THE UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER

The Integrated OB

Managing Perinatal Anxiety & Depression

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Learning Objectives

- Recognize the perinatal spectrum of both anxiety and depressive disorders, antepartum through 12+ months postpartum
- Screen for both depression and anxiety with validated tools (EPDS, GAD-7) per ACOG 2023 guidance
- Conduct a risk/benefit analysis for antidepressants (SSRIs/SNRIs are first-line for both), anxiolytics, mood stabilizers, and neuroactive steroids in pregnancy and lactation
- Manage neonatal adaptation syndrome and counsel patients on fetal/neonatal exposure risks
- Recognize indications for treatment beyond the postpartum period and structure long-term relapse prevention
- Identify postpartum psychosis as a psychiatric emergency, and distinguish it from ego-dystonic postpartum OCD

Disclosures and Disclaimer

- I have the following relevant financial relationships with a commercial interest:
  - Received consulting/speaking honoraria from Braeburn Inc, the maker of Brixadi.
- This informational presentation was developed independently.
- The information provided in this presentation is not the official position or recommendation of Braeburn, Meharry Medical College, or the University of Tennessee but rather expert opinion.
- This information is not intended to be appropriate for every clinical situation, nor does it replace clinical judgment.

Session Roadmap

1	The Perinatal Mental Health Burden	10 min
2	Recognition & Dual Screening (EPDS + GAD-7)	7 min
3	Perinatal Anxiety: GAD, Panic, OCD, PTSD	10 min
4	Perinatal Depression & Postpartum Psychosis	7 min
5	Shared Pharmacotherapy & Lactation Safety	5 min
6	Duration, Referral & Take-Home Points	6 min

Section 1

The Perinatal Mental Health Burden

The Scale of the Problem

1 in 5

affected by perinatal anxiety, often MORE common than depression

50%

of mood and anxiety cases go undetected in obstetric settings

1 in 7

affected by perinatal depression, the classic figure

#1

indirect cause of maternal morbidity and mortality

The Cost of Non-Treatment

MATERNAL RISKS

- Preeclampsia & operative delivery
- Preterm labor (stress-mediated CRH)
- Poor prenatal care adherence
- Substance use (alcohol, tobacco)
- Suicide: leading cause of peripartum mortality in high-income countries
- Recurrent depressive episodes beyond perinatal period

FETAL / NEONATAL / CHILD RISKS

- Fetal growth restriction & low birth weight
- Preterm delivery
- Neonatal admission to special care nursery
- Impaired maternal-infant bonding
- Adverse childhood neurodevelopment: cognitive, behavioral, emotional
- Epigenetic effects, altered HPA axis programming

The OB/GYN: First-Line Clinician for Perinatal Mental Health

- OB/GYNs have more patient contact during the perinatal period than any other specialty
- ACOG mandates screening at least once antepartum and at the postpartum visit (Committee Opinion 2023)
- Most women with PPD are never referred to or seen by psychiatry, the OB/GYN is the de facto prescriber
- Prescribing SSRIs/SNRIs for perinatal depression falls squarely within OB/GYN scope of practice
- Failure to screen and treat is a medicolegal risk: maternal suicide and infanticide are preventable
- The ACOG 2023 opinion explicitly supports OB/GYNs initiating pharmacotherapy, not merely referring

"Obstetric care clinicians are well positioned to prevent, screen for, and manage mental health conditions during the perinatal period.", ACOG Committee Opinion 2023

Section 2

Recognition & Dual Screening

Dual Screening: Depression AND Anxiety

Tool	Items	Threshold	Validated in Pregnancy	Notes
EPDS (Edinburgh)	10	≥10 antepartum; ≥12 postpartum; item 10 any +	Yes, gold standard	Q10 assesses suicidality (any + requires immediate evaluation); items 3-5 = the EPDS-3A anxiety subscale
PHQ-9	9	≥10 moderate; ≥15 severe	Yes	ACOG acceptable alternative; widely used in primary care settings
PHQ-2	2	≥3	Partial	Suitable only for initial rapid screen; positive requires PHQ-9 follow-up
GAD-7	7	≥10	Yes	Screen anxiety routinely, not optional; comorbid with depression ~50%; anxiety often exceeds depression

ACOG (2023): ACOG 2023: screen for BOTH depression and anxiety at least once in pregnancy AND at the postpartum visit. Document and follow up.

The Clinical Spectrum: Blues → Depression → Psychosis

Postpartum BLUES	Perinatal DEPRESSION	Postpartum PSYCHOSIS
Prevalence: 50–85%	**Prevalence:** 10–15%	**Prevalence:** 1–2/1000
Onset: Day 2–5	**Onset:** Pregnancy–3 mo PP	**Onset:** 48–72 hrs PP
Duration: < 2 wks	**Duration:** Months–years	**Duration:** Weeks–months
Treatment: Reassurance, support	**Treatment:** Psychotherapy ± pharmacotherapy	**Treatment:** Psychiatric emergency: admit, Rx, mood stabilizer

Section 3

Perinatal Anxiety: GAD, Panic, OCD & PTSD

Perinatal Anxiety: Often the Hidden Majority

- More common than depression: in prospective data, anxiety disorders affected ~16% of women antepartum and ~17% postpartum, versus ~4% and ~5% for depression. About 24% of pregnant women meet criteria for at least one anxiety disorder.
- Generalized anxiety disorder runs 8.5–10.5% in pregnancy and 4.4–10.8% postpartum, as high as or higher than the general population, yet receives a fraction of the attention depression does.
- Structurally under-recognized: the DSM-5 'peripartum onset' specifier applies ONLY to mood disorders, not anxiety. Somatic symptoms (fatigue, insomnia, poor concentration, irritability) blur into 'normal pregnancy.'
- Not benign: antenatal anxiety independently predicts a roughly threefold increase in postpartum depression, and comorbid anxiety predicts a more severe, protracted course.

GAD & Panic in the Perinatal Period

- Generalized anxiety disorder: excessive, uncontrollable worry, often centered on the pregnancy, the baby's health, or one's adequacy as a parent. Distinguished from normal worry by persistence and functional impairment.
- Panic disorder: recurrent unexpected attacks plus anticipatory anxiety, comorbid in ~10% of perinatal anxiety. Course is variable and may worsen or improve across pregnancy.
- Comorbidity is the rule, not the exception: about 50% (up to 75% in some cohorts) of perinatal GAD also meet criteria for depression. Treat the whole picture, not just the depression score.
- First-line is the shared backbone: SSRIs/SNRIs plus CBT. Buspirone is a reasonable adjunct; reserve benzodiazepines for short-term use and avoid chronic dosing (neonatal sedation and withdrawal).

Postpartum OCD: The Critical Distinction

- Common and missed: roughly 11% of mothers screen positive for OCD symptoms postpartum, exceeding general adult rates. Aggressive and contamination obsessions predominate.
- The defining feature: intrusive, unwanted thoughts or images of harming the infant are EGO-DYSTONIC, they horrify the mother and drive avoidance and hypervigilance, not intent to act.
- This is NOT postpartum psychosis. Psychosis involves loss of reality testing, ego-syntonic delusions, and genuinely elevated risk to the infant. OCD intrusive thoughts do not.
- Get the response right: do NOT reflexively report to child protective services, the mother is protective, not dangerous. First-line is an SSRI (often higher doses) plus exposure and response prevention (ERP).

Birth-Related PTSD & Trauma-Informed Care

- Prevalence: roughly 3–4% of women develop PTSD after a traumatic birth, rising to ~9% or higher in high-risk groups. Risk increases with emergency cesarean, NICU admission, prior trauma or abuse, and obstetric mistreatment.
- Presentation: re-experiencing the birth, avoidance of medical care or future pregnancy, hypervigilance and sleep disruption. Highly comorbid with both depression and anxiety.
- First-line treatment: trauma-focused CBT and EMDR; SSRIs are the first-line pharmacotherapy. Continuity with a trusted clinician matters.
- Prevention is obstetric: trauma-informed care, clear communication, and a sense of control during delivery measurably reduce risk. The OB/GYN team shapes whether birth becomes a trauma.

Section 4

Perinatal Depression & Postpartum Psychosis

Treatment Beyond the Postpartum Period

- Perinatal depression is not a self-limited condition, it is often the onset of recurrent MDD or first clinical expression of bipolar disorder
- Women who develop PPD: 50% will have another depressive episode within 5 years (non-perinatal)
- The postpartum visit is NOT the endpoint, it is a treatment checkpoint
- Transition of care: who manages the patient after the 6-week visit? OB/GYN should not abruptly discharge patients on antidepressants without a defined care plan
- Maintenance therapy: same principles as recurrent MDD, each episode increases the risk and severity of the next
- Future pregnancy planning: pre-conception counseling for women with prior perinatal depression, address contraception, timing, prophylactic treatment strategy

Discontinuation guidance: Taper slowly (25% dose reduction every 2–4 weeks). Avoid abrupt discontinuation, risk of discontinuation syndrome AND relapse. Ideal timing: taper during a period of psychosocial stability, not during major life stressors.

Postpartum Psychosis: Psychiatric Emergency

Postpartum Psychosis is a Psychiatric Emergency, Mortality Risk for Mother and Infant

- Incidence: 1–2 per 1000 deliveries. Risk rises to 1 in 5 in women with prior postpartum psychosis or bipolar I disorder.
- Onset: most within 48–72 hours of delivery; nearly all within first 2 postpartum weeks (bimodal: days 2–3 and days 7–10).
- Pathophysiology: most cases represent a bipolar I episode triggered by rapid postpartum hormonal shift + sleep deprivation. Treat as bipolar emergency.
- Presentation: insomnia, restlessness, irritability → rapidly evolving confusion, disorientation, rapidly shifting mood, delusions (infant-focused), command hallucinations → behavior disorganization.
- Management: INPATIENT. Antipsychotic + lithium (first-line per MGH P3 data 2026). ECT: rapidly effective, should be offered early in severe/refractory cases. Lorazepam for agitation. Mothercraft support.
- Prophylaxis: women with prior postpartum psychosis → lithium at 36 weeks or within 48h delivery. Discuss with psychiatry before delivery; delivery plan should include psychiatry on call notification.

Section 5

Shared Pharmacotherapy & Lactation

Framework: Evaluating Medication Risks in Pregnancy

- FDA Pregnancy and Lactation Labeling Rule (PLLR, 2015): abolished letter categories (A/B/C/D/X), replaced with narrative risk/benefit summaries in three sections: Pregnancy, Lactation, Females and Males of Reproductive Potential
- Three domains of fetal/neonatal risk to assess for any psychotropic:

1. Teratogenesis	2. Neonatal Toxicity	3. Neurobehavioral Sequelae
Structural malformation during organogenesis (wks 3–12). Most critical for CNS & heart. Baseline malformation rate: 2–4%.	Perinatal symptoms (NAS) from medication exposure at/near delivery. Usually transient (1–4 days). Not withdrawal per se, neonatal adaptation.	Long-term CNS effects post-organogenesis. Very limited systematic data. Must balance against risks of untreated maternal illness on offspring development.

The analysis must ALWAYS include: risks of untreated illness + risks of medication exposure, compare both columns

SSRIs/SNRIs: First-Line for Anxiety AND Depression

Drug	Teratogen Risk	Key Data	Recommendation
Sertraline	Low, no increased malformation risk	Largest safety dataset; best studied in pregnancy. Most consistent reassurance.	**PREFERRED FIRST-LINE**
Escitalopram	Low, reassuring data	Consistent with sertraline; large prospective cohort data.	**PREFERRED**
Fluoxetine	Low, no increased malformation; 2500+ cases	Best characterized historically (Prozac Pregnancy Registry).	**ACCEPTABLE**
Citalopram	Low	531-case prospective study: no increased malformation.	**ACCEPTABLE**
Paroxetine	Category D (FDA): possible cardiac defect signal	Early reports: septal defects; subsequent meta-analyses show no clear association, controversy persists.	**AVOID if alternatives available**
Venlafaxine (SNRI)	No increased malformation in 150-case prospective study	Higher NAS rate; modest BP elevation; postpartum hemorrhage signal.	**ACCEPTABLE; monitor**

Neonatal Adaptation Syndrome (NAS)

Features

- Affects ~25% of neonates with 3rd-trimester SSRI exposure
- Tremor, jitteriness, restlessness
- Increased muscle tone, high-pitched cry
- Feeding difficulties, hypoglycemia
- Respiratory distress (mild, transient)
- Onset: hours after delivery; resolves in 1–4 days without specific treatment

Clinical Management

- Notify pediatrics/neonatology at delivery, anticipatory, not emergent
- Monitoring ×24–48 hours: no specific treatment needed in most cases
- NOT recommended to taper/discontinue SSRIs before delivery, increases PPD risk without reducing NAS severity [MGH data]
- PPHN: initial report 6x risk (2006); 3 subsequent studies show NO association or markedly lower risk (<0.5%)
- Neonatal behavioral teratology: prospective data to 7 years (fluoxetine, TCAs): no difference in IQ, behavior, temperament vs. unexposed controls

Beyond SSRIs: TCAs, Bupropion, MAOIs

- Tricyclic antidepressants (TCAs): >400 first-trimester exposures in 3 prospective + 10 retrospective studies, no increased malformation risk. Preferred agents: desipramine, nortriptyline (less anticholinergic, less orthostatic hypotension). Sedating TCAs useful for prominent insomnia. High lethality in overdose, caution in suicidal patients.
- Bupropion (Wellbutrin): GlaxoSmithKline Pregnancy Registry (517 pregnancies): 3.9% malformation rate (consistent with general population baseline). Some early cardiovascular signal not replicated in larger cohort (n>1200). May be less effective than SSRIs for PPD (limited data). Useful for comorbid smoking cessation.
- Mirtazapine: 104-case prospective study, no increased malformation vs. controls. Sedating, useful for insomnia and weight loss. Limited PPD-specific data.
- Venlafaxine/Duloxetine (SNRIs): Venlafaxine, 150-case prospective; no increased malformations. Duloxetine, limited prospective data. Both: higher NAS rate than SSRIs; mild maternal hypertension risk; postpartum hemorrhage signal (platelet effect).
- MAOIs: CONTRAINDICATED in pregnancy, hypertensive crisis when combined with tocolytics (terbutaline). No data. Do not use.

Mood Stabilizers in Pregnancy: Bipolar Disorder

Agent	Teratogen Risk	Specific Concerns	Clinical Guidance
Lithium	Low-moderate	Cardiovascular malformations: revised estimate 0.05–0.1% (Ebstein's original risk was overestimated 10-fold). Neonatal toxicity at delivery.	Preferred mood stabilizer in pregnancy. Maintain; adjust dose for plasma volume expansion. Level monitoring q4wks.
Lamotrigine	Low-moderate	Oral cleft: 0.9% absolute risk (24x baseline per North American AED Registry; not replicated in all registries). No neurocognitive impairment in offspring.	Preferred over valproate. Dose increases needed in 2nd/3rd trimester (glucuronidation increases). Monitor levels.
Valproate	**HIGH, AVOID**	NTD risk 1–6% (dose-dependent). Craniofacial, cardiac, limb defects. Mean IQ decrease of 9 points in exposed offspring. Neonatal hepatotoxicity.	**AVOID in reproductive-age women. If unavoidable: folate 4mg/day, level III ultrasound, fetal echocardiogram, counseling.**
Carbamazepine	Moderate	NTD risk ~1%. Characteristic craniofacial features (fetal hydantoin syndrome). Hemorrhagic disease of newborn (vitamin K depletion).	Lower risk than valproate; still avoid if possible. Use lamotrigine or lithium preferentially.

Novel Neuroactive Steroids: Brexanolone & Zuranolone

BREXANOLONE (Zulresso), IV

- Mechanism: synthetic allopregnanolone, positive allosteric modulator of GABAA receptors (synaptic + extrasynaptic)
- Indication: FDA-approved 2019, moderate-to-severe PPD
- Dosing: 60-hour continuous IV infusion in certified healthcare setting (REMS program)
- Efficacy: HUMMINGBIRD trial, HAMD-17 improvement vs. placebo; 75%+ response in severe PPD
- Limitations: IV, inpatient, costly ($35,000/course), requires 2-person monitoring; infant separation during infusion

ZURANOLONE (Zurzuvae), Oral

- Same GABA mechanism as brexanolone, oral bioavailability
- FDA-approved August 2023, PPD (and MDD adjunct)
- Dosing: 50 mg/day × 14 days (with evening meal, high-fat)
- Efficacy: SKYLARK & ROBIN trials, significant HAMD-17 improvement by Day 3; sustained at Day 45
- Onset: rapid (days) vs. SSRIs (weeks), critical advantage in severe PPD
- Use in breastfeeding: uncertain; recommend avoiding. C-IV controlled substance. Not for use in pregnancy (no data).

Antidepressants While Breastfeeding

Drug	RID	Infant Serum Level	Adverse Events	Recommendation
Sertraline	0.4–2.2%	Undetectable (majority)	Rare: jitteriness (case reports)	**PREFERRED**
Paroxetine	1.0–2.8%	Undetectable/low	Rare	**PREFERRED (low RID)**
Escitalopram	3.9–7.9%	Low	1 case: restlessness/poor feeding	**ACCEPTABLE**
Fluoxetine	5.7–14.6%	Variable; detectable in some infants	Case reports: colic, decreased feeding	**ACCEPTABLE; monitor**
Venlafaxine	6.8–8.1%	Low	Rare adverse events	**ACCEPTABLE**
Nortriptyline	1.4–2.5%	Undetectable	None reported	**PREFERRED TCA**
Bupropion	0.2–2%	Low	1 case: seizure (causal link uncertain)	**USE WITH CAUTION**

Section 6

Duration, Referral & Take-Home Points

Duration of Treatment: The Relapse Prevention Imperative

- Minimum duration for first-episode PPD: 6–12 months, consistent with APA guidelines for first-episode MDD
- Two or more prior episodes (including prior PPD): ≥2 years; consider indefinite maintenance
- Real-world data (2026, MGH): most women start treatment but many discontinue within 3–6 months, before completing adequate duration
- Premature discontinuation ≠ treatment failure: reinforce that remission is NOT the endpoint for stopping, duration matters

Recurrence Risk After First PPD Episode: 50–62% in subsequent pregnancy

- Prophylactic antidepressant at delivery: RCTs demonstrate benefit in women with history of PPD, start immediately postpartum or at 36 weeks gestation
- Lithium prophylaxis for bipolar disorder: initiate at 36 weeks or within 48 hours postpartum, dramatically reduces postpartum psychosis risk
- Recurrent depression unrelated to pregnancy: perinatal depression is often the sentinel episode of a lifetime mood disorder, treat accordingly

Non-Pharmacological Approaches for Anxiety and Depression

- Cognitive Behavioral Therapy (CBT): RCT-proven, equivalent to SSRIs for mild-moderate depression and first-line for anxiety. For OCD, exposure and response prevention (ERP); for birth-related PTSD, trauma-focused CBT and EMDR. Telehealth increasingly accessible.
- Interpersonal Therapy (IPT): Specifically targets interpersonal role transitions (new parent identity) and grief/conflict, highly applicable to perinatal patients. Strong evidence base.
- Mindfulness-Based CBT (MBCT): Emerging evidence for PPD; robust data for relapse prevention in recurrent MDD.
- Omega-3 fatty acids: EPA-dominant formulations, modest evidence for adjunctive benefit; safe in pregnancy and breastfeeding. Not a monotherapy for moderate-severe PPD.
- Light therapy: Evidence in seasonal and non-seasonal perinatal depression. Low risk. May be combined with pharmacotherapy.
- Exercise: Consistent evidence for improvement in mild-moderate PPD; improves sleep, energy, and self-efficacy.
- Collaborative care model: Embedded behavioral health specialist in OB practice, most effective structural model for PPD screening, treatment, and follow-up (RAINBOW trial and similar). Reduces disparities, improves outcomes.

Clinical Resources & When to Refer

Key Resources

- LactMed (NIH): nlm.nih.gov/books/NBK501922, definitive lactation database
- MGH Center for Women's Mental Health: womensmentalhealth.org, clinical summaries, patient education
- Postpartum Support International (PSI): postpartum.net, provider directory, peer support, helpline 1-800-944-4773
- ACOG Resources: acog.org, Committee Opinion 2023 on Perinatal Mental Health
- National Pregnancy Registry for Psychiatric Medications: womensmentalhealth.org/pregnancyregistry

Indications for Psychiatric Referral

- Any suicidal ideation with plan or intent
- Suspected postpartum psychosis
- Bipolar disorder, any severity
- Non-response to adequate SSRI trial
- Active psychosis, severe OCD, PTSD
- Eating disorder comorbidity
- Clinician uncertainty about diagnosis or management

Key Takeaways

1. Perinatal anxiety AND depression span conception through 12+ months, and anxiety is often the more common of the two. Screen for both (EPDS + GAD-7) throughout.
2. Untreated illness IS a teratogen: preterm birth, growth restriction, developmental impairment, suicide. Weigh this against medication risk, always.
3. SSRIs/SNRIs (sertraline, escitalopram) are the shared first-line pharmacotherapy for both anxiety and depression, safe in pregnancy AND breastfeeding.
4. Avoid valproate in reproductive-age women. Lithium is far safer than historically taught (0.05–0.1% cardiac malformation, not 2%).
5. Zuranolone (oral, 14 days) offers rapid onset, a transformative option for moderate-severe PPD.
6. Treat for at least 12 months after first episode. 50–62% recurrence risk in next pregnancy, counsel and plan prophylaxis proactively.
7. Postpartum psychosis is a psychiatric emergency (lithium + antipsychotic ± ECT). Distinguish it from ego-dystonic postpartum OCD, which is NOT dangerous and responds to SSRI + ERP.

Thank You

Discussion & Questions

ACOG Committee Opinion 2023 · APA Practice Guidelines · SMFM Consult Series
MGH Center for Women's Mental Health (womensmentalhealth.org)
LactMed: nlm.nih.gov/books/NBK501922 · Postpartum Support International: postpartum.net

"The question is never medication vs. no medication.
It is always treated illness vs. untreated illness."