# <u>Psychopharmacology in Pregnancy</u>

### Maria Muzik, MD, MSc

Professor of Psychiatry and Obstetrics and Gynecology Department of Psychiatry University of Michigan

## Sheila Lahijani, MD

Associate Clinical Professor Division of Medical Psychiatry Stanford University School of Medicine

## Michelle Riba, MD, MS

Professor of Psychiatry Department of Psychiatry University of Michigan

**Introduction:** The pharmacological management of mental health disorders in perinatal women, that is, during pregnancy and in the first year postpartum while potentially breastfeeding, is highly complex and requires specialized knowledge regarding medication efficacy and safety.

We will highlight the high prevalence of the most common mental health disorders during the perinatal period, which are depression, bipolar illness, anxiety disorders, OCD, posttraumatic stress disorder, ADHD, and substance use disorders. We will briefly review the first line non-pharmacological treatments for mild to moderate illness, and then elaborate on the role of psychotropic medicines for moderate to severe mental health conditions during this time period. We will provide guidance regarding medication selection with consideration of side effects for the mother, potential adverse effects on the pregnancy, the fetus, the delivery, and on long-term child development. This will include a discussion on personalized risk-benefit analysis accounting for a broad range of considerations including weighing the risk of untreated illness versus the risk of psychotropic side effects to mother and child. We will provide the participant, with foundational knowledge needed to support the patient and family in this complex decision-making process. We will review physiological changes relevant to pregnancy and lactation that impact pharmacokinetics and dosing and consider the role of other medical co-morbidities as well, including cancer. Ultimately, we aim to offer comprehensive, user-friendly, state-of the art information on medication management in perinatal mental health care.

# **Learning Objectives:**

- To explain the general risks of psychopharmacotherapy in pregnancy
- To understand how to counsel women with mental health disorders before, during and after pregnancy
- To describe the current evidence of the reproductive safety of antidepressants, mood stabilizers, and antipsychotics

**Methods:** Interactive talk, presentations by participants, case discussions in small groups and with all participants

#### References:

Muzik M, Hamilton S: Antidepressants during pregnancy?: What to consider when weighing treatment with antidepressants against untreated depression Matern Child Health J 20(11): 2268-2279, 2016.

Muzik M, Shaw S, Grigoriadis S, Deligiannidis KM, Wieck A, Chandra PS, Murugesan M, Poland C & Renn-Bugai N: Pharmacologic Management of Reproductive Psychopathology. Tasman's Psychiatry, 5th Edition, Eds:T asman, Riba, Schulze, Ng, Alfonso, Alarcon, Tosevski, Kanba, Ndetei Springer, 2022.

Gotlib D, Perelstein E, Kurlander J, Zivin K, Riba M, Muzik M: Guideline adherence for mentally ill reproductive-aged women on valproic acid: A retrospective chart review J Clin Psychiatry 77(4): 527-534, 2016.

Lebin LG, Novick AM. Selective Serotonin Reuptake Inhibitors (SSRIs) in Pregnancy: An Updated Review on Risks to Mother, Fetus, and Child. Curr Psychiatry Rep. 2022 Nov;24(11):687-695. doi: 10.1007/s11920-022-01372-x. Epub 2022 Oct 1. PMID: 36181572; PMCID: PMC10590209.

Clark CT, Newmark RL, Wisner KL, Stika C, Avram MJ. Lithium Pharmacokinetics in the Perinatal Patient With Bipolar Disorder. J Clin Pharmacol. 2022 Nov;62(11):1385-1392. doi: 10.1002/jcph.2089. Epub 2022 Jul 13. PMID: 35620848; PMCID: PMC9796861.

Betcher HK, Montiel C, Clark CT. Use of Antipsychotic Drugs During Pregnancy. Curr Treat Options Psychiatry. 2019 Mar;6(1):17-31. doi: 10.1007/s40501-019-0165-5. Epub 2019 Jan 30. PMID: 32775146; PMCID: PMC7410162.

Erickson N, Julian M, Muzik M: Perinatal depression, PTSD, and trauma: Impact on mother-infant attachment and interventions to mitigate the transmission of risk International Review of Psychiatry(Abingdon, England) 31(3): 245-263, 2019. PM30810410.

Schwab, R., Anic, K., & Hasenburg, A. (2021). Cancer and pregnancy: A comprehensive review. *Cancers*, *13*(12), 3048.

**Keywords:** perinatal, pregnancy, postpartum, psychotropics, treatment guidelines, risk-benefit analysis, safety profiles, breastfeeding, counseling