# Opioid Maintenance Therapy Prescription by Obstetricians and Postpartum Visit Compliance

Cassandra Heiselman DO MPH, Anna Fuchs DO, Omar Abuzeid MD, Mia Heiligenstein MD, Nicolelovino MD, Ashley Huber MD, Megan Gorman MD, Sha Sha BS, Kimberly Herrera MD, Diana Garretto MD, Lama Noureddine MD, Jennifer Choi MD, David Garry DO<sup>1</sup>

<sup>1</sup>Renaissance School of Medicine at Stony Brook University

## Introduction

- Women with opioid use disorders (OUD) experience increased rates of mental health crises and relapse rates postpartum, underscoring the importance of compliance with postpartum care
- Most drug-related pregnancy-associated deaths occur in the postpartum period
- AIM: to evaluate the effect of Obstetrician prescribed
   OMT and 6 wk postpartum (PP) visit compliance

# Methods

- This retrospective cohort study identified patients receiving OMT (defined as use of methadone or buprenorphine) from 2017 to 2020
- The primary outcome: attendance of the 6 wk PP visit.
- Prenatal care provider comparison was done between the OB prescribers and non-OB prescribers (e.g. methadone/pain clinic, PCP)
- Statistical analysis included Chi square tests, student t tests, and logistic regression modeling and was performed with significance levels of p<0.05 in R (v3.6.3)

# Results

- Of 199 women receiving OMT during pregnancy, 54.8%
   (109) were compliant with the 6 wk PP visit and 45.2%
   (90) were noncompliant
- Both groups demonstrated similarity in maternal age, race, marital status, employment, detox during pregnancy, active drug use in pregnancy, gestational age at delivery, and maternal comorbidities (Table 1)
- Among the 109 women compliant with their PP care, 83% received OMT from an OB prescriber vs 40% by a non-OB prescribers (p= <0.001)</li>
- In a regression model, postpartum OB OMT prescriber was an independent predictor of 6 wk PP visit compliance (OR 5.40; 95%CI: 2.35 13.36) (Table 2)
- OB OMT prescriber was not associated with adequacy of prenatal care, mode of delivery, or NICU admission

### Discussion

Women with OUD are more compliant with postpartum care if their OB provider prescribes their OMT, **however less than 2%** of OBGYNs who treat Medicaid enrollees are trained and able to prescribe buprenorphine.

Access to Opioid Maintenance Therapy (OMT) directly from a woman's OBSTETRIC provider may be a predictive factor in increasing PP visit compliance providing increased opportunities to screen, support, and treat this vulnerable population that are at a significantly elevated risk of complications.





# Tables

**Table 1: Patient Characteristics** 

|      |  | PP Compliance               |                             | n-          |
|------|--|-----------------------------|-----------------------------|-------------|
|      | Variable   | Yes*                        | No*                         | p-<br>value |
|      | Age (yrs)  | 30.3 (4.7)                  | 31.3 (4.9)                  | 0.16        |
| Race | <ul><li>Caucasian</li><li>AA</li><li>Other</li></ul> | 103 (56)<br>0 (0)<br>5 (55) | 81 (44)<br>3(100)<br>4 (44) | 0.32        |
|      | Multiparity  | 31 (44)                     | 39 (56)                     | 0.04        |
|      | Active Drug Use                                      | 22 (50)                     | 22 (50)                     | 0.47        |
| OMT  | <ul><li>Buprenorphine</li><li>Methadone</li></ul>    | 86 (64)<br>23 (36)          | 49 (36)<br>41 (64)          | 0.0004      |
|      | High Dose OMT  | 72 (63)                     | 43 (37)                     | 0.014       |
|      | Delivery GA(wks)                                     | 38 (3.1)                    | 37 (2.6)                    | 0.37        |
|      | Maternal<br>Co-morbidities                           | 26 (57)                     | 20 (43)                     | 0.92        |

\*Displayed as n(%) or mean(SD)

Table 2: Predication of Postpartum Compliance

| Variable                       | Odds<br>Ratio | 95% CI       | p-value |
|--------------------------------|---------------|--------------|---------|
| OB OMT<br>Provider             | 5.40          | 2.35 - 13.36 | <0.001  |
| OMT Type                       | 2.40          | 0.73 - 8.46  | 0.16    |
| High Dose<br>OMT               | 0.59          | 0.18 – 1.78  | 0.36    |
| Adequate PNC                   | 0.68          | 0.35 – 1.32  | 0.26    |
| Prenatal Care<br>Provider Type | 0.66          | 0.31 – 1.42  | 0.29    |
| Multiparity                    | 0.50          | 0.24 - 1.00  | 0.05    |

# References

- 1. Smid, Marcela C. et al. Early lessons from maternal mortality review committees on drug-related deaths—time for obstetrical providers to take the lead in addressing addiction. AJOG MFM, Volume 2, Issue 4, 100177
- Schiff D.M.Nielsen T.Terplan M.et al.Fatal and nonfatal overdose among pregnant and postpartum women in Massachusetts. Obstet Gynecol. 2018; 132: 466-474
- 3. Metz T.D.Rovner P.Hoffman M.C.Allshouse A.A.Beckwith K.M.Binswanger I.A. Maternal deaths from suicide and overdose in Colorado, 2004-2012. *Obstet Gynecol.* 2016; **128**: 1233-1240
- 4. Smid M.C.Stone N.M.Baksh L.et al.Pregnancy-associated death in Utah: contribution of drug-induced deaths. *Obstet Gynecol.* 2019; **133**: 1131-1140
- 5. Nguemeni Tiako MJ, Culhane J, South E, Srinivas SK, Meisel ZF. Prevalence and Geographic Distribution of Obstetrician-Gynecologists Who Treat Medicaid Enrollees and Are Trained to Prescribe Buprenorphine. *JAMA Open.* 2020;3(12):e2029043.