

Antepartum Multidisciplinary Approach Improves Postpartum Pain Scores in Patients with Opioid Use Disorder

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SCAN ME

Objective

- Maternal opioid use disorder (OUD) in pregnancy is an increasing issue affecting women.
- Pain management is nuanced because maternal OUD patients may have opioid tolerance, opioid-induced hyperalgesia, and risk of return to use.
- This study aims to determine if prenatal anesthesia consultation for maternal OUD patients affects maternal and fetal outcomes.

Study Design

- Retrospective cohort study of pregnant patients diagnosed with maternal OUD who received prenatal care and delivered at an academic institution between January 2017 and July 2023.
- Exclusion criteria were pregnancies of mothers not diagnosed with maternal OUD.
- Subjects were divided into those who received prenatal anesthesia consultation and those who did not.
- The primary outcome was severe pain defined as ≥ 7 on a numerical rating scale of 1 through 10.
- Statistical analysis was performed using Chi-square, Fisher's exact, student t-test, and Mann-Whitney U tests with statistical significance defined as $p < 0.05$.

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Results

Table 1. Maternal demographics and obstetric outcomes associated with prenatal anesthesia consultation for maternal OUD.

	Anesthesia Consultation		p-value
	Yes (n=51)	No (n=273)	
Maternal Characteristics			
OUD-experienced provider	45 (88.2%)	151 (55.5%)	<0.01
Number of prenatal care visits	10.3 (\pm 2.9)	8.9 (\pm 3.9)	0.02
Government-assisted insurance	46 (90.2%)	225 (84.6%)	0.30
Drug use during pregnancy	11 (21.6%)	84 (30.9%)	0.18
MOUD Type			0.37
- Buprenorphine	26 (51.0%)	152 (56.1%)	
- Buprenorphine/naloxone	12 (23.5%)	42 (15.5%)	
- Methadone	13 (25.5%)	77 (28.4%)	
Caucasian	46 (90.2%)	246 (90.1%)	0.98
BMI (kg/m ²)	27.1 (\pm 6.0)	27.8 (\pm 6.1)	0.39
Advanced maternal age (\geq 35)	19 (37.3%)	72 (26.6%)	0.12
Obstetric and Neonatal Outcomes			
Cesarean delivery	22 (44%)	122 (45.2%)	0.88
Preterm birth	6 (12%)	43 (15.8%)	0.49
Postpartum PCEA use	18 (36%)	65 (24.2%)	0.08
Postpartum hospital opioid use	17 (34%)	79 (28.9%)	0.47
Severe pain (scale 7-10) PPD#0	13 (26%)	121 (45.3%)	0.01
Discharge opioid Rx	10 (20%)	37 (13.6%)	0.24
Postpartum relapse	1 (2.2%)	11 (4.7%)	0.43
Neonatal Opioid Withdrawal Syndrome (NOWS)	9 (18.4%)	54 (20.1%)	0.78
NOWS requiring morphine	12 (23.5%)	83 (30.2%)	0.32
NICU admission	22 (44.9%)	179 (66.1%)	0.01
Breastfeeding at discharge	18 (51.4%)	90 (44.1%)	0.42

*Data presented as N (%) or mean \pm SD

Results

- Cohort included 324 women with maternal OUD.
- 15.7% (N=51) received anesthesia consultation, 84.3% (N=273) did not.
- Prenatal anesthesia consultation were associated with statistically significant lower rates of severe pain (26% vs. 45.3%, $p=0.01$) in the first 24 hours postpartum, however this effect was not seen on subsequent postpartum days.
- NICU admissions were significantly fewer for patients who had anesthesia referral ($p=0.01$).
- Care with obstetric provider with training in maternal opioid care ($p < 0.01$) and higher number of prenatal care visits (10.3 vs. 8.9, $p=0.02$) were significantly associated with prenatal anesthesia consultation.

Conclusion

- Maternal OUD patients who received anesthesia consultation in pregnancy reported lower postpartum pain scores in the immediate postpartum period when anesthesia co-manages pain management with the primary OB team than those without consultation.
- Our data supports multidisciplinary care, including prenatal anesthesia consultation for pregnant OUD patients, can improve in immediate postpartum pain management.

Postpartum Severe Pain Scores (7-10)

