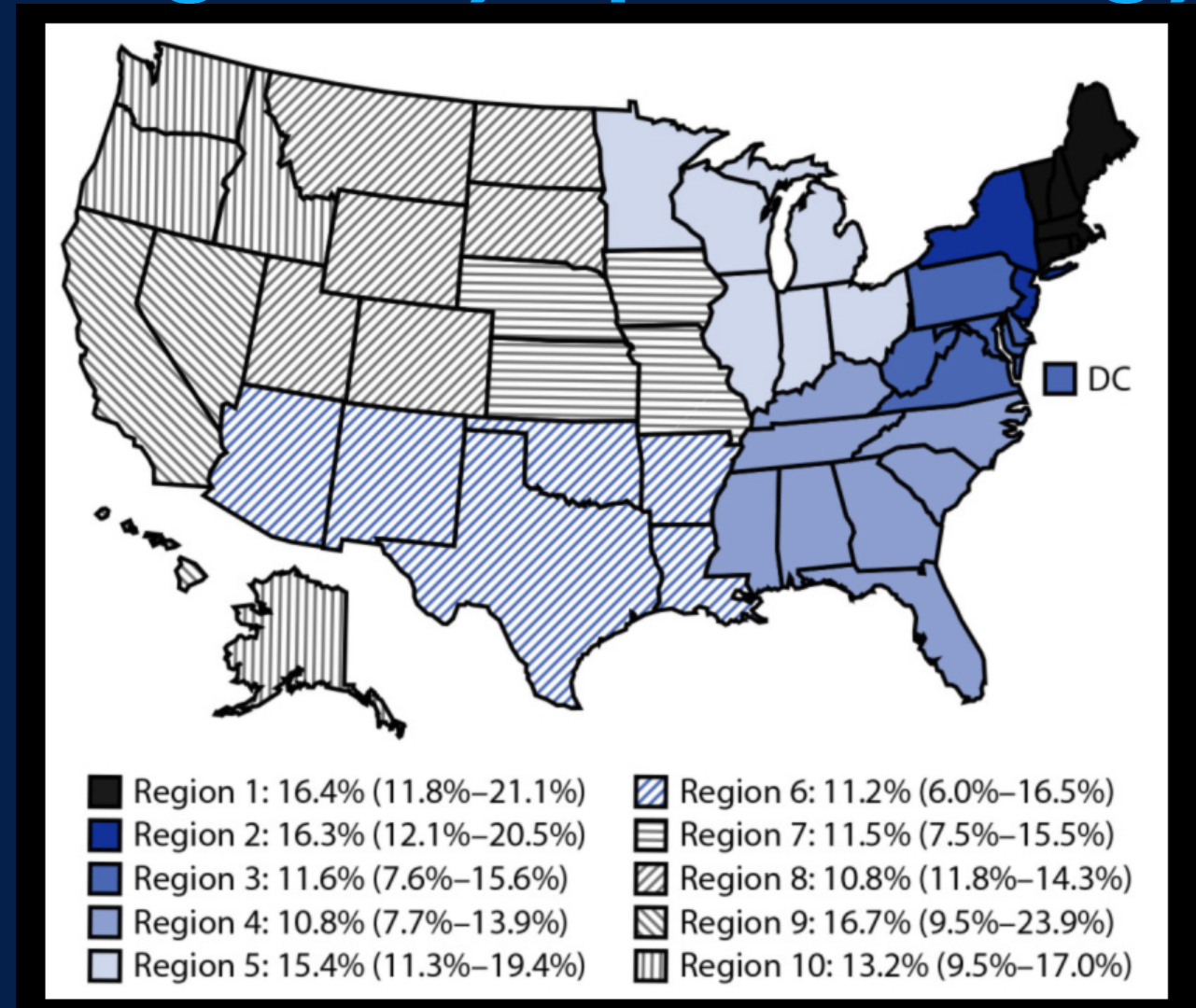
- 114.7 million females ages 12 and older 111.7 million women ages 18 and older drank alcohol at some point in their life
- 25.7 million females 12 and older, 515,000 girls 12 to 17 and 25.2 million women ages 18 and older report past month Binge drinking
- 5.5 million females ages 12 and older, 54,000 girls aged 12 to 17, and 5.4 million women ages 18 and older report past month heavy alcohol consumption



# Alcohol Use in Pregnancy Epidemiology

Estimated prevalence  
of current drinking  
among pregnant  
adults aged 18-49  
years

(n=6,327) USDHHS  
Behavior Risk Factor  
Surveillance System  
2018-2020



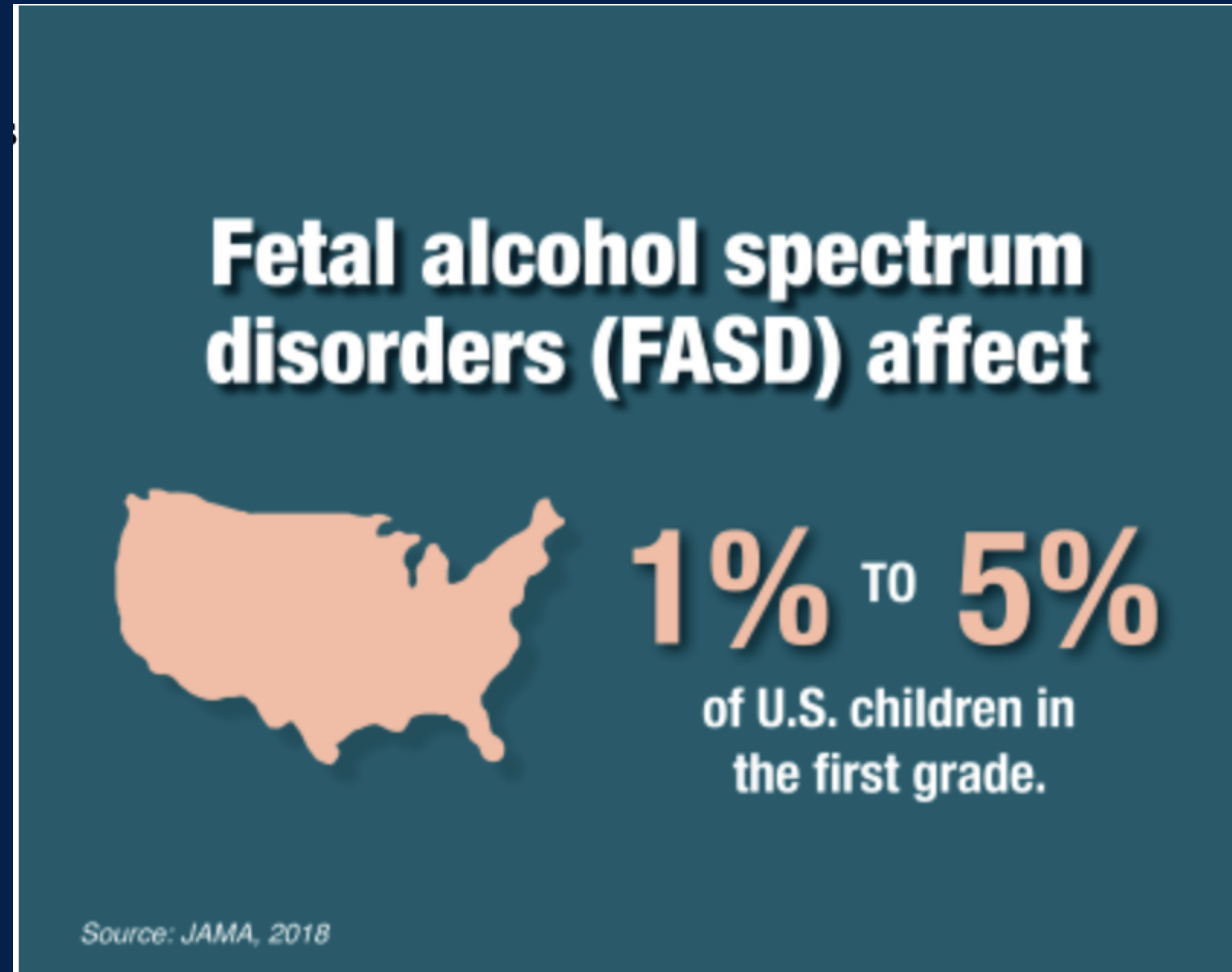
Gosdin LK, Deputy NP, Kim SY, Dang EP, Denny CH. Alcohol Consumption and Binge Drinking During Pregnancy Among Adults Aged 18-49 Years - United States, 2018-2020. MMWR Morb Mortal Wkly Rep. 2022 Jan 7;71(1):10-13. doi: 10.15585/mmwr.mm7101a2. Erratum in: MMWR Morb Mortal Wkly Rep. 2022 Jan 28;71(4):156. doi: 10.15585/mmwr.mm7104a4. PMID: 34990444; PMCID: PMC8735564.

# Alcohol Use in Pregnancy Epidemiology

2023 data NSDUH

- 8.4% of pregnant women ages 15 to 44 used alcohol in the last month
- 4.8% of pregnant women ages 15 to 44 reported binge drinking within the last month

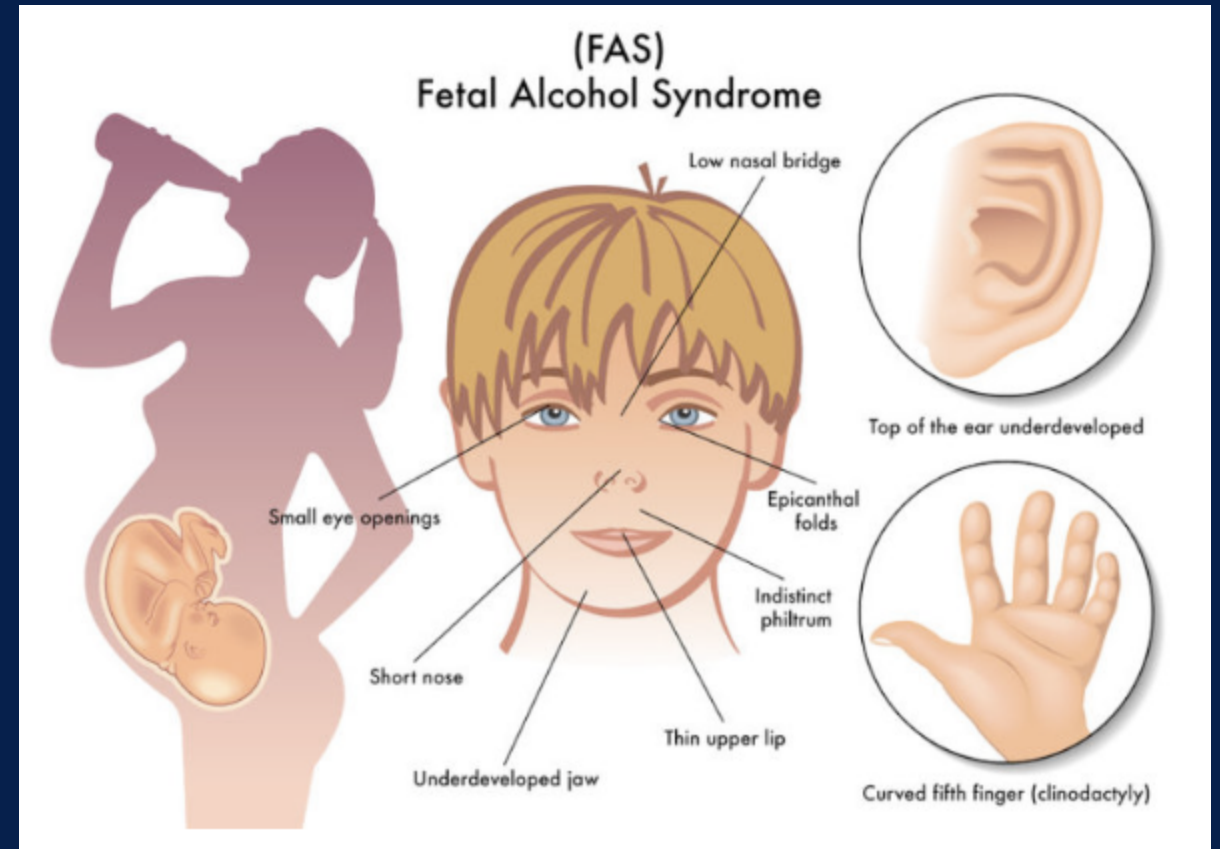
# Consequences of Alcohol Use in Pregnancy



Mav PA. Chambers CD. Kalbera WO. Zellner J. Feldman H. Bucklev D. Kopald D. Hasken JM. Xu R. Honerkamp-Smith G. Taras H. Mannina MA. Robinson LK. Adam MP. Abdul-Rahman O. Vaux K. Jewett T. Elliott AJ. Kable JA. Akshoomoff N. Falk D. Arrovo JA. Hereld D. Rilev EP. Charness ME. Coles CD. Warren KR. Jones KL. Hovme HE. Prevalence of Fetal Alcohol Spectrum Disorders in 4 US Communities. JAMA. 2018 Feb 6;319(5):474-482. doi: 10.1001/jama.2017.21896. PMID: 29411031; PMCID: PMC5839298.

# Fetal Alcohol Spectrum Disorders

- Behavioral issues
  - hyperactive behavior
  - difficulty with attention
  - poor reasoning and judgement skills
- Learning challenges
  - poor memory
  - learning disabilities
  - speech and language delays
  - intellectual disabilities or low IQ
  - Difficulty in school (especially math)
- Physical problems
  - Low body weight
  - poor coordination
  - problems with heart kidney or bones
  - shorter than average height
  - vision or hearing problems
  - small head size
  - sleep and sucking problems as a baby
  - abnormal facial features such as smooth philtrum



The severity of FASD is linked to amount of alcohol used with binge drinking being especially harmful

# SBIRT

Validated tools include:

1. T-ACE
2. TWEAK
3. 5P's

less commonly used in OB setting  
AUDIT, DAST, ASSIST

CRAFFT- adolescents 12-17

# T-ACE

Tolerance: How many drinks does it take to make you feel high?

>2=2pts

Annoyed: Have people annoyed you by criticizing your drinking?

Yes=1pt

Cut down: Have you felt you ought to cut down on your drinking?

Yes=1pt

Eye-opener: Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a handover?

Yes=1pt

Score of 2 or more indicates risky drinking

# TWEAK

**Tolerance:** How many drinks can you hold?

2pts of >5 drinks or >2 drinks in some studies

**Worried:** Have friends/family complained about your drinking?

Yes=2pts

**Eye-opener:** Do you drink in the morning?

Yes=1pt

**Amnesia:** Have you had blackouts?

Yes=1pt

**Kut down:** Do you feel the need to cut down?

Yes=1pt

Score of 2 or greater indicates need for further assessment

# 5P's or 4P's+

**Parents:** Did either of your parents ever have a problem with alcohol or drugs?

**Peers:** Do any of your friends have a problem with alcohol or drugs?

**Partners:** Does you partner or someone close to you have a problem with alcohol or drugs?

**Past:** In the past, have you had difficulties in your life due to alcohol or other drugs?

**Present:** In the past month, how often have you drunk beer, wine, or liquor or used other drugs?

# Demonstration of Brief Intervention



# Brief Intervention Simulation



# Acute Intoxication and Withdrawal Management

Maria Manriquez, MD, FACOG, FASAM, PMH-C

Phoenix Branch Director, Comprehensive Center for Pain & Addiction

Director, UME Pain and Addiction Curriculum

Professor, Department of Obstetrics and Gynecology

Addiction Medicine Fellowship Associate Program Director

University of Arizona, College of Medicine - Phoenix



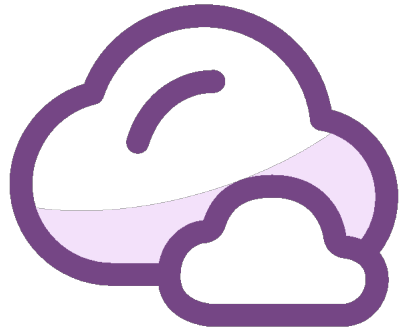
# Intoxication and Withdrawal Management

## Case Presentation

“Jill” (pronouns: she/hers) is a 32 yo G4P0212 to ED by her partner for **acute intoxication** and **refractory epistaxis** after tripping and hitting her face. She is discovered to be pregnant by UPT, an ultrasound was obtained with a CRL consistent with 7 weeks gestation. Her partner states she has attempted “rehab” on two previous occasions. On examination, she has **conjunctival injection, slurred speech, hyperreflexia, impaired attention and memory, tachycardia, hypertension**. Her partner reports that she consumes alcohol daily and to his knowledge **up to a 750ml bottle of vodka every other day**.

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**What are your major concerns for this patient?**

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**What is the next best step in your evaluation?**

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**In what setting would you like to manage this patient?**

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# Open Discussion

- ◆ What does management for this patient look like in your clinical setting?

# Intoxication in Pregnancy

Immediate stabilization priorities<sup>1,2</sup>

- ◆ Secure airway, monitor vitals, prevent aspiration
- ◆ Treat hypoglycemia and observe for co-intoxicants

Fetal considerations - alcohol readily crosses placenta

- ◆ Fetal alcohol spectrum disorder
  - ◆ Facial dysmorphism and structural malformation most strongly associated with first trimester exposure.
  - ◆ Growth restriction, CNS and neurodevelopment effects throughout
- ◆ SBIRT - **brief intervention**<sup>3</sup> once patient is stable

1. Rosen's Emergency Medicine pp 1846-1860. 2. Acute Ethanol Toxicity last update 10.17.25

3. A Brief Intervention on AUD.. Twohig, PA et al J Addict Med Jan/Feb 2025

# Intoxication and Withdrawal Management

## Acute intoxication - Case Presentation

- Jill's airway is secured with positioning and an **oral airway**.
- **Nose is packed** for epistaxis.
- Fluid resuscitation, treat hypoglycemia [Thiamine before Glucose preferred]
- A CT demonstrates no head bleed, **mild atrophy in frontal lobe**.
- An ultrasound of the liver shows **hyperechoic striations and overall enlargement**.

Once she is less obtunded an CIWA-Ar is completed **with a score of 20**



# Intoxication and Withdrawal Management

## Inpatient vs outpatient management

- Patient selection - Mild/Mod CIWA-Ar vs Severe CIWA-Ar
  - History of withdrawal seizures
- Monitoring Differences
- Risks of Complications
  - Medical or Psychiatric
- Treatment Approaches
- Outcome and Prognosis
- Placement Criteria
  - ASAM Criteria

# Withdrawal Management

## Outpatient Setting

- ❖ Benzodiazepines are first line treatment
- ❖ Tapering from peak dose after 48 hours (fixed vs symptomatic)
  - Fixed longer acting benzodiazepine **vs** symptomatic short acting
- ❖ Autonomic hyperactivity (beta-blocker or clonidine)
- ❖ Stress abstinence while taking benzodiazepine
- ❖ Employ daily subjective alcohol withdrawal scale (SAWS)
- ❖ Daily calls and twice a week visits
- ❖ Arrange consult and continuation of care with MFM

# Outpatient Management

**Niraj Chavan, MD, MPH, FACOG, FASAM**

Associate Professor, Div. of Maternal Fetal Medicine  
Dept. of Obstetrics, Gynecology & Women's Health,  
Medical Director – Women and Infant Substance Help (WISH) Center,  
Program Director – Maternal Fetal Medicine Fellowship,  
Regional OB Quality Chair – SSM Health St. Louis,  
Saint Louis University | SSM Health

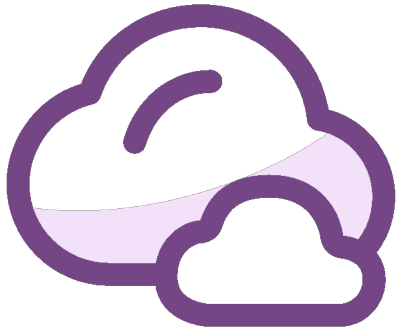


# Case Presentation

- ◆ Jill was discharged after having been admitted inpatient for a week for acute alcohol intoxication. She was motivated to pursue sobriety and was started inpatient on a benzodiazepine taper with clonazepam with instructions to follow up with her outpatient perinatal addiction management clinic in 3-4 weeks. She presents 4 weeks later, reports being sober for the last 4 weeks, still taking her clonazepam, but also reports off and on cravings for drinking again which are hard to resist. She really wants to learn more about longer term options for maintaining her sobriety.

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**What are some of the management options for Jill in this setting?**

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**What are some of your goals for perinatal treatment?**

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# Open Discussion

- ◆ How would you manage this patient if she showed up at your clinical facility?

# AUD Treatment

- ◆ Brief interventions
- ◆ Peer-supported recovery
- ◆ Cognitive behavioral therapy
- ◆ Motivational enhancement
- ◆ Maintenance medications

# Goals of Perinatal Treatment

## Pregnant Individual

- ◆ Prevent complications of alcohol cessation
- ◆ Reduce risk of alcohol related injury
- ◆ Limit long term health complications of alcohol exposure

## Pregnancy

- ◆ Minimize risk of fetal alcohol spectrum disorders
- ◆ Identify need for postnatal intervention (pediatric)

# Medication Management Options

- ◆ Naltrexone (oral or long acting injectable)
- ◆ Acamprosate
- ◆ Disulfiram
- ◆ Gabapentin\*
- ◆ Topiramate\*
- ◆ Baclofen\*
- ◆ Prazosin

\*off-label use

# Acamprosate

- ◆ Mechanism: GABA analog and NMDA receptor modulator
  - ◆ Modulates GABA response to drinking
- ◆ Crosses placenta (animal studies)
- ◆ No evidence of teratogenicity (animal studies)
- ◆ Neuroprotective effect suggested (animal studies)
- ◆ Human study 54 dyads, variable timing/duration of exposure
  - ◆ Case series 18 pregnancies, first trimester exposure

# Acamprosate

- ◆ Effective for decreasing drinking, increasing abstinence
- ◆ Dosing: 666mg po TID
- ◆ Contraindication for patients with renal impairment
- ◆ Can have GI side effects
- ◆ Relative high efficacy – more so in the setting of abstinence

# Disulfiram

- ◆ Mechanism: irreversibly inhibits acetaldehyde dehydrogenase, causing buildup of acetaldehyde and unpleasant symptoms when alcohol is consumed
- ◆ Increased sensitivity to alcohol, 10-30 minutes
- ◆ Dosing: 125 to 500mg daily
- ◆ Hangover type symptoms
- ◆ Contraindications: liver failure, ongoing alcohol use
- ◆ Efficacy is limited to settings with good adherence and
- ◆ complete abstinence

# Naltrexone

- ◆ Opioid antagonist
- ◆ Attenuates dopamine response to alcohol intake
- ◆ Nausea, dizziness, vomiting
- ◆ Dose dependent increase early fetal loss (animal studies)
- ◆ No teratogenicity (animal studies)
- ◆ Human data published for perinatal OUD treatment

# Naltrexone in pregnancy

- ◆ Nonselective opioid receptor antagonist
- ◆ Blocks euphoric and sedative effects of opioids => Naltrexone binds and blocks the opioid receptors, and thus suppresses opioid cravings
- ◆ Lacks the potential for misuse and tolerance - NOT a controlled substance.
- ◆ Prevents craving and does not lead to dependence => No withdrawal when naltrexone is stopped.
- ◆ FDA approved for both OUD and AUD
  - ◆ Oral (50mg) and Injectable (380mg – depot) formulations
  - ◆ Injectable form – more effective in maintaining abstinence
- ◆ Limited data in pregnancy – case series / case reports

# Naltrexone in pregnancy

- ◆ When used for OUD an opioid abstinent period of 7-10 days is necessary => requires patients to go through detox followed by 7-10 period of sobriety
- ◆ Oral dosage: 25mg, if tolerated, one hour later administer 25mg, then 50mg daily. Half-life of oral naltrexone: 13 hours => rapid clearance, risk for maternal relapse in short period of time.
- ◆ Long active injectable every 4 weeks: 380mg.
- ◆ Common side effects: nausea, headache, nervousness, insomnia
- ◆ Caution for patients with hepatic impairment, renal impairment, hemophilia, having suicidal ideation, active depression.
- ◆ Recommended labs: CMP, CBC, UA, Hepatitis panel, UDS, BAL
- ◆ Naltrexone is contraindicated for acute hepatitis or liver failure.

## OBSTETRICS

### **Use of naltrexone in treating opioid use disorder in pregnancy**



Craig V. Towers, MD; Emily Katz, CPRS; Beth Weitz, WHNP; Kevin Visconti, MD

- ◆ 230 patients were studied: 121 received naltrexone, 109 received methadone or buprenorphine.
- ◆ Of the 87 women who received naltrexone to delivery, no neonates experienced symptoms of neonatal withdrawal.
- ◆ No increase in risk of birth anomalies: There were 23 first trimester exposures to Naltrexone, 11 who were receiving it already at conception, and 12 who were started, again no fetal anomalies occurred.
- ◆ Neonatal head circumference was not affected adversely.
- ◆ Of the women on Naltrexone, 12% had relapse, which was similar to the 15% of women who were on MAT with buprenorphine or methadone.

# Navigating Naltrexone

- ◆ May complicate post-operative pain management
- ◆ Discuss stopping at ~36 weeks or transitioning to PO formulation
- ◆ For elective C-section, may need to do washout period then restart 3-7 days after opioid abstinence
- ◆ If on long-acting injectable formulation, may need to transition to oral formulation in later stages of pregnancy in anticipation of delivery or procedures

# Open Discussion

- ◆ How do you counsel Jill about the maternal – fetal safety profile pertaining to some of the medication management considerations?

# Counseling: Naltrexone

Content Area	Counseling Discussion
Fetal concerns	<ul style="list-style-type: none"><li>• FDA Category C – potential teratogenic effects in animals but limited human data</li><li>• Appears to be well-tolerated at typical doses</li><li>• Abortive effects in animal studies at 5-18x the MHRD</li></ul>
Breastfeeding	Minimally excreted into breast-milk; considered safe overall
Pregnancy Impact	May complicate intraoperative and postoperative pain management during C/sections or with any surgical procedures

**Overall Recommendation: First-line therapy for pregnant and parenting people - benefit likely outweighs the risk**

# Counseling: Acamprosate

Content Area	Counseling Discussion
Fetal concerns	<ul style="list-style-type: none"><li>• FDA Category C – potential teratogenic effects in animals but very limited human data</li><li>• Possible hydronephrosis, and fetal malformation in rodent and rabbit models – not reproducible in humans</li></ul>
Breastfeeding	Unknown excretion; low risk expected due to low oral bioavailability; some diarrhea reported
Pregnancy Impact	Limited data; no significant complications reported


**Overall Recommendation: Second-line therapy for pregnant and parenting people - benefit likely outweighs the risk**

# Counseling: Disulfiram

Content Area	Counseling Discussion
Fetal concerns	<ul style="list-style-type: none"><li>• FDA Category C – potential embryocidal effects in animals – very limited human data</li><li>• Risk of cardiovascular collapse with alcohol use</li><li>• May amplify the teratogenic effects of alcohol mediated by acetaldehyde if ongoing use</li></ul>
Breastfeeding	<ul style="list-style-type: none"><li>• Manufacturer labeling recommends against breastfeeding</li><li>• Based on molecular structure, likely excreted into breast milk</li></ul>
Pregnancy Impact	Limited data; no significant complications reported

**Overall Recommendation: AVOID in pregnancy due to high-risk of side effects with continued alcohol use**

# Pharmacotherapy

	Mode of Action	Typical Dose	Use with Liver Disease	Approved for AUD
Naltrexone	Opioid agonist	50 mg daily PO 380 mg monthly IM	Early disease only	Y
Acamprosate	NMDA agonist	666 mg 3x/day	Use with caution	Y
Disulfiram	Acetaldehyde dehydrogenase inhibitor	200 mg daily	Contraindicated	Y
Baclofen	GABA -B agonist	10-25 mg 3x/daily	Yes	N
Topiramate	GABA agonist, calcium /sodium channel blocker	100 mg 2x/daily	Early disease only	N
Gabapentin	GABA - A agonist	900 mg 2x/daily	Uncertain	N
Varenicline	Acetylcholine receptor agonist	2 mg daily	Uncertain	N



# What does the future look like?

## REVIEW ARTICLE

### The Role of Glucagon-Like Peptide-1 Receptor Agonists in the Treatment of Alcohol Use Disorder

*Current Evidence and Future Directions*

- ◆ Mechanism – alters brain reward pathways
- ◆ Animal studies - decreased intake, inhibit relapse
- ◆ Limited human studies - decreased heavy drinking days



Tanguturi Yella SS, Kota Sessa Brahma Sree KS, Mahato SK. The Role of Glucagon-Like Peptide-1 Receptor Agonists in the Treatment of Alcohol Use Disorder: Current Evidence and Future Directions. *J Clin Psychopharmacol.* 2025 Jul-Aug 01;45(4):372-375.

# Final Takeaways/Summary

- ◆ All perinatal patients should be screened for alcohol use using a validated screening tool such as 5P's, TWEAK and TACE.
- ◆ Fetal alcohol spectrum disorder severity is linked to volume of alcohol consumed.
- ◆ Pregnant and parenting individuals presenting with acute alcohol intoxication or withdrawal are best served initially in an inpatient setting
- ◆ Intermediate to long acting benzodiazepine medications should be used for acute stabilization during withdrawal management followed by a gradual taper
- ◆ Outpatient maintenance medications should be used for long term management for maintaining sobriety in addition to continued use of behavioral health interventions

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