# Association of Perinatal Mood and Anxiety Disorders With Anesthesia-Related Complications in Cesarean Delivery Hospitalizations

Anna St. Denis, BS; David Hundley, DO; Hayden Jefferies, DO

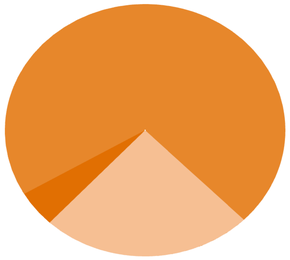
UTHealth Houston McGovern Medical School

SOAP Society for Obstetric Anesthesia and Perinatology

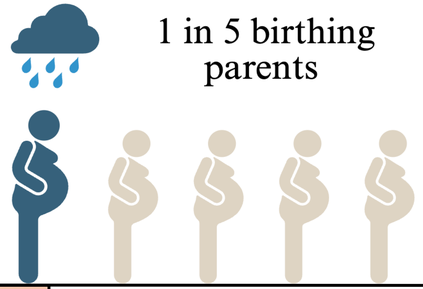
## Background[1,2]

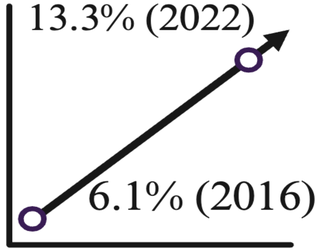
### What is PMAD?

- Unipolar depression 68.5%
- Bipolar disorder 22.6%
- Anxiety disorders 5.6%



### Prevalence

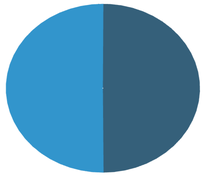



### So What?

Maternal Outcomes

Maternal Morbidity



Undiagnosed PMAD

### Knowledge Gap

- PMAD may influence pain, anxiety, and perioperative experience
- Obstetric anesthesia-specific evidence remains limited
- Association with ARC codes during cesarean hospitalization is not well defined

## Study Question

Are perinatal mood and anxiety disorders associated with higher odds of anesthesia-related complications during cesarean delivery hospitalizations?

1.Wong EF et al. JAMA Netw 2024 2. Wisner KL et al. JAMA Psychiatry 2024 3. Graphics Created in https://BioRender.com

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## Methods

**National Inpatient Sample**
2016-2022

(+) Cesarean Delivery

(+) Age 15-49

n = 8,087,376

**Analytic Cohort**

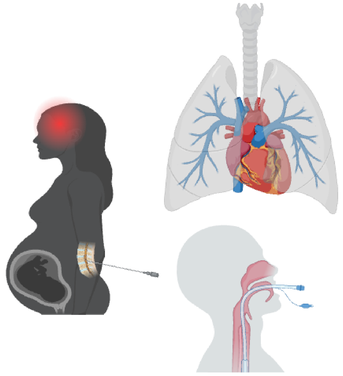
(-) Missing Covariates

**n = 7,765,786**

**Exposure**

PMAD
ICD-10-CM codes

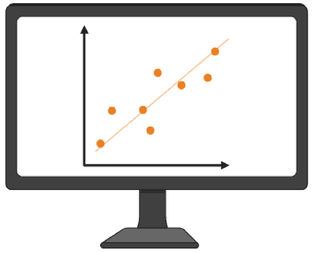
**Outcome**



ARC ICD-10 codes

neuraxial, airway, cardiopulmonary

**Adjusted Analysis**



Survey-weighted logistic regression

Adjusted for patient, hospital, and obstetric comorbidity factors

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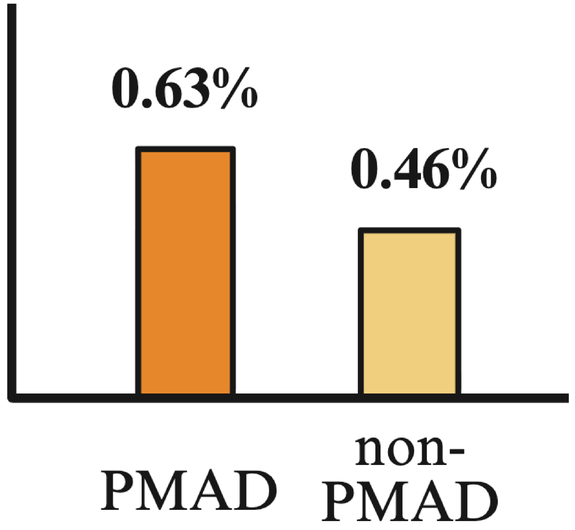
## Results

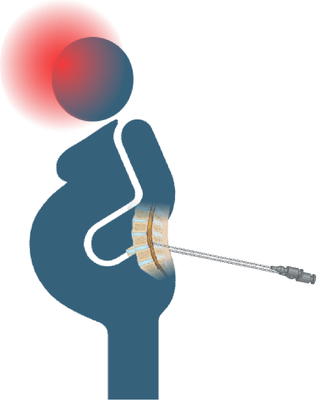
### Adjusted Association

**aOR 1.10**
**p=0.01**
**95% CI 1.02–1.19**

ARC codes: 0.63% vs 0.46%
(Δ 0.17%)

### ARC codes



**Most Common ARC Code: Neuraxial Headache**

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## Discussion[1,2]

Identify higher-risk patients early

Use trauma-informed anesthetic planning

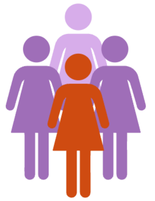
Optimize analgesia + follow-up

Focus on neuraxial headache

## Conclusion

10% higher adjusted odds of ARC codes

PMAD may identify a higher-risk obstetric anesthesia population



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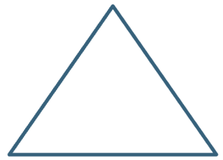
Small absolute difference is meaningful at population scale



1. Statement on Providing Psychological Support for Obstetric Patients. ASA 2024. 2. Guglielminotti J et al. Anesth Analg. 2019 3. Orbach-Zinger S et al. Eur J Anaesthesiol. 2021
4. Graphics Created in https://BioRender.com