



**UW PACC**

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

# MOOD STABILIZERS IN PREGNANCY

AMRITHA BHAT, MD, MPH

UW DEPARTMENT OF PSYCHIATRY  
AND BEHAVIORAL SCIENCES



# GENERAL DISCLOSURES

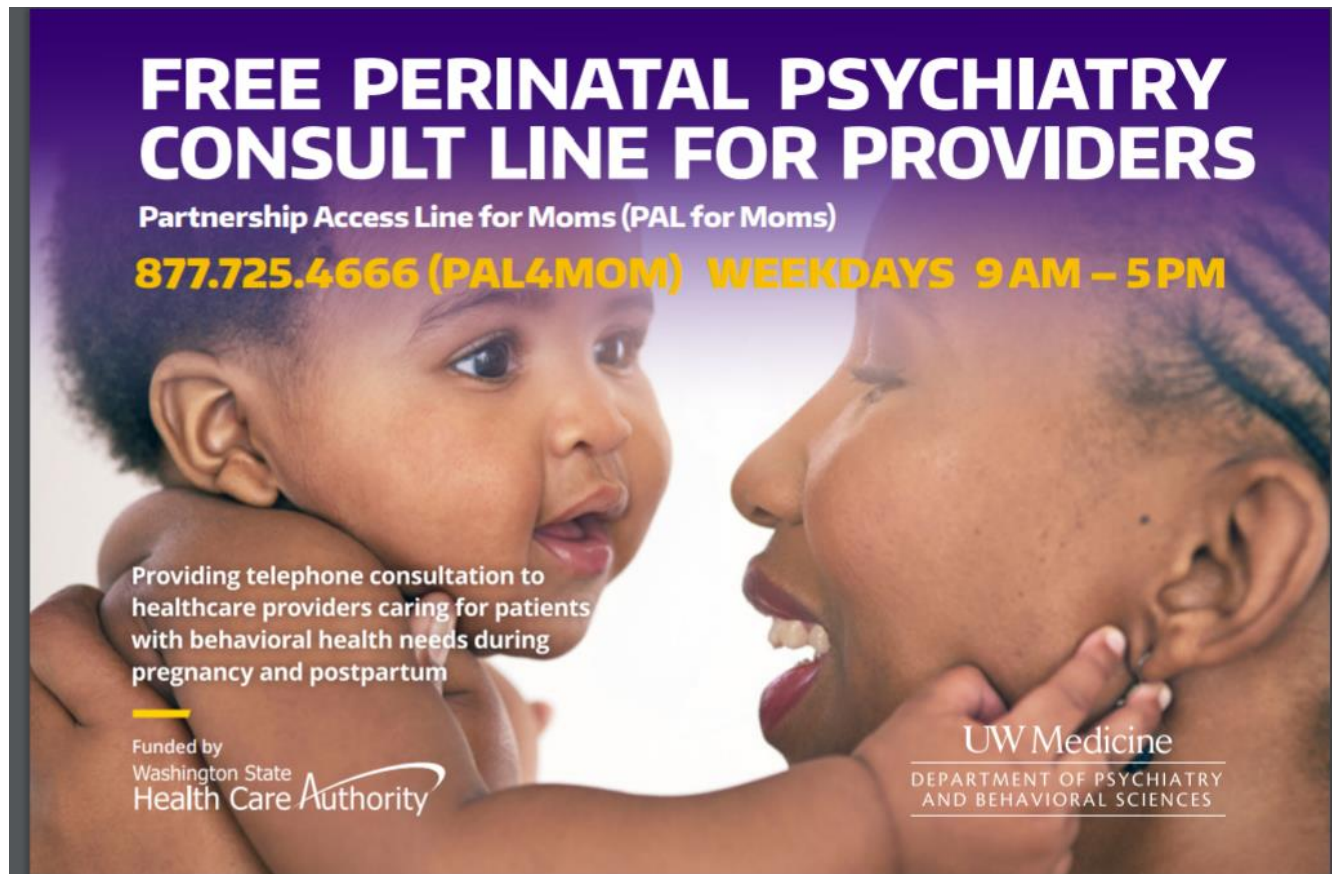
The University of Washington School of Medicine also gratefully acknowledges receipt of educational grant support for this activity from the Washington State Legislature through the Safety-Net Hospital Assessment, working to expand access to psychiatric services throughout Washington State.

# GENERAL DISCLOSURES

UW PACC is also supported by Coordinated Care  
of Washington

# SPEAKER DISCLOSURES

## ✓ PAL4MOMS



**FREE PERINATAL PSYCHIATRY  
CONSULT LINE FOR PROVIDERS**

Partnership Access Line for Moms (PAL for Moms)

**877.725.4666 (PAL4MOM) WEEKDAYS 9 AM – 5 PM**

Providing telephone consultation to  
healthcare providers caring for patients  
with behavioral health needs during  
pregnancy and postpartum

Funded by  
Washington State  
Health Care Authority

UW Medicine  
DEPARTMENT OF PSYCHIATRY  
AND BEHAVIORAL SCIENCES

# PLANNER DISCLOSURES

The following series planners have no relevant conflicts of interest to disclose:

Mark Duncan MD

Barb McCann PhD

Rick Ries MD

Kari Stephens PhD

Cameron Casey

Betsy Payn

Diana Roll

Cara Towle MSN RN

Anna Ratzliff MD PhD has received book royalties from John Wiley & Sons (publishers).

# OBJECTIVES

1. Summarize reproductive safety information for mood stabilizers
2. Understand recommended medication management approaches for bipolar disorder in pregnancy
3. Apply knowledge of risks of untreated bipolar disorder and risks of medications to informed consent discussion

# CASE

- 35 yo married female G1 at 16 weeks gestation presents with depression, PHQ-9 of 12, no suicidal ideation. She has had 1 depressive episode in the past. She tells you she did not tolerate sertraline or citalopram. When asking for more details on her response to sertraline and citalopram she tells you she became very agitated, felt like she was on speed, and stayed up all night for 4 nights, cleaning the house. What would you recommend?
  - A. Lamotrigine
  - B. Lithium
  - C. Venlafaxine
  - D. Watchful waiting

# LAMOTRIGINE IN PREGNANCY

- Not inferior to lithium in the prevention of severe PP episodes
- Prospective study from teratology service (median dose 200 mg/d): No increase in MCM
- No neurodevelopmental disorders in children exposed to in utero lamotrigine (up to 6 years)
- 29% need dose increase during pregnancy (2 -3 times)
- Check pre pregnancy euthymic level; monitor monthly

Diav Citrin 2017; Dolk 2016 ; Pariente 2017



# LAMOTRIGINE IN THE POSTPARTUM PERIOD

- If dose was increased during pregnancy, taper to pre pregnancy dose within 2 weeks:
  - decrease by 25% immediately PP
  - decrease every 3 -4 days until prepregnancy dose is reached
- If breastfeeding, infant doses are 6% to 50%; no contraindication to breastfeeding

# CASE

- 25 yo female with diagnosis of bipolar disorder type 1 , onset at age 14, 5 hospitalizations for mania or severe depression with suicidal ideation, stable on 1200 mg lithium for the past year. She wants to get pregnant in the next 6 months. What would you recommend?
  - A. Cross taper to lamotrigine
  - B. Continue lithium
  - C. Stay off lithium for the first trimester
  - D. Postpone thinking about pregnancy

# LITHIUM: CONGENITAL MALFORMATIONS

- ? Ebstein's anomaly
  - Baseline 1 in 20,000; Lithium 1 in 1000
- Risk for cardiac malformations: adj RR of 1.65 (95% CI, 1.02-2.68)
- No significant difference in major cardiac malformations ( 2.1% (0.5%-3.7%) vs 1.6% (1.0%-2.1%).
- Major malformations higher than the general population (7.4% vs 4.3%)

Patorno 2017; Munk Olson 2018

# LITHIUM AND PREGNANCY OUTCOMES

- Increased risk of miscarriage?
- Not associated with any predefined pregnancy complications or delivery outcomes.
- Increased risk for neonatal readmission within 28 days of birth for lithium (pooled prevalence 27.5% [95% CI 15.8-39.1] vs 14.3% [10.4-18.2])

Poehls et al, 2020

# PRESCRIBING LITHIUM IN PREGNANCY

- If possible, reduce dose in first trimester
- Considerations with hyperemesis
- Twice daily dosing to minimize peak levels/ side effects
- Blood level monitoring – monthly upto 34 weeks; weekly thereafter
- Fetal anomaly US (fetal cardiac scanning) at 16 – 20 weeks GA

Wesseloo 2017

# LITHIUM AND DELIVERY

- Higher lithium levels at delivery associated with:
  - Lower Apgar scores
  - Longer hospital stays
  - More CNS, neuromuscular complications
- Lithium level when patient presents for delivery and 24 hours after delivery
- Adequate hydration; Considerations for pain relief
- Cord blood Li, TSH, Free T4
- Pre-conception dose once medically stabilized

Newport et al., Am J Psychiatry, 2005; Deligiannidis 2017; Poels et al 2018

# LITHIUM USE POSTPARTUM

- Consider a higher target therapeutic lithium level for the 1<sup>st</sup> PP month (0.8-1mmol/L)
- Twice weekly lithium blood levels in 1<sup>st</sup> 2 PP weeks
- Breastfeeding generally not recommended

# CASE

- 35 yo married female G1 at 6 weeks gestation presents with severe depression, PHQ-9 of 21, no suicidal ideation. She has had 5 depressive episodes in the past, one leading to psychiatric hospitalization for suicidal ideation, and 2 episodes of hypomania. What would you recommend?
  - A. Lamotrigine
  - B. Lithium
  - C. Venlafaxine
  - D. Quetiapine



# SECOND GENERATION ANTIPSYCHOTICS AND MALFORMATIONS

- No increased risk:  
Aripiprazole, Olanzapine, Quetiapine
- Minor increased risk:  
Risperidone, Paliperidone (RR 1.26)
- Insufficient data:  
Amisulpiride, Asenapine, Lurasidone,  
Sertindole

# SECOND GENERATION ANTIPSYCHOTICS AND PREGNANCY / NEONATAL OUTCOMES

- No increased risk of:
  - Miscarriage
  - Stillbirth
  - SGA
- GDM more common in women taking quetiapine (RR=1.28, 95% CI=1.01-1.62) and olanzapine (RR=1.61; 95% CI=1.13-2.29)
- Neonates - feeding difficulty, hypotonia, hypertonia, tremor, agitation, somnolence, respiratory distress
- No delays in cognitive motor or social emotional development at 6 and 12 months
- Not possible to stratify on individual drug level
- Most are compatible with breastfeeding

Damkier et al 2018; Clark et al 2018

# NON MEDICATION INTERVENTIONS

- Sleep
- Light therapy
- Post discharge IOP
- Parenting support
- IPSRT
- In home services



# RULES OF THUMB IN PRESCRIBING FOR PERINATAL MENTAL HEALTH DISORDERS

- Changes to meds to be made before pregnancy if possible
- Ideally patient should be psychiatrically stable for at least three months before attempting to conceive
- Use medications with more safety information
- Minimize number of exposures
- Use a team approach
- Be supportive if the patient goes against your recommendations
- Recommend folic acid prenatally
- Don't forget non – medication factors!

# KEY QUESTIONS

- Diagnostic clarification
- Treatment preferences
- Preconception counseling: timeline
- Prior medications, prior periods off medication
- If already pregnant, gestational age?
- Severity of illness
- Access to psychotherapy and social support

# ASSESSING SEVERITY OF ILLNESS

- Age of onset
- Multiple episodes (> 3 or 4)
- Recovery between episodes
- Abrupt onset of symptoms
- Psychotic mania / severe depression
- Hospitalization / suicidal ideation
- Past peripartum episodes
- Comorbidity

# EFFECTS OF THE DISEASE; EFFECTS OF THE TREATMENT

Bipolar Disorder

Anti-psychotics;  
Mood Stabilizers



- Poor prenatal and self care, subs abuse, fetal abuse or neonaticide (PPP)
- Prematurity, microcephaly, neonatal hypoglycemia
- Longer term effects due to poor bonding

- GDM, higher rates of CS
- LBW, preterm
- Teratogenicity
- Neonatal syndromes
- Long term neurocognitive outcomes

# REFERENCES

- Clark, C. T., & Wisner, K. L. (2018). Treatment of Peripartum bipolar disorder. *Obstetrics and Gynecology Clinics*, 45(3), 403-417.
- Cohen JM, Huybrechts KF, Patorno E, Desai RJ, Mogun H, Bateman BT, Hernández-Díaz S. Anticonvulsant Mood Stabilizer and Lithium Use and Risk of Adverse Pregnancy Outcomes. *J Clin Psychiatry*. 2019 Jun 18;80(4).
- Damkier, P., & Videbech, P. (2018). The safety of second-generation antipsychotics during pregnancy: a clinically focused review. *Cns Drugs*, 32(4), 351-366.
- McAllister-Williams, R. H., Baldwin, D. S., Cantwell, R., Easter, A., Gilvarry, E., Glover, V., ... & Khalifeh, H. (2017). British Association for Psychopharmacology consensus guidance on the use of psychotropic medication preconception, in pregnancy and postpartum 2017. *Journal of Psychopharmacology*, 31(5), 519-552.
- Munk-Olsen, T., Liu, X., Viktorin, A., Brown, H. K., Di Florio, A., D'Onofrio, B. M., ... & Larsson, H. (2018). Maternal and infant outcomes associated with lithium use in pregnancy: an international collaborative meta-analysis of six cohort studies. *The Lancet Psychiatry*, 5(8), 644-652.
- Pariente, G., Leibson, T., Shulman, T., Adams-Webber, T., Barzilay, E., & Nulman, I. (2017). Pregnancy outcomes following in utero exposure to lamotrigine: a systematic review and meta-analysis. *CNS drugs*, 31(6), 439-450.
- Poels, E. M., Kamperman, A. M., Vreeker, A., Gilden, J., Boks, M. P., Kahn, R. S., ... & Bergink, V. (2020). Lithium Use during Pregnancy and the Risk of Miscarriage. *Journal of Clinical Medicine*, 9(6), 1819.
- Sharma, V., Sharma, P., & Sharma, S. (2020). Managing bipolar disorder during pregnancy and the postpartum period: a critical review of current practice. *Expert Review of Neurotherapeutics*, 20(4), 373-383.
- Viguera AC, Whitfield T, Baldessarini RJ, Newport DJ, et al. Risk of Recurrence in Women With Bipolar Disorder During Pregnancy: Prospective Study of Mood Stabilizer Discontinuation. *Am J Psychiatry* 2007; 164:1817-1824.



# RESOURCES

- <https://mothertobaby.org/>
- Lactmed:  
<https://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm>
- MGH Center for Women's Mental Health:  
<https://womensmentalhealth.org/>
- <https://interpersonalpsychotherapy.org/>

# PERINATAL PSYCHIATRY CONSULTATION LINE / PAL FOR MOMS

## FREE PERINATAL PSYCHIATRY CONSULT LINE FOR PROVIDERS

Partnership Access Line for Moms (PAL for Moms)

**877.725.4666 (PAL4MOM) WEEKDAYS 9 AM – 5 PM**

Providing telephone consultation to  
healthcare providers caring for patients  
with behavioral health needs during  
pregnancy and postpartum

Funded by  
Washington State  
Health Care Authority

UW Medicine

DEPARTMENT OF PSYCHIATRY  
AND BEHAVIORAL SCIENCES