Bipolar Disorder in Pregnancy & Postpartum Psychosis

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Learning Objectives

By the end of this session, participants will be able to:

- Describe the prevalence and risks of bipolar disorder (BPD) in pregnancy.
- Recognize the diagnosis of bipolar disorder during pregnancy.
- Explain the roles of depression and bipolar disorder screening.
- Summarize pharmacological treatment options.
- Recognize the diagnosis of postpartum psychosis.
- Outline management and treatment of postpartum psychosis.
- Identify prevention strategies.

Bipolar Disorder Pregnancy & Postpartum

- Approximately 2.8% of U.S. adults have bipolar disorder.
- Pregnancy with proper treatment: low relapse risk (~5%).
- Postpartum relapse risk: high (~33%).
- Begin preparation at least six months before conception to ensure stability, switch to safer medications, and manage psychosocial stressors.
  - Impulsivity and inability to plan are hallmarks of BPD.
  - Nearly 50% of pregnancies in the U.S. are unplanned.
  - 80% of patients of childbearing age will have a pregnancy at some point.

Diagnosis of Mania or Hypomania

A distinct period of abnormally elevated, expansive, or irritable mood with increased energy characterized by at least **3 of the following symptoms**:

- Grandiosity or inflated self-esteem
- Decreased need for sleep (e.g., feels fine after 3 hours)
- Pressured speech or more talkative than usual
- Flight of ideas or subjective experience of racing thoughts
- Distractibility to unimportant external stimuli
- Increased goal-directed activity
- Excessive activities with painful consequences (spending, sex, etc.)

(Note: If mood is only irritable, require 4 symptoms.)

Bipolar Disorder = Mania or Hypomania + Depression
What's the difference between Hypomania & Mania?

Major Depression

- At least 2 weeks of depressed mood or loss of interest/pleasure
- Plus 4 or more of the following:
  - Weight change ≥5%
  - Insomnia or hypersomnia
  - Psychomotor agitation or retardation
  - Fatigue
  - Feelings of worthlessness or excessive guilt
  - Impaired concentration
  - Recurrent thoughts of death or suicide

Feature	Hypomania	Mania
Duration	≥4 days	≥7 days or any duration if hospitalized
Impairment	No marked impairment in functioning	Marked impairment or psychosis
Hospitalization	Not required	Often required to prevent harm or address psychosis

Screening for Bipolar Disorder in Pregnancy

- Ask if the patient has ever been diagnosed with bipolar disorder or depression. If yes, please expand.
- USPSTF recommends screening all pregnant women for depression:
  - Edinburgh Postnatal Depression Scale
  - PHQ-9
- If the patient screens positive, administer the 15-item Mood Disorder Questionnaire (MDQ) as a starting point.
- Review substance use and medication history to rule out other causes.
- Evidence supports this approach. Studies suggest bipolar disorder is present in up to 20% of perinatal patients who screen positive for depression.

Treatment of Bipolar Disorder During Pregnancy

Treatment is guided by randomized trials (excluding pregnant patients), observational studies, birth registries, and clinical experience.

Symptomatic Treatment:

- First-line:
  - Antipsychotics (e.g., Haloperidol 5–10 mg daily)
  - EPS symptoms managed with diphenhydramine
- **If treatment-resistant:**
  - Olanzapine > Quetiapine > Risperidone
  - Lithium monotherapy
  - Electroconvulsive Therapy (ECT) (6–12 treatments)
  - Lithium + Antipsychotic if ECT contraindicated

Maintenance Treatment:

- Lamotrigine
- Second-generation antipsychotics
- Lithium

General Principle:

- Use monotherapy and the lowest effective dose when possible.

Treatment of Bipolar Disorder during Pregnancy

For patients who are taking medications at conception and are clinically stable, it is generally preferable to continue the same regimen rather than switch medications.

Observational studies and registry data show that polypharmacy is common: in one study of 54 pregnant patients, 65% were treated with more than one psychotropic medication (e.g., antipsychotics, lithium, and/or antidepressants). The same principle applies to preconception depression management while striving for the minimal effective dose.

Note: Valproate should generally be avoided due to high teratogenic risk.

To reduce teratogenic and postnatal risks:

- Use drugs with fewer known risks
- Monotherapy whenever possible
- Minimal effective dose

Treatment of Insomnia in Bipolar Disorder during Pregnancy

Insomnia is a significant risk factor for relapse.

Consider small doses of adjunctive benzodiazepines on an as-needed basis for as short a time as possible.

Preferred Options:

- Lorazepam: Preferred for no active metabolites and may cross the placenta at a lower rate.
- Clonazepam: Preferred if a longer half-life is needed.

Generally Avoid:

- Alprazolam: Short half-life can cause rebound anxiety.
- Diazepam and Chlordiazepoxide: Longer half-lives and higher risk of accumulation and neonatal toxicity.

Dosing Examples:

- Lorazepam 0.5–1 mg
- Clonazepam 0.5–1 mg

Lithium and Pregnancy – The Risks

Risks:

- Major malformations: **4–12%**, mainly cardiac anomalies
- **Ebstein's anomaly: ~0.1%**
  - Lower than older estimates

Dose-dependent risk:

- No significant increase at ≤600 mg daily
- Risk triples at >900 mg daily
- Developmental outcomes generally appear normal

Management:

- Use the **lowest effective dose**
- Fetal echocardiogram at **18–24 weeks**
- Monitor lithium levels:
- Monthly during pregnancy
- Weekly after **32 weeks**
- Lithium clearance increases significantly in the **third trimester**, requiring dose adjustments
- Reduce to pre-pregnancy dose postpartum

Other Mood Stabilizers in Pregnancy

Valproate

Avoid if at all possible due to high teratogenic risk (6–20%).

- High risk of neural tube defects (NTD) linked to antifolate effects.
- Even high-dose folate supplementation (4 mg daily) does not reliably prevent NTD.

Also associated with:

- Lower IQ
- Poor school performance
- Increased risk of autism

Lamotrigine (25–200 mg daily)

- Generally safe, with no significant increase in birth defects.

Dosing Adjustments:

- Clearance can increase by up to 250% during pregnancy.
- Dose increases of ~20–25% from preconception baseline are often needed to maintain euthymia.

Titration Considerations:

- Requires slow titration to reduce the risk of Stevens-Johnson syndrome.

Antipsychotics During Pregnancy

General Safety:

- Almost all antipsychotics are compatible with pregnancy.
- Some studies show a slightly increased rate of birth defects, but no consistent patterns; underlying illness or confounding factors may contribute.

Metabolic Risks:

- Some second-generation antipsychotics (especially **olanzapine**) increase gestational diabetes risk.
- Elevated maternal glucose can lead to **fetal macrosomia**.

Second-Generation Antipsychotics:

- Generally not associated with major malformations.

Dosing Principles:

- Use the lowest effective dose to reduce neonatal sedation, jitteriness, and extrapyramidal symptoms.

Preferred Agents (most data available):

- Haloperidol
- Olanzapine
- Risperidone
- Quetiapine

Agents with Limited Data (minimize use):

- Asenapine
- Paliperidone
- Lurasidone
- Clozapine

FDA Use in Pregnancy Ratings

The traditional **A/B/C/D/X FDA categories have been phased out**.

Do **not** base medication decisions solely on these legacy ratings.

Large-scale human data are **more reliable**.

Risk–Benefit Considerations:

- Weigh the risks of treatment.
- Weigh the risks of no treatment (untreated mood episodes).

Key Clinical Point:

- If mood stabilizers are discontinued, there is an **~85% chance of relapse within 9 months**, whether pregnant or not.
  - *(Viguera AC et al, Am J Psychiatry 2007)*

Documentation – Medicolegal Risk

"A thorough review of the available scientific literature to date was conducted, including the risks of no treatment to both the mother and the baby, and the current known risks of medication to the fetus both during pregnancy and the postpartum period. The patient was informed that no medication is approved for use during pregnancy but that in some cases the benefits of treatment to both the mother and the fetus outweigh the current known or unknown risks of medication use during pregnancy and the postpartum period. The patient states her understanding of this and has chosen to start or continue treatment."

- Dr. Horst, Baylor College of Medicine

Case Presentation

You receive a call from the OB/GYN service about a 25-year-old woman who delivered a baby girl two days earlier. She seemed to be doing well the day after delivery but is now refusing to see or care for her daughter. She has been unable to sleep and appears confused. You go to her bedside and find her wandering around her room, and you're unable to engage her in a meaningful interview. From speaking to her husband, you find that she was previously diagnosed with bipolar disorder (BD) in her early 20s but felt stable and stopped mood stabilizers about a year ago.

Postpartum Psychosis -- Overview

Psychiatric emergency affecting **1–2 per 1,000 new mothers**

- *(VanderKruik R et al, BMC Psychiatry 2017)*

Symptoms typically begin within the **first 4 weeks postpartum** and often develop **suddenly over a single day**.

Clinical Features:

- Delirium-like confusion with fluctuating consciousness
- Manic or depressive episodes
- Delusions and hallucinations
- Disorganized thinking and behavior
- Obsessive thoughts about the newborn

Patients with bipolar disorder are **23 times more likely to be hospitalized psychiatrically** in the first month postpartum compared to any other time in life

- *(Munk-Olsen T et al, JAMA 2006)*

Primary Risk Factor:

- History of bipolar disorder (**20–30% of cases**)

Presentation of Postpartum Psychosis

Typically develops within the **first 4 weeks postpartum**.

Delirium-like symptoms:

- Confusion
- Fluctuating consciousness

Additional features:

- Delusions (often involving the infant, e.g., belief the baby is possessed)
- Hallucinations
- Manic or depressive episodes
- Obsessive intrusive thoughts about the newborn

Infanticide Risk:

- In extreme cases, mothers may believe harming the baby is necessary ("altruistic homicide").
  - Estimated infanticide risk **~4%**
    - *(Brockington I, Arch Womens Ment Health 2017)*

Delusions and Psychosis in Postpartum Psychosis

Delusion:

A false belief held despite clear evidence to the contrary.

Characterized by:

- Strong conviction
- Lack of doubt
- Incorrigibility

Psychosis:

- A mental state where a person loses touch with reality.
- May include:
- Hallucinations
- Delusions
- Disordered thinking

Not a disease itself—psychosis is a syndrome that occurs in various mental health conditions.

Post-Partum Psychosis vs Post-Partum Obsessive Thoughts

Differences Between Postpartum Psychosis and Postpartum Obsessive Thoughts	
Postpartum psychosis	**Postpartum obsessions**
• Rarely distressed by thoughts • Content often bizarre or unusual • Desire to act on thoughts • Feeling of being compelled to act • Example: "My baby is possessed by the devil, and I must kill him in order to save him"	• Thoughts are unwanted and distressing • Avoidance of certain objects or being with the newborn; no desire to act on thoughts • Can engage in compulsive behavior (checking, seeking reassurance) to ease distress • Example: "I am a bad mom, and I am worried that I will drop my baby out the window"

Source: Osborne LM, *Obstet Gynecol Clin North Am* 2018;45(3):455–468.

Differential Diagnosis

Psychiatric:

- Postpartum obsessions (ego-dystonic intrusive thoughts)
- Substance use or withdrawal
- Medication side effects (e.g., steroid-induced mania)

Delirium and Medical Causes:

- Delirium due to infection, metabolic derangements
- Thyroiditis (postpartum thyroid dysfunction)
- Lupus flare
- Autoimmune encephalitis
- Sheehan's syndrome (postpartum pituitary necrosis)

Risk Factors for Postpartum Psychosis

History of Bipolar Disorder:

- Strongest predictor of postpartum psychosis
  - Implicated in **20–30% of cases**
- Up to **20–30% of postpartum patients with known BD** will experience an episode
  - *(Osborne LM, Obstet Gynecol Clin North Am 2018)*

Additional Risk Factors:

- Prior episode of postpartum psychosis
- Family history of bipolar disorder
- Significant sleep deprivation
- Primiparity (first childbirth)

Treatment of Postpartum Psychosis

Immediate inpatient admission is required.

Initial Treatment (Treat as psychotic mania):

- Antipsychotic
- Mood stabilizer (Lithium often most effective)
- Benzodiazepine for agitation

Family Education:

- Importance of sleep
- Medication adherence
- Continuous supervision until recovery

After Remission:

- Taper antipsychotic and benzodiazepine
- Continue lithium for maintenance

Consider Electroconvulsive Therapy (ECT) for severe or refractory cases

Prophylaxis for Postpartum Psychosis

Patients with bipolar disorder should begin **prophylactic treatment immediately postpartum** if not already on a mood stabilizer.

Preferred Options:

- Lamotrigine
- Lithium (requires careful monitoring and dose adjustments)

For patients with **prior postpartum psychosis:**

- Consider starting lithium prophylactically **at 32–36 weeks gestation**

Important Note:

- Postpartum psychosis can present within days.
- Lithium requires **5–7 days** to reach steady-state levels.

Case Continued

You transfer the patient to the psychiatric unit and initiate lithium 1200 mg at bedtime and olanzapine 5 mg twice daily, with lorazepam 1 mg as needed for sleep or agitation. Over the next five days she increasingly returns to her baseline and acknowledges she gave birth to a healthy girl. The unit provides a breast pump so she can collect breast milk for the father to take home for the baby.

Treatment

Immediate inpatient admission is required.

Treatment Approach:

- Treat as psychotic mania:
  - Antipsychotic
  - Mood stabilizer
  - Benzodiazepine for agitation

Lithium Effectiveness:

- Compared to other mood stabilizers, **lithium appears most effective**
  - *(Bergink V et al, Am J Psychiatry 2016)*

Prognosis:

- With treatment, **98% of patients recover within seven weeks**
  - *(Bergink V et al, Am J Psychiatry 2015)*

Treatment Continued – Refractory cases

Family Education:

- Emphasize:
  - Importance of sleep
  - Medication adherence
  - Consistent follow-up with psychiatry and obstetrics

The mother should not be left alone with the child until symptoms have fully resolved.

After Remission:
Taper the antipsychotic and benzodiazepine. Continue lithium monotherapy for at least **9 months**.

If there is concern for underlying bipolar disorder, continue lithium with close monitoring.

Consider Electroconvulsive Therapy (ECT):
Indicated if no response to pharmacotherapy after **2–4 weeks**.
Especially appropriate for patients with:

- Catatonia
- Severe agitation
- Refusal to eat or drink.

Breastfeeding Considerations in Postpartum Psychosis

- **Sleep disruption** from round-the-clock breastfeeding can **prolong psychosis symptoms** and increase relapse risk.
- Educate mothers and families about the importance of **adequate, uninterrupted rest.**

Strategies to protect sleep:

- Have partners or family members help with nighttime feedings.
- Use a breast pump during the day so partners can provide bottles at night.
- Consider supplementing with formula to allow longer sleep periods if needed.

“Is it safe to breastfeed, doctor?”

Most psychiatric medications pose little risk to breastfeeding infants, but some are better studied than others.

Antipsychotics:

- **Olanzapine** and **quetiapine** have the most robust safety data in breastfeeding.
  - *(Uguz F, Am J Ther 2021)*

Benzodiazepines:

- **Lorazepam** is preferred over clonazepam.
- Clonazepam has been linked with sedation in breastfeeding infants.
  - *(Soussan C et al, Eur J Clin Pharmacol 2014)*

Breastfeeding Considerations

General Principles:

- Highly protein-bound medications with short half-lives produce the least infant exposure.

Antidepressants:

- **Sertraline** and **citalopram** are preferred for depression.

Mood Stabilizers:

- **Lithium:** Generally **not recommended** due to high infant serum levels, especially if dehydrated (e.g., fever, diarrhea).
- **Carbamazepine** and **valproate:** Generally acceptable due to high protein binding.
- **Lamotrigine:** Usually acceptable; monitor infants for rash and variable blood levels.

Antipsychotics:

- Generally safe in breastfeeding.
- Monitor infants for sedation and dose-dependent exposure effects.

Didn’t we give our patient lithium?

- **Infants exposed to lithium through breast milk can develop high serum levels**, sometimes exceeding maternal levels—especially if the infant is premature.
  - *(Heinonen E et al, Acta Paediatr 2022)*
- For this reason, **breastfeeding is generally discouraged** in mothers taking lithium.
- However, some researchers have proposed **guidelines for cautiously continuing breastfeeding** if:
  - The infant is healthy and full-term.
  - The mother is able to ensure **frequent pediatric monitoring and lab checks.**
    - *(Imaz ML et al, Front Pharmacol 2021)*

Summary Bipolar Disorder in Pregnancy

Preconception:

- Begin management early.
- Switch to safer medications and stabilize the patient before conception.

Pregnancy:

- Monitor closely for relapse.
- Adjust medication doses as pregnancy progresses.
- Avoid high-risk medications (valproate, carbamazepine).
- Lithium and lamotrigine levels vary widely.
- First-trimester lithium exposure increases cardiac defect risk in a dose-dependent manner.

Postpartum:

- Start prophylactic treatment if not already on a mood stabilizer.

Breastfeeding:

- Many medications are compatible with breastfeeding.
- Avoid lithium when possible due to high infant serum levels.

Documentation:

- Risks and benefits of treatment.
- Patient's capacity to consent.
- That the 2–4% baseline risk of birth defects was discussed, regardless of medication exposure.
- Symptom improvement with treatment.
- Plans to discontinue ineffective medication to minimize fetal exposure.

Summary Postpartum Psychosis

Psychiatric Emergency:

- Requires **immediate inpatient care**.

Recovery and Relapse:

- Most patients recover within **7 weeks**.
- Without maintenance treatment, relapse risk remains high.

Risk Factors:

- History of bipolar disorder
- Prior postpartum psychosis

Prophylaxis:

- May require **lithium or lamotrigine prophylaxis postpartum** or in late pregnancy.

Further References & Resources

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