Perinatal Mental Health Care Guide 2021

MARCH 1

DEPARTMENT OF PSYCHIATRY
AND BEHAVIORAL SCIENCES
SCHOOL OF MEDICINE
UNIVERSITY OF WASHINGTON

Washington State Health Care Authority

UW Medicine
DEPARTMENT OF PSYCHIATRY AND BEHAVIORAL SCIENCES

Table of Contents

Introduction

This care guide is intended to help prenatal, primary care, and mental health providers screen for, diagnose, and treat pregnant and postpartum individuals with mental health problems. The guide is based on current evidence in the literature, as of the time of writing. We have attempted to distill current knowledge into focused, practical points. The guide is divided into modules, each covering a particular diagnosis/set of disorders or important topic in perinatal mental health.

Modules include:

- Overviews of disorders, including recommended approaches to diagnosis, differential diagnosis, and treatment
- Summaries and approaches to other concerns related to the perinatal period or reproductive hormonal effects on mental health
- Free-to-reproduce rating scales useful in indicating need for further diagnostic assessment and assessing response to treatment
- A general approach to prescribing during the perinatal period
- Organized, current evidence-based information about medications, including dosing, side effects, and effects/risks during pregnancy and lactation
- References and resources for providers and for patients

Care guide modules were written by PAL for Moms psychiatrists, as well as guest experts on specific topics. Modules were based on current literature (obtained by PubMed searches) and databases (e.g. Reprotox, LactMed). Each module was peer-reviewed by the PAL for Moms psychiatrist group:

- Amritha Bhat MD
- Deborah Cowley MD
- Carmen Croicu MD
- Aba Nduom MD
- Katherine Palm-Cruz MD
- Laurel Pellegrino MD
- Ramanpreet Toor MD
- Kelly Wurzel MD

We hope that this guide is helpful and welcome any feedback. Please also feel free to call us at PAL for Moms (1-877-PAL4MOM/ 1-877-725-4666) with any questions that you have about individual patients/clinical situations, general issues, or resources and referrals.

Prescribing in the Perinatal Period

Most PAL for Moms calls include questions about effects of medications and about prescribing during pregnancy and breastfeeding. Each PAL for Moms care guide module that focuses on a specific disorder provides the most up to date information, as of the time of writing, about medications used to treat that disorder. In this section, we outline general guidelines for prescribing during the perinatal period and provide some resources to use in looking up the most recent information, and in finding medication fact sheets to give to your patients. The guidelines below reflect our overall approach, which is to use the lowest number and dosages of medications possible, while effectively treating the psychiatric disorder.

What are some general rules of thumb about prescribing during the perinatal period?

1. **Consider risks during pregnancy whenever prescribing medication for someone of childbearing potential.** About 50% of pregnancies are unplanned. Considering, and informing people of childbearing potential about, risks of their medication(s) during pregnancy helps to maximize prescribing of safer medications and avoid patients' suddenly discontinuing needed medication if they find out they are pregnant.

2. **Make any medication changes before pregnancy if possible.** This minimizes the number of exposures for the baby and maximizes stability for the parent. Changing a newer medication with less data regarding safety in pregnancy to an older medication with more safety data can be done before pregnancy, if desired. Making this change once the patient is already pregnant involves exposing the baby to two medications instead of one and potentially causing worsening of the parent's psychiatric condition.

3. **Remember that an untreated/undertreated psychiatric disorder also poses risks to the parent and the baby.** Untreated/undertreated psychiatric disorders pose significant risks for parents and babies. For example, perinatal depression is associated with higher rates of preterm birth, low birth weight, problems with attachment and bonding, and increased rates of psychiatric disorders in childhood and adolescence. For this reason, it is important to treat psychiatric disorders effectively during the perinatal period.

4. **Ideally, the patient should be psychiatrically stable for at least 3 months before trying to conceive.** Although this is not always possible, it decreases risk of relapse and exposure of the baby to risks of untreated/undertreated psychiatric illness.

5. **Avoid polypharmacy whenever possible.** Prescribing the fewest medications possible to effectively treat the patient's psychiatric disorder reduces exposures for the baby. Reviewing the need for each medication is especially important when someone is taking multiple medications and/or more than one medication in a class (e.g. two or more antidepressants, two or more antipsychotics, multiple antianxiety/hypnotic medications, etc.)

6. **Avoid Depakote.** Depakote (valproic acid) is a commonly prescribed mood stabilizer for patients with bipolar disorder. Depakote is a known teratogen (rate of malformations elevated in all dosage ranges and 25% at doses above 1450 mg/day) and is associated with significantly decreased IQ in children exposed in utero.

7. **Optimize non-medication treatments.** At all times, and especially during the perinatal period, we want to maximize the use of evidence-based non-medication treatments such as psychotherapy. Most people with mild to moderate depression and anxiety respond to evidence-based psychotherapy and do not need medication if psychotherapy is available. Even if someone requires medication for effective treatment of their condition, non-medication treatments can help minimize numbers and dosages of medications and increase effectiveness of treatment.

8. **If you are thinking of stopping your patient's psychotropic medications because they are pregnant, please call us first.** Discontinuing medications abruptly can precipitate relapse (another exposure for the baby and risk for the parent). Also, stopping some medications can cause withdrawal symptoms that are potentially dangerous (e.g. benzodiazepines) or unpleasant (e.g. antidepressants). We would be happy to help you sort out which medications to discontinue and safe tapering schedules.

9. **Prescribing during the perinatal period requires a risk-risk discussion.** Informed consent during the perinatal period involves collaborating with the patient in discussing and weighing risks of medication for the fetus/baby, risks of the psychiatric disorder, and possible alternative treatments.

10. **Use a patient-centered and team approach.** In addition to collaborative decision-making with, and support of, the patient, this includes involving family members and communicating with other care providers. It is important to educate the partner and/or family members about risks and benefits of treatment as well as warning symptoms of relapse. Communication with obstetric and pediatric providers minimizes the patient's hearing conflicting opinions and being confused and concerned.

References and resources:

Chisolm MS, Payne JL. Management of psychotropic drugs during pregnancy. BMJ 2016 Jan 20; 532:h5918. https://doi.org/10.1136/bmj.h5918

InfantRisk apps for healthcare providers and parents about safety of medications during pregnancy and breastfeeding. https://www.infantrisk.com/infantrisk-center-apps

LactMed database about safety of medications during breastfeeding. https://www.ncbi.nlm.nih.gov/books/NBK501922/

Reprotox database about medications during pregnancy, breastfeeding, and development. Requires subscription. https://reprotox.org/

MotherToBaby fact sheets for parents regarding risks of drugs (including non-prescribed drugs) during pregnancy and breastfeeding. https://mothertobaby.org/fact-sheets/

Resources

Perinatal Psychiatry Consultation Line

PAL for Moms Program

UW Psychiatry & Behavioral Sciences

Partnership Access Line (PAL) for Moms, a Perinatal Psychiatry Consultation Line for Providers

Partnership Access Line (PAL) for Moms is a free state-funded program providing perinatal mental health consultation, recommendations and referrals for providers caring for pregnant or postpartum patients.

HOW DOES IT WORK?

Call **877-725-4666** (PAL4MOM), available weekdays 9am - 5pm
Complete a brief intake
Consult with a UW perinatal psychiatrist (usually immediately, or within 1 business day)
Receive written documentation of recommendations and resources

WHO CAN CALL?

Any provider in Washington State who cares for pregnant or postpartum patients.

WHAT KIND OF QUESTIONS CAN I CALL ABOUT?

We consult on any behavioral health-related questions for patients who are pregnant, in the first year postpartum, or who have pregnancy-related complications (e.g. pregnancy loss, infertility). Topics may include:

Depression, anxiety, other psychiatric disorders (e.g., bipolar disorder, post-traumatic stress disorder), substance use disorders, or co-occurring disorders
Pregnancy loss, complications, or difficult life events
Weighing risks and benefits of psychiatric medication
Non-medication treatments
Local resources & referrals
Guidance on implementing mental health screening at your workplace

WHO PROVIDES THE TELEPHONE CONSULTATION?

Faculty members in the UW Department of Psychiatry and Behavioral Sciences with expertise in perinatal mental health. Learn more.

Psychiatry Consultation Services for Washington State Healthcare Providers

Psychiatry Consultation Line (PCL)

for prescribing providers with adult psychiatry and/or addictions questions

877-WA-PSYCH (877-927-7924) | pclwa@uw.edu

Staffed 24/7

www.pcl.psychiatry.uw.edu

Partnership Access Line (PAL)

for primary care providers with child and adolescent psychiatry questions

866-599-7257 | paladmin@seattlechildrens.org

8am - 5pm, Monday - Friday (excluding holidays)

www.seattlechildrens.org/PAL

PAL for Moms

for providers with behavioral health questions related to pregnancy and postpartum

877-PAL4MOM (877-725-4666) | ppcl@uw.edu

9am - 5pm, Monday - Friday (excluding holidays)

www.mcmh.uw.edu/ppcl

Psychiatry & Addictions Case Conferences (UW PACC-ECHO)

for providers interested in didactic presentations and case-based learning

uwpacc@uw.edu

12:00-1:30 pm, Thursdays

ictp.uw.edu/programs/uw-pacc

UW Medicine
DEPARTMENT OF PSYCHIATRY AND BEHAVIORAL SCIENCES

Seattle Children's
HOSPITAL • RESEARCH • FOUNDATION

Washington State Health Care Authority

General Resources for Providers

LactMed
Peer-reviewed database that provides safety data on drugs and other chemicals during breastfeeding.
https://www.ncbi.nlm.nih.gov/books/NBK501922/

InfantRisk Center
Phone app and call center that provide evidence-based data on medication and drug safety in pregnancy and breastfeeding.
https://www.infantrisk.com/

Massachusetts General Hospital Center for Women's Mental Health
A reproductive psychiatry resource and information center.
https://womensmentalhealth.org/

Reprotox
Database about medications during pregnancy, breastfeeding, and development. Requires subscription.
https://reprotox.org/

Statewide UW Resources for Providers

PAL for Moms Perinatal Psychiatry Consultation Line: (877) 725-4666
Telephone consultation, recommendations, and referrals for healthcare providers caring for patients with behavioral health disorders during pregnancy and postpartum. Available weekdays 9 am- 5 pm.
https://www.mcmh.uw.edu/ppcl

UW Psychiatry Consultation Line (PCL): (877) 927-7924
Telephone consultation and recommendations for prescribers caring for adult patients (18+) with mental health and/or substance use disorders. Available 24/7.
https://pcl.psychiatry.uw.edu/

Partnership Access Line (PAL): (866) 599-7257
Telephone consultation and recommendations for primary care providers caring for children and adolescents with behavioral health disorders. Available weekdays 8 am- 5 pm.
https://www.seattlechildrens.org/healthcare-professionals/access-services/partnership-access-line/

UW Psychiatry and Addictions Case Conference-ECHO (UW PACC)
A free, weekly teleconference that includes an educational presentation by UW psychiatrists and case presentations. Archive of past presentations can be searched for presentations on the perinatal period.
https://ictp.uw.edu/programs/uw-pacc

Statewide Perinatal Mental Health Resources

UW Perinatal Telepsychiatry Clinic
A telepsychiatry clinic for perinatal patients that provides evaluations and 1-2 follow-up visits (rather than ongoing treatment). Referring providers receive a follow-up note with recommendations.
https://www.mcmh.uw.edu/perinatal-telepsychiatry-clinic

Perinatal Support Washington
Organization offers a warm line, perinatal mental health directory, provider trainings, and more.
https://perinatalsupport.org/

Prevention and Treatment of Traumatic Childbirth (PATtch)
An organization that offers information and trainings about traumatic births.
http://pattch.org/

Swedish Center for Perinatal Bonding and Support
Center offers reproductive psychiatry and a day treatment program for people with perinatal mood disorders.
https://www.swedish.org/locations/center-for-perinatal-bonding-and-support

Parent-Child Assistance Program (PCAP)
Free case management program for pregnant and parenting people with substance use disorders.
https://depts.washington.edu/pcapuw/

Northwest Infant Survival and SIDS Alliance
Emotional support for those who are affected by pregnancy, infant, or child loss.
https://nwsids.org/

National Perinatal Mental Health Resources

Perinatal Support International (PSI)
Free online support groups, and information and resources for parents and professionals.
https://www.postpartum.net/

Mother To Baby: (866) 626-6847
Information center for community members that provides free safety data about medications and drugs during pregnancy and breastfeeding. Fact sheets about medications are also available.
https://mothertobaby.org/

RESOLVE: (866) 668-2566
A warm line for support around infertility, IVF, adoption, miscarriage, and third-party reproduction.
https://resolve.org/support/helpline/

Statewide General Mental Health Resources

County Crisis Lines
24-hour crisis hotlines for each county in Washington.
https://www.hca.wa.gov/health-care-services-supports/behavioral-health-recovery/mental-health-crisis-lines

WA Mental Health Referral Service for Children and Teens: (833) 303-5437
A free service that connects families with outpatient mental health providers who have availability.
Using WA Mental Health Referral Service for Children/Teens (seattlechildrens.org)

Washington Recovery Helpline: (866) 789-1511
Helpline for substance use and mental health. Available 24-hours a day.
http://www.warecoveryhelpline.org/

Washington Counselors of Color Network
A database of multicultural counselors and counselors of color in Washington state.
https://www.multiculturalcounselors.org/

Ingersoll Gender Center Health Care Provider Directory
A database of gender-affirming health care providers in WA. Database is searchable by mental health and reproductive health.
https://ingersollgendercenter.org/ingersoll-directory/

Other Perinatal Resources

Within Reach: (800) 322-2588
Hotline, online database, and free care coordination to help families across Washington navigate health and social service systems.
https://withinreachwa.org/

Child Care Aware of Washington: (800) 446-1114
Hotline and database provide free tailored referrals for childcare and early learning to anyone in Washington state.
https://childcareawarewa.org/

First Steps Maternal and Infant Care
Program assists people who are pregnant and on Medicaid in getting access to health and social services.
https://www.hca.wa.gov/health-care-services-supports/apple-health-medicaid-coverage/first-steps-maternity-and-infant-care

Nurse-Family Partnership
A free home visiting program that provides visits by a nurse to qualifying families from pregnancy until a child is two years old. Program is available in many Washington counties.
https://www.nursefamilypartnership.org/

Early Head Start
Free early learning for qualifying children ages 0-3. Migrant and Seasonal Head Start and Tribal Head Start available for qualifying children ages 0-5.
https://www.dcyf.wa.gov/services/earlylearning-childcare/eceap-headstart

National Diaper Bank Network
Nonprofit that works to address diaper need. Maintains a database of community-based diaper banks, which distribute free diapers, that includes eight diaper banks across WA state.
https://nationaldiaperbanknetwork.org/

Perinatal Attention-Deficit/Hyperactivity Disorder (ADHD)

Laurel Pellegrino, MD

Perinatal ADHD

Less common: 3-4% prevalence in adult women is unchanged during pregnancy and postpartum
Comorbidities are common: 38% with any mood disorder, 47% with any anxiety disorder, and 15% with any substance use disorder

First, confirm the diagnosis:
*Administer Adult ADHD Self-Report Scale (ASRS)—5 min, positive result warrants further consideration
*Age of onset, school history
*Impairment in two or more domains
*Rule out other causes: sleep apnea, anxiety, depression, substance abuse

Possible pregnancy outcomes associated with untreated ADHD:
*miscarriage
*preterm birth
*NICU admissions

Next, assess level of impairment
Has she ever been off medications in the past? What happened?
Does she need medications to function at work or at home?
Are comorbidities worse off of medication (e.g. substance use)?
Is she more impulsive or accident-prone off meds (e.g. driving)?

Non-pharmacologic strategies for mild, moderate, and severe ADHD:
*Psychoeducation
*Cognitive Behavioral Therapy (CBT) for ADHD
*Coaching
*ADHD Support groups
*Reduce workload or other workplace accommodations if possible
*Use public transportation if driving concerns

Mild	Discontinue medication Optimize non-pharmacologic strategies
Moderate	Assess for comorbidities Optimize non-pharmacologic strategies Consider bupropion vs prn stimulant
Severe	Assess for comorbidities Continue stimulant at lowest effective dose (skip days when possible) Monitor maternal BP and weight gain Monitor fetal growth Optimize non-pharmacologic augmentation strategies

ADHD Medications in Pregnancy

	Early Pregnancy	Late Pregnancy	Breastfeeding?
Methylphenidate	No consistent association with overall defects (~5500 exposures); possible small increased risk of cardiac septal defects (NNH estimates range from 92-333); possible increased risk spontaneous abortions.	Small increased risk of preterm birth. Possible increased risk of preeclampsia, SGA, placental abruption, low Apgar score, NICU admission, CNS disorders, induced terminations	Low levels in breastmilk, undetectable in infant serum. Limited data without adverse effects.
Prescribed amphetamines	No consistent association with malformations (~5500 exposures).	Small increased risk of preterm birth and preeclampsia. Possible increased risk of SGA, placental abruption, NICU admission, CNS disorders.	Infant dose 5-15% maternal dose. Very limited data without adverse effects.
Bupropion	No consistent association with malformations (~2300 exposures).	No adverse effects (small studies)	Nursing infant exposed to 2% maternal dose; 2 case reports of seizures at 6 months
Atomoxetine	No consistent association with malformations (~450 exposures)	Mixed evidence (~700 exposures)	Unknown
Guanfacine	Too few exposures to say (~30)	Low birth weight (very small studies)	Unknown
Clonidine	No consistent association with malformations based on data from women with HTN	Reduced fetal growth	Excreted in breast milk. Adverse events reports (hypotonia, drowsiness, apnea, seizure)

Perinatal Anxiety

Deborah Cowley, MD

Perinatal Anxiety

Anxiety symptoms and/or positive screen (GAD-7 > 10)

Differential Diagnosis:
*Situational stress/Adjustment disorder (anxiety related to stressful life events, intimate partner violence/abuse, pregnancy-related anxiety)
*Anxiety secondary to medical condition (e.g. hyperthyroidism)
*Anxiety secondary to substance use/withdrawal, medications
*Primary anxiety disorder (meets DSM-5 diagnostic criteria for panic disorder, generalized anxiety disorder, social anxiety disorder, specific phobia)
*Anxiety secondary to another psychiatric disorder (if obsessions/compulsions, think of OCD; if trauma history, nightmares/flashbacks, think of PTSD)

Consider comorbidity: Depression common; many people with anxiety disorders have more than one

Mild anxiety:
*Address stressors, provide information, problem-solving, increased social support
*Relaxation, mindfulness, meditation, yoga
*Consider psychotherapy

Moderate/severe anxiety:
*Psychotherapy (especially cognitive-behavioral therapy (CBT))
*Medication (weigh risks of untreated anxiety vs. risks of medications, alternative treatments)

Risks of untreated anxiety:
*Decreased placental blood flow
*Increased stress reactivity, HPA axis activation, cortisol levels
*Increased rates of preeclampsia, gestational hypertension, preterm birth, low birth weight, prolonged labor, postpartum hemorrhage
*Increased risk of postpartum depression; impaired attachment
*Cognitive and motor delays, emotional and behavioral problems in child

Risks of medications in pregnancy and lactation:
*SSRI antidepressants are first-line medication treatment for anxiety disorders
*No consistent increase in rates of malformations
*Persistent pulmonary hypertension of the newborn (PPHN; 2.9 vs. 1.8/1000)
*Neonatal adaptation syndrome in 30%; worse if also taking benzodiazepines
*Monitor breastfed infants for sedation/poor feeding
*Other medications can be used for adjunctive/as-needed treatment of anxiety (see Perinatal Anxiety Medications table for risks of benzodiazepines and other anxiolytics)

Alternative treatments:
*Psychotherapy (CBT)
*Mindfulness, meditation, relaxation
*Exercise, yoga

Goal:
*Treat to remission
*Track GAD-7 to measure progress/outcome
*If not improved, add medication/ psychotherapy to existing treatment, try a second SSRI or an SNRI, and/or seek psychiatric consultation/referral

Perinatal Anxiety Medications

The first-line medication treatment for an anxiety disorder is an SSRI or venlafaxine. The anxiolytic medications below may be useful as adjunctive treatment, for occasional as-needed (PRN) use, or for patients who cannot tolerate or do not respond to first-line treatment.

Drug Name	Starting Dose (mg)	Up titration/dosing schedule	Side effects	Use in Pregnancy	Use during Lactation
BENZODIAZEPINES					
Alprazolam[a] (Xanax)	0.25-0.5 TID	Increase weekly as needed; max 4 mg daily in divided doses[b]	Benzodiazepine side effects include sedation, incoordination, memory impairment, tolerance, dependence, withdrawal; avoid use with opioids (black box warning)	No increase in malformations[c] Increased rate of spontaneous abortion Neonatal withdrawal, "floppy infant" syndrome; increase in NICU admissions	RID 3%; reports of infant sedation, withdrawal symptoms with weaning/discontinuation
Clonazepam[a] (Klonopin)	0.25 BID	Increase in increments of 0.125-0.25 mg BID to 1-2 mg daily as needed			Sedation, apnea reported in infants; monitor for sedation, poor feeding, poor weight gain
Diazepam[a] (Valium)	2-5 BID	2-10 mg 2-4 times daily			Sedation, weight loss reported in breastfed infants
Lorazepam[a] (Ativan)	0.5-1, 2-3 times daily	Increase as needed to 2-6 (max 10) mg daily in divided doses			Low levels in breast milk, no reports of sedation. Preferred benzodiazepine in lactation.
OTHERS					
Buspirone (Buspar)	7.5 BID	Increase by 5 mg every 2-3 days to 15 mg BID. After 3 weeks, increase further as needed; max 60 mg/day in divided doses	Dizziness, drowsiness, headache, nausea	Limited human data (3 case reports, one infant with malformations); no increase in malformations in animals	Limited data (2 case reports); low levels in breast milk; seizures in one infant exposed to multiple medications
Gabapentin[a] (Neurontin)	100, 1-3 times daily	Increase to 300-600 mg TID as needed	Dizziness, drowsiness	No evidence for increase in malformations	Limited data (9 exposures); RID 1-4%; no adverse effects
Hydroxyzine[a] (Vistaril)	25	Increase to 50-100 mg up to QID as needed	Drowsiness, dry mouth	240 exposures, no overall increase in malformations	Reports of infant sedation, irritability
Pregabalin[a] (Lyrica)	25 BID	Increase as needed to 150-600 mg daily in divided doses	Dizziness, drowsiness	>600 exposures; no consistent increase in malformations	Limited data; RID 7-8%; no reports about effects in infants
Propranolol[a] (Inderal)	10	10 mg as needed, one hour prior to event	Contraindicated with asthma, bradycardia, hypotension, CHF	No inc malformations; ± IUGR; neonatal bradycardia, hypoglycemia	23 exposures; low levels in milk; bradycardia, sedation in 2 infants exposed to multiple medications
Quetiapine[a] (Seroquel)	25	Increase to 50-300 mg daily as needed	Sedation, weight gain, metabolic syndrome	>5000 exposures; no increase in malformations; neonatal syndrome	38 exposures; low levels in milk; RID<1%; one infant with sedation

[a]Can be scheduled or prescribed PRN (as needed); buspirone is not effective as a PRN medication

[b]Dose for panic disorder can be 5-6 mg daily (max 10 mg daily) in divided doses

[c]Increase in malformations reported with benzodiazepine + SSRI exposure, but not with benzodiazepine

11/29/20

Perinatal Anxiety Resources

Review Article:
Thorsness KR, Watson C, LaRusso EM. Perinatal anxiety: approach to diagnosis and management in the obstetric setting. Am J Obstet Gynecol 2018; 219:326-345.

GAD-7 in other languages:
The GAD-7 anxiety screening questionnaire is available in multiple languages at:
https://www.phqscreeners.com/select-screener

Patient manual:
Gyoerkoe K, Wiegartz P, Miller L. The pregnancy and postpartum anxiety workbook: practical skills to help you overcome anxiety, worry, panic attacks, obsessions, and compulsions. Oakland, CA: New Harbinger Publications; 2009.

Websites for patients:
Calm
For meditation, dealing with stress, sleep
https://www.calm.com/

Headspace
For stress, anxiety, sleep, learning meditation
https://www.headspace.com/

Perinatal Bipolar Disorder

Amritha Bhat, MD

Perinatal Bipolar Disorder

Key facts: 60–70% of women with BD experience a mood episode during pregnancy and the postpartum period. Screen for bipolar disorder in all women with perinatal depression, especially if you are considering starting an antidepressant. For those who screen positive, prioritize safety assessment and management of sleep disturbance while awaiting psychiatric evaluation.

Diagnostic criteria for bipolar disorder:
Bipolar I disorder: at least one lifetime manic or mixed episode; Bipolar II disorder: at least one lifetime hypomanic episode and at least one episode of major depression.
Symptoms of mania (lasts 1 week or requires hospitalization): D = Distractibility, I = Irresponsibility, G = Grandiosity, F = Flight of ideas, A = Activity increase, S = Sleep deficit, T = Talkativeness. Symptoms of hypomania – same as mania, for 4 days / without impairment

Effects of untreated bipolar disorder:
On mother: Risk of relapse, suicide, comorbidities
Antepartum hemorrhage, placental abnormalities
On baby: preterm birth, low birth weight, microcephaly, neonatal hypoglycemia

Risk assessment:
Suicide risk: C-SSRS
Risk of infant harm – First determine if thought of harming infant is an intrusive thought (unwanted negative thoughts that are frequent and difficult to dismiss) or infanticidal ideation (due to a psychotic symptom). Ask questions assessing specific content of the thought, and emotional and behavioral responses to thoughts.
Examples of other questions that could be asked, taken from the Postpartum Bonding Questionnaire (Brockington et al 2006)
• Have you felt irritated by your baby?
• Have you had significant regrets about having this baby?
• Does the baby feel like it's not yours at times?
• Have you wanted to shake or slap your baby?
• Have you ever harmed your baby?

Screening tools:
CIDI (Composite International Diagnostic Interview) based screening tool for bipolar spectrum disorders – 3 minutes to complete, clinician administered.
MDQ (Mood Disorder Questionnaire) – 5 minutes to complete, self-report.
Critical to screen for comorbidities such as anxiety, substance use

Pharmacological treatments:
Use monotherapy where possible
Individual risk benefit analysis is important
Acute treatment of perinatal bipolar depression: lamotrigine or quetiapine
Acute treatment of mania or mixed: quetiapine, benzodiazepine, lithium
Maintenance: Lamotrigine, lithium, second generation antipsychotic

Non-pharmacological interventions:
Evidence based psychotherapies: Cognitive Behavior Therapy (CBT) and CBT – Insomnia; Interpersonal and Social Rhythm Therapy
Light therapy
Counsel on lifestyle issues and sleep, help plan how to implement these suggestions

A note on postpartum psychosis
Rare (prevalence 0.1%) but a psychiatric emergency requiring hospitalization.
Rapid onset, highest risk in first 4 weeks postpartum, may occur up to 12 weeks postpartum
Higher risk in those with past episodes and bipolar disorder
Symptoms: mood swings, confusion, strange beliefs and hallucinations

Brockington, I. F., Fraser, C., & Wilson, D. (2006). The postpartum bonding questionnaire: a validation. *Archives of women's mental health*, *9*(5), 233-242.

Chessick, C. A., & Dimidjian, S. (2010). Screening for bipolar disorder during pregnancy and the postpartum period. *Archives of women's mental health*, *13*(3), 233-248.

Perinatal Bipolar Disorder Medications

Drug Name (Common brand name)	Starting Dose and titration	Common side effects / adverse effects	Use in Pregnancy	Use during Lactation
Lamotrigine (Lamictal)	25 mg / day for 2 weeks: 50 mg / day for 2 weeks; 100 mg for 1 week, 200 mg (usual maximum dose)	Serious rash including Stevens Johnson syndrome, nausea, dizziness, ataxia	No increased risk of congenital malformations 29% need dose increase during pregnancy. If dose was increased during pregnancy, taper to pre pregnancy dose within 2 weeks	RID 1.8 – 21. Considered compatible. Monitor for sedation / rash in infant.
Lithium	Acute mania/mixed episodes / or acute bipolar major depression: Initial: 600 to 900 mg/day in 2 to 3 divided doses; increase based on response and tolerability by 300 to 600 mg every 1 - 5 days to usual therapeutic dose range of 900 mg/day to 1.8 g/day. [1]	Hypothyroidism, polyuria, weight gain, serotonin syndrome	Ebstein's anomaly[2] – rate of 0.01 – 0.05% compared to a population risk of 0.005% Higher odds of: Any congenital anomaly (4.1%, OR 1.8, NNH 33) Cardiac anomaly (1.2%, OR 1.86, NNH 71) Increased rates of neonatal readmission No known effects on neurodevelopment Check levels monthly through 34 weeks then weekly. May need increased dose. Adequate hydration during labor, decrease dose to pre pregnancy dose after delivery.	RID 3 – 69. Not considered compatible.
Valproate (Depakote)	Not considered safe to start during pregnancy / in reproductive age people in general	Dry mouth, tremors, headache, weight gain	Dose dependent increased rate of congenital malformations – 5 to 25% (neural tube[3] cardiac and craniofacial) and neurodevelopmental problems (reduced IQ, autism spectrum disorders, and attention-deficit/hyperactivity disorder)	RID 0.1 – 3.9. Considered relatively safe. Monitor infant for sedation
Carbamazapine (Tegretol)	Not considered safe to start during pregnancy / in reproductive age people in general	Dizziness, ataxia, blurred vision, nausea, rash	Dose dependent increased rate of congenital malformations 3 to 9% (neural tube[3], urinary tract and craniofacial malformations).	RID 1.1 – 7.3. Considered relatively safe. Monitor infant for sedation
Oxcarbazepine	Not safe to start during pregnancy / in reproductive age people in general	Dizziness, ataxia, blurred vision, nausea, rash	Insufficient information but appears to be less frequently associated with congenital malformations.	RID 1.5 – 1.7. Considered relatively safe. Monitor infant for sedation.

RID= relative infant dose; NNH – number needed to harm

11/20/2020

1.Check serum levels - 0.8 and 1.2 mEq/L recommended; some respond to lower levels (eg, 0.6 mEq/L).

2. Displacement of the tricuspid valve into the right ventricle; prognosis depends on severity of the lesion. Obtain high resolution ultrasound and fetal echocardiogram at 16 weeks gestation.

3. Risk of neural tube defects may be reduced if folic acid 5 mg is taken for one month preconception and throughout first trimester. Obtain high resolution morphological ultrasound with assessment of nuchal translucency.

Perinatal Bipolar Disorder Resources

Review article:
Review of psychotropic drug use for bipolar disorder in the perinatal period:
https://www.sciencedirect.com/science/article/pii/S0146000520300112

Patient handouts:
Handout from the International Society of Bipolar Disorders on healthy routines and rhythms during the pandemic and beyond:
https://www.isbd.org/Files/Admin/COVID_PSA/COVID_PSA_English.pdf

Wellness tracker from Depression and Bipolar Support Alliance that includes mood, medication and lifestyle trackers:
https://www.dbsalliance.org/wellness/wellness-toolbox/wellness-tracker/

Perinatal Depression

Deborah Cowley, MD

Perinatal Depression

Common: 12-15% in pregnancy, 22% postpartum, in 5-10% of non-gestational parents

Screening:
PHQ-2 → PHQ-9/EPDS
Initial prenatal visit
At least once during pregnancy
Postpartum visit
Well child visits through 12 mos postpartum

Differential Diagnosis:
*Major depressive disorder
*Persistent depressive disorder
*Adjustment disorder
*Depression secondary to medical condition (e.g. hypothyroidism, anemia)/substance use
*Depression secondary to another psychiatric disorder (e.g. bipolar disorder, PTSD)
*Consider postpartum psychosis (emergency)

For positive screens, assess safety
Columbia Suicide Severity Rating Scale
https://cssrs.columbia.edu/documents/c-ssrs-screener-triage-primary-care/

Thoughts about harming baby:
It can be very overwhelming to be a new parent. Sometimes people have upsetting thoughts about hurting their babies, either by accident or on purpose. Have you had thoughts like this?
Refer to emergency services as needed

For mild depression:
Education:https://www.nimh.nih.gov/health/publications/perinatal-depression/index.shtml
Closer monitoring (PHQ-9/EPDS)
Exercise, behavioral activation
Social support
Address sleep issues
Rule out medical causes, bipolar disorder

Moderate/severe depression: Add medication and/or psychotherapy; shared decision-making with patient (and partner, as applicable), weighing risks of medications and untreated depression, and considering alternative/non-medication treatments

Risks of untreated depression:
*Functional impairment, hospitalization, suicide
*Poor prenatal care/self-care; smoking, substance use
*Higher rates of miscarriage, preeclampsia, preterm birth
*Problems with bonding/attachment
*Longer hospital stays, more NICU admissions for baby
*Increased rates of psychiatric disorders in children

May need increase in dose later in pregnancy

Risks of antidepressants:
*Common and serious side effects
*No consistent increase in rates of malformations
*Persistent pulmonary hypertension of the newborn (PPHN; 2.9 vs. 1.8/1000)
*Neonatal adaptation syndrome in 30%; worse if also taking benzodiazepines
*Monitor breastfed infants for sedation/poor feeding; case reports of seizures with exposure to bupropion during lactation

Alternative treatments:
*Psychotherapy (CBT, IPT, therapy that has helped in past)
*Exercise, yoga, bright light, omega-3-fatty-acids (EPA:DHA>1.5)
*For severe/treatment-resistant depression, consider ECT, TMS, brexanolone, day treatment/inpatient programs

Goal:
Treat to remission
Track PHQ-9/EPDS to measure progress/outcome

Perinatal Depression Medications

Drug Name	Starting Dose[a] (mg/day)	Up titration schedule	Use in Pregnancy	Use during Lactation
SSRIs[b]				
Citalopram (Celexa)	10	Increase to 20 mg/day after one week Then, increase by 10-20 mg every 4 weeks[c] (max dose 40 mg/day)[d]	SSRIs not associated with increase in malformations May need dosage increase later in pregnancy Possible increased risk of persistent pulmonary hypertension of the newborn (PPHN); 2.9/1000 vs. 1.8/ 1000 baseline; lowest risk with sertraline Transient neonatal adaptation syndrome (NAS) in 30% of exposed infants	RID[e] < 10%; reports of sedation, fussiness, weight loss in infants; monitor weight gain, behavioral effects
Escitalopram (Lexapro)	5	Increase to 10 mg/day after one week Then, increase to 20 mg/day after 4 weeks[c] (max dose 20 mg/day)		RID[e] < 10%; one report of necrotizing enterocolitis; monitor for sedation, irritability
Fluoxetine (Prozac)	10	Increase to 20 mg/day after one week Then, increase by 10-20 mg every 4 weeks[c] (max dose 80 mg/day)		RID[e] may be > 10%; monitor for behavioral effects, adequate weight gain
Paroxetine (Paxil)	10	Increase to 20 mg/day after one week Then, increase dose by 10-20 mg every 4 weeks[c] (max dose 50 mg/day)		RID[e] generally 5% or less; few adverse effects; monitor for behavioral effects (e.g. insomnia, restlessness, increased crying)
Sertraline (Zoloft)	25	Increase to 50 mg/day after one week Then, increase by 25-50 mg every 4 weeks[c] (max dose 200 mg/day)		Low concentrations in breast milk and infant; RID[e] generally 2% or less; few adverse effects in infants; considered preferred antidepressant in breastfeeding
SNRIs[b]				
Duloxetine (Cymbalta)	30	Increase dose to 60 mg/day after one week (max 120 mg/day; rarely need > 60 mg/d)	NAS (see above); possible inc risk of miscarriage, postpartum hemorrhage	Few reports; RID[e] < 1%; no adverse effects; monitor for sedation, adequate growth
Venlafaxine (Effexor) XR	37.5	Increase to 75 mg/day after one week Then, increase by 37.5-75 mg every 4 weeks[c] (max dose 225 mg/day)	Increased risk for PPHN, NAS (see above); increased risk of gestational hypertension	RID[e] 3-12%; rare adverse effects reported in infants; monitor baby for excessive sedation, adequate weight gain
OTHER[b]				
Bupropion[f] (Wellbutrin) XL	150	Increase by 300 mg/day XL every 4 weeks[c] (max dose 450 mg/day)	No overall inc in malformations ?inc in LVOT[g] heart defects	RID[e] up to 5.1% 2 reports of seizures in breastfed infants
Mirtazapine[h] (Remeron)	7.5	Increase to 15 mg qhs after one week Then, increase by 15 mg every 4 weeks[c] (max dose 45 mg/day)	No increase in malformations NAS (see above)	Few reports; RID[e] < 2%; no adverse effects noted; monitor for behavioral effects, adequate growth

[a]With comorbid anxiety disorder, use lower starting dose

[b]Antidepressants are associated with increased suicidal thinking and behavior in young adults; monitor closely for worsening or emerging suicidality

[c]as needed to treat continued depressive symptoms

[d]maximum dose 40 mg/day due to risk of QT prolongation

[e]RID = relative infant dose

[f]do not give if history of bulimia or seizures; seizure risk limits dose

[g]LVOT = left ventricular outflow tract

[h]increases appetite, sedating; may help with hyperemesis, insomnia

11/22/20

Perinatal Depression Resources

Review article:
Mesches GA, Wisner KL, Betcher HK. A common clinical conundrum: antidepressant treatment of depression in pregnant women. Seminars in Perinatology 2020; 44:151229.

PHQ-9 in different languages:
https://www.phqscreeners.com/select-screener/36

EPDS in different languages:
http://www.perinatalservicesbc.ca/health-professionals/professional-resources/health-promo/edinburgh-postnatal-depression-scale-(epds)

NIMH brochure for patients about perinatal depression (available in English and in Spanish):
https://www.nimh.nih.gov/health/publications/perinatal-depression/index.shtml

Mothers and Babies
Information, training, and resources for therapy for perinatal stress and depression based on cognitive behavioral therapy and attachment theory
http://www.mothersandbabiesprogram.org/

Article about interpersonal therapy (IPT) for postpartum depression:
This is an article for providers that describes interpersonal therapy (IPT) for postpartum depression, its rationale, structure, and content.
Stuart S. Interpersonal psychotherapy for postpartum depression. Clin Psychol Psychother 2012; 19:134-140.

Family Assessment

Amritha Bhat, MD

Family Assessment

Key fact: Perinatal mental health problems have effects on gestational parents, non-gestational parents, on the child, and on the family. Emerging evidence indicates high rates of depression among adoptive parents and similar negative effects on the child. Paying attention to infant behavior and caregiver – baby interactions during perinatal care provides an opportunity for promotion of the relationship between caregivers and babies, and, if needed, early intervention.

Caregiver – Baby interaction (Dyadic interaction)

Foundation for cognitive and emotional development and for secure attachment.
Caregiver depression can impair dyadic interactions.

Components of dyadic interaction:

- Contingent responsiveness
  - Attention to infant and ability to understand cues
- Respect
  - Acceptance of range of infant behavior
- Empathy
  - Understands infant's state of mind and reflects it back, helping infant feel understood
- Time
  - Sufficient contact time with baby to develop understanding of baby
- Tolerance for mistakes
  - Tolerates mistakes and allows for repair

Signs of impaired dyadic interaction

- Infant has difficulty signaling/communicating his/her needs to caregiver.
- Caregiver unreliable, inconsistent, or inappropriate in responding to infant's cues.
- Infant persistently avoids looking at caregiver (or vice versa)
- Infant presents fearful or apprehensive of the caregiver (e.g. looks dazed or flustered when caregiver approaches, freezing, stereotyped behaviors, contradictory behavior such as sideways or aborted approaches to the caregiver)
- Frightening or frightened caregiver behavior (e.g. dissociation, threatening expressions or voice)
- Caregiver experiences infant as rejecting, 'manipulative' or vindictive

Perinatal mental health in fathers / non gestational parents:

- Up to 10% experience depression between first trimester and one year postpartum
- Correlated with (and higher rates with) maternal depression.
- May present as irritability, social isolation, drug and alcohol use.
- Depressed fathers are more likely to engage in domestic violence, and discourage their partner from breastfeeding
- There is an association between paternal postpartum depression (PPD) and behavioral and emotional problems in children
- Same screening tools (PHQ-9, EPDS) can be used to identify depression in the non-gestational parent
- Risk factors for paternal depression include not wanting the pregnancy, marital conflict, comorbid maternal prenatal depression, history of depression, and unemployment.
- American Academy of Pediatrics recommendation is to screen caregivers at 1, 2, 4 and 6-month well child visits
- There is a lack of research on perinatal mental health of lesbian gay bisexual transgender and queer parents

Family Assessment Resources

Promoting First Relationships: Training program for providers who work with parents and young children
Promoting First Relationships

Parent child counseling
https://wellspringfs.org/counseling/parenting-support

Research-based Bringing Baby Home workshops
https://www.gottman.com/professionals/training/bringing-baby-home/

Information for fathers from the American Academy of Pediatrics
A special message to new dads (American Academy of Pediatrics)

Hormones and Mood

Amritha Bhat, MD

Hormones and Mood

Key fact: Certain individuals may be vulnerable to dysregulation of mood during times of hormonal fluctuation (windows of vulnerability such as menarche, premenstrual, postpartum, menopause).

Premenstrual Dysphoric Disorder (PMDD)
Affects 5 - 12% women. Always rule out underlying mood disorder with premenstrual worsening, use prospective recording of symptoms for accurate diagnosis (Daily Record of Severity of Problems OR Premenstrual Symptoms Screening Tool)

Diagnostic criteria:
1. Symptoms in the majority of menstrual cycles, present in the week before menses, improve after the onset of menses, absent 1 week post menses. At least one of

- Marked mood lability
- Marked irritability or anger or increased interpersonal conflicts.
- Marked depressed mood, feelings of hopelessness, or self-deprecating thoughts
- Marked anxiety, tension, and/or feelings of being keyed up or on edge

2. One (or more) of the following symptoms, to reach a total of five symptoms when combined with above symptoms

- Decreased interest in usual activities
- Subjective difficulty in concentration
- Lethargy, easy fatigability, or marked lack of energy
- Marked change in appetite; overeating; or specific food cravings
- Hypersomnia or insomnia
- A sense of being overwhelmed or out of control
- Physical symptoms such as breast tenderness or swelling, joint or muscle pain, a sensation of "bloating," or weight gain.

3. Symptoms associated with clinically significant distress or interference with work, school, usual social activities, or relationships.

PMDD Treatment
Continuous or luteal phase (2 weeks pre menses) SSRIs (fluoxetine, sertraline, paroxetine), venlafaxine, oral contraceptives (ethinyl estradiol 20µg+drospirenine 3 mg)
Calcium 1000 – 2000 mg / day
Chasteberry
Danazol 200–400 mg/d
Severe, non-responsive: Leuprolide 3.75 mg monthly depot with add back estrogen/ progesterone. Intractable: Bilateral Salpingo-oophorectomy/Hysterectomy.

Hormonal contraception

- Individuals with a history of depression should monitor mood closely after starting a hormonal contraceptive.
- Risk of mood worsening higher in adolescents
- If possible, avoid long-acting hormonal contraceptives in those with mood disorders

Hormonal contraception and psychotropic drug interactions:
Lamotrigine: Oral contraceptives can reduce the serum levels of lamotrigine: dose of lamotrigine may need to be increased.
At higher baseline doses of lamotrigine, monitor for side effects / toxicity in pill free week.

Carbamazepine, Oxcarbazepine and Topiramate can decrease plasma levels of hormonal contraceptives and adversely affect their effectiveness

Hormonal treatment for Postpartum Depression (PPD): Brexanolone: Intravenous formulation of allopregnanolone. FDA approved for PPD. 60-hour iv infusion in certified facility. Improvement in depression within a week, benefit lasting through one month follow up in clinical trials. Side effects sedation, loss of consciousness. Safety in breastfeeding not established.

Hormonal treatment for perimenopausal depression:
Hormone Replacement Therapy for prevention of depression may be considered in early menopausal transition for

- women with histories of major depression
- those with more severe vasomotor symptoms
- stressful life events occurring in the prior 6 months

Hormonal treatment for perimenopausal depression in women who don't want to take antidepressants or do not tolerate / respond to antidepressants, or as augmentation of SSRIs/SNRIs:
Transdermal estradiol (plus progestin as indicated)
Risks: breast cancer, thromboembolism, cardiovascular disease.

Perinatal Obsessive-Compulsive Disorder (OCD)

Carmen Croicu, MD

Perinatal OCD

Perinatal period is a high-risk time for the onset or exacerbation of OCD and the risk is higher in the postpartum period than during pregnancy; rates of postpartum OCD exacerbation between 25% and 75%.
Consider screening for OCD in patients presenting with anxiety and depression (high rates of comorbidity with anxiety disorders and MDD).

Screening
Perinatal Obsessive-Compulsive Scale (POCS): self-report, validated for perinatal population, positive screen > 9 (high specificity for OCD, needs diagnostic assessment)
Yale-Brown Obsessive-Compulsive Scale (Y-BOCS): interviewer-rated scale, gold standard for symptom severity measurement

Differential diagnosis of intrusive thoughts about harming the baby
OCD: thoughts of harm are ego dystonic (foreign/disturbing to the patient); good insight, compulsive rituals, no risk of harm
Postpartum psychosis: thoughts of harm are ego syntonic (acceptable to the patient); poor insight, delusions and hallucinations, no compulsive rituals, increased risk of harm
Postpartum depression: associated depressive symptoms

Unique features of perinatal OCD

Pregnancy: gradual onset
-contamination obsessions and cleaning rituals (frequent)
Postpartum: rapid onset (within 4 weeks)
-frequent occurrence of aggressive obsessions and intrusive thoughts/fears of accidentally harming the baby
-avoidance behaviors (e.g. bathing), mental rituals, compulsive checking of infant
-contamination obsessions and cleaning compulsions, checking compulsions

Risks of untreated OCD
adverse pregnancy outcomes (preterm delivery, low-birth weight, preeclampsia), reduced ability to care for the newborn, negative impact on mother-infant bonding

Guidelines for management of perinatal OCD
First-line evidence-based therapies: CBT, specifically exposure and response prevention (ERP), SSRIs
CBT/ERP: 1st line treatment for mild-moderate OCD, highly effective
CBT/ERP + SSRI: for moderate-severe OCD
SSRIs: preferred when the severity of symptoms prevents the mother from engaging in CBT/ERP
Other interventions: psychoeducation provided to mother and families about the nature of infant-focused obsessions

Pharmacological treatment:
SSRIs: 1st line, no data suggesting one SSRI is superior to another, higher dose than used for depression
See antidepressant table in the depression care guide
Fluvoxamine (not included in antidepressant table): limited data, no major malformations with exposure (n~500); low levels in breastmilk (dose<300mg/daily), one infant with diarrhea and vomiting but no other adverse effects
Clomipramine: limited data and less well tolerated compared to SSRI's, increased risk of major malformations (OR 1.4) including cardiovascular defects (OR 1.6), more severe and prolonged neonatal adaptation syndrome; limited data about risks in lactation, no adverse effects in 4 infants

Treatment-resistant OCD
-address specific treatment for comorbid disorders
-add CBT/ERP (if not already initiated) to SSRI
-longer trial of SSRI, dose optimization, switch to a new SSRI
-augmentation of SSRI with atypical antipsychotics: very limited data, quetiapine augmentation (average dose of response 100mg daily) after inadequate response to SSRI (n=17 postpartum women)
-initiate psychiatric referral or psychiatric consultation

Perinatal Posttraumatic Stress Disorder (PTSD)

Carmen Croicu, MD

Perinatal PTSD

Common: prevalence 4-6%; higher rates 1-6 months postpartum; 18% if risk factors for PTSD

Risk factors

Subjective experience of childbirth (negative emotions or experience of labor, loss of control, fear of childbirth for self and/or baby)

Maternal mental health (prenatal depression, perinatal anxiety, postpartum depression)

Trauma history and PTSD (previous traumatic events, childhood sexual trauma, prenatal PTSD, previous traumatic birth experience)

Delivery mode and complications (emergency C-section, complications with pregnancy and/or baby)

Screening

PTSD Checklist Civilian (PCL-5): positive screen > 33, self-report

Perinatal Posttraumatic Stress Disorder Questionnaire (**PPSDQ/PPQ):** positive screen >19, self-report

Screen for comorbidities: depression (highly comorbid), anxiety, substance use

Assessing DSM-5 criteria for PTSD

Traumatic event/Trauma exposure
Duration >1 month, Distress/Impairment
Symptom criteria
≥1 intrusion (flashbacks, nightmares) *and*
≥ 1 avoidance (trauma reminders*) and*
≥ 2 cognitions/mood (detachment, anhedonia, negative emotions) *and*
≥2 arousal (hypervigilance, sleep difficulties)

Risks of untreated PTSD

Risks to mother: avoidance of prenatal care and postpartum checks, postpartum depression, substance use, preterm labor, fear of childbirth (tokophobia)

Risks to fetus: lower birth weight, preterm birth, negative impact on mother-infant bonding, lower rates of breastfeeding

Guidelines for management of perinatal PTSD (if PCL-5>33 and/or clinical diagnosis of PTSD)

First-line evidence-based therapies: SSRIs, Trauma-focused psychotherapies (TFPT)
Initiate SSRI if TFPT not available, not preferred or not appropriate
Other interventions: education, Imagery rehearsal therapy (IRT), CBT-I, non trauma-focused therapy, social support

Evidence-based trauma-focused psychotherapies: all effective in reducing PTSD symptoms

- Exposure therapy (ET)
- Trauma-Focused Cognitive Behavioral Therapy (TFCBT)
- Eye Movement Desensitization and Reprocessing (EMDR)

Pharmacological treatment:

- SSRIs (sertraline, fluoxetine)
- Venlafaxine
- See medication table in Perinatal Depression Care Guide for information about SSRIs, venlafaxine

Avoid starting prazosin (adjunctive agent for PTSD-related nightmares) during pregnancy and lactation: few reports from hypertension treatment during pregnancy, no increased risk of congenital malformations in animal studies, no safety data in lactation; consider risk/benefit analysis if pregnant while stable on prazosin; lower dose than usual if prescribed during pregnancy; monitor blood pressure carefully for hypotension

Interventions not effective: debriefing, counseling, trazodone, benzodiazepines

Postpartum Psychosis

Ramanpreet Toor, MD

Postpartum Psychosis

Prevalence rare, 1-2 per 1000 births. Symptoms occur within 2 weeks of delivery. Sudden onset and rapid deterioration. PSYCHIATRIC EMERGENCY!!

Risk factors

Primiparity
Prior postpartum psychosis
History of mania (bipolar disorder) or psychosis
Family history of postpartum psychosis
Discontinuation of medications

Etiology

Unclear
Since childbirth is trigger, mechanism of onset is considered to be related to specific physiological changes leading to disease in genetically vulnerable population.

Differential Diagnosis
Postpartum depression
Postpartum OCD (Obsessive-Compulsive Disorder)
Other medical cause:
Infections
Autoimmune
Medication reaction (steroids)
Sheehan's Syndrome
Encephalitis
Metabolic

Clinical Presentation
Usually within 2 weeks after delivery; symptoms change rapidly
Early Symptoms:
Insomnia/sleep deprivation, Anxiety, Mood fluctuations, Irritability
Subsequent Symptoms:
-Disorganization
-Abnormal thought content (delusions, hallucinations)
-Obsessive thoughts related to infant, childbirth
-Delirium—disorientation, disturbance in attention, cognition, disorganized behavior. All symptoms developed over short time.
-Thoughts of harm to self or infant

Laboratory Testing
Complete Blood Count (CBC)
Comprehensive Metabolic Panel (CMP)
Thyroid: TSH, T4, Thyroid Peroxidase (TPO) antibodies
Ammonia levels
Urinalysis
Imaging:
If neurological symptoms

Risk Assessment
High risk of self or infant harm
Inquire about thoughts of self-harm or harm to infant
Suicide risk: Screen with C-SSRS
Risk of infant harm: First, determine if thought of harming infant is an intrusive thought (unwanted negative thought that is frequent and difficult to dismiss) or infanticidal ideation (due to a psychosis). Ask questions assessing specific content of the thought, and emotional and behavioral responses to thoughts.
Decisional capacity assessment
Assess capacity to make decisions for any procedures during pregnancy and postpartum. Also assess capacity to parent if psychotic symptoms are present

Treatment:
Inpatient psychiatric admission

Medication
-Antipsychotics: Atypical > Typical
- Lithium: Combined with antipsychotic or monotherapy, especially in bipolar disorder
- Benzodiazepine: promotes sleep, short-term treatment, preferably one with short half-life like lorazepam

Prevention
Pharmacological Prophylaxis:
-In chronic bipolar disorder: during pregnancy and postpartum
- In postpartum psychosis limited to postpartum periods only: Start immediately postpartum
Adequate sleep
Family support
Close monitoring by providers (OB and pediatrician)

Long-term outcomes after first onset postpartum psychosis:
- 56.7% develop lifelong severe psychiatric disorder, most often bipolar disorder
- 6.1% have recurrent psychosis only during the postpartum period
- 36% with no recurrence

References

Bergink V, Rasgon N, Wisner KL. Postpartum Psychosis: Madness, Mania, and Melancholia in Motherhood. Am J Psychiatry. 2016 Sep 9.

Osborne LM. Recognizing and Managing Postpartum Psychosis: A Clinical Guide for Obstetric Providers. Obstet Gynecol Clin North Am. 2018 Sep;45(3):455-468.

Gilden J, Kamperman AM, Munk-Olsen T, Hoogendijk WJG, Kushner SA, Bergink V. Long-Term Outcomes of Postpartum Psychosis: A Systematic Review and Meta-Analysis. J Clin Psychiatry. 2020 Mar 10;81(2).

Antipsychotic Medication Table

Typical Antipsychotic (Brand Names)	**Therapeutic dose range for psychosis**	**Pregnancy**	**Breastfeeding**
Haloperidol (Haldol)	4-20 mg/day Doses can be higher in more severe symptoms	Higher risk for extrapyramidal signs	<10 mg daily produce low levels and no adverse effects Negative effects when combined with other antipsychotics Monitor drowsiness and developmental milestones
Atypical Antipsychotics (Brand Names)			
Risperidone (Risperdal)	3-6 mg	Effective for psychosis, acute agitation Possible increase risk of cardiac malformation	Doses up to 6 mg produced low levels in milk Limited data
Quetiapine (Seroquel)	ER:400-800 mg IR: 300-750 mg	Lowest placental transfer Risk of metabolic syndrome	Doses up to 400 mg produced low levels in milk No adverse effects noted
Aripiprazole (Abilify)	10-30 mg	Lower risk of metabolic syndrome Risk of akathisia	Doses up to 15 mg produced low levels in milk It can LOWER SERUM PROLACTIN
Olanzapine (Zyprexa)	10-20 mg	Effective for mood stabilization, psychosis Sedating Metabolic syndrome! Highest placental transfer: 72.1%	Doses up to 20 mg showed low levels in milk Recommended first line in breastfeeding
Ziprasidone (Geodon)	40-80 mg	Lower risk of metabolic syndrome Limited data	Other antipsychotics preferred given very little data
Clozapine (Clozaril)	300-450 mg/day	Effective for treatment resistant schizophrenia Risk of agranulocytosis for which close monitoring is needed	Limited data Sedation and risk of agranulocytosis

No human data for newer antipsychotics including: Asenapine, Cariprazine, Lurasidone, Brexiprazole.

Perinatal Schizophrenia

Ramanpreet Toor, MD

Perinatal Schizophrenia

Epidemiology: Peak onset childbearing age (26-32 years), almost 50% with diagnosis get pregnant. Risk of relapse in pregnancy if untreated. Most pregnancies are unplanned, poor prenatal care, high risk of rapid repeat pregnancy

Diagnostic criteria:
2 or more of following
- Delusions
- Hallucinations
- Disorganized thinking
- Grossly disorganized or catatonic behavior
- Negative symptoms

Markedly low level of functioning in one or more major areas compared to before symptoms
Symptoms continue for 6 months or more

Effects on pregnancy, infant and neuro-developmental outcomes:
Limited and inconsistent studies.
- Congenital malformations (6 studies)
- Unexplained fetal/infant death
- Fetal deaths from severe neurological malformations
- Gestational hypertension
- Pregnancy and birth complications
- 2-fold increase risk of GDM
- Developmental delay
- More likely to have intellectual disability

Risk assessment:
Worsening symptoms can lead to denial of pregnancy, poor antenatal care. Thoughts about harming baby related to command hallucinations or delusions possible. Important to monitor psychotic symptoms and evaluate safety throughout pregnancy and postpartum
Columbia Suicide Severity Rating Scale (C-SSRS)
Evaluate for thoughts about harming baby: Ask about hallucinations and specifically about command hallucinations (for example voices can tell patients to harm baby). Ask questions assessing specific content of the thought, and emotional and behavioral responses to thoughts.
Decisional capacity assessment
Assess capacity to make decisions for any procedures during pregnancy and postpartum. Also assess capacity to parent if psychotic symptoms present

Assessment of level of functioning, quality of parenting ability and need for social work or child protective services involvement

Treatment:
Individual risk-benefit analysis. In schizophrenia benefits of psychopharmacology mostly outweigh the risk. Increased risk of exacerbation of symptoms for 1 year postpartum so close monitoring recommended.
Psychopharmacology: Antipsychotics
-High potency typical antipsychotics preferred (e.g. Haloperidol)
- Atypical antipsychotics: start quetiapine or olanzapine if not on medication
- Long-Acting Injections: Very limited data. Consider continuing if patient stable prior to pregnancy. Levels more stable in pregnancy.
- **Psychotherapy:** More supportive approach and CBT can also help in psychosis

References

Gentile et al. Schizophrenia and motherhood. Psychiatry and clinical neuroscience. 2019

Gupta et al. Rapid repeat pregnancy in women with schizophrenia. Schizophrenia Research 212. 86-91. 2019.

Jones et al. Perinatal Mental Health 2. Bipolar disorder, affective psychosis and schizophrenia in pregnancy and the post-partum period. Lancet. Vol 384. Nob 2014.

Uguz F. Antipsychotic use during pregnancy and the risk of gestational diabetes mellitus. A systematic review. 2019

Ncrptraining.org

Antipsychotic Medication Table

Typical Antipsychotic (Brand Names)	**Therapeutic dose range for psychosis**	**Pregnancy**	**Breastfeeding**
Haloperidol (Haldol)	4-20 mg/day Doses can be higher in more severe symptoms	Higher risk for extrapyramidal signs	<10 mg daily produce low levels and no adverse effects Negative effects when combined with other antipsychotics Monitor drowsiness and developmental milestones
Atypical Antipsychotics (Brand Names)			
Risperidone (Risperdal)	3-6 mg	Effective for psychosis, acute agitation Possible increase risk of cardiac malformation	Doses up to 6 mg produced low levels in milk Limited data
Quetiapine (Seroquel)	ER:400-800 mg IR: 300-750 mg	Lowest placental transfer Risk of metabolic syndrome	Doses up to 400 mg produced low levels in milk No adverse effects noted
Aripiprazole (Abilify)	10-30 mg	Lower risk of metabolic syndrome Risk of akathisia	Doses up to 15 mg produced low levels in milk It can LOWER SERUM PROLACTIN
Olanzapine (Zyprexa)	10-20 mg	Effective for mood stabilization, psychosis Sedating Metabolic syndrome! Highest placental transfer: 72.1%	Doses up to 20 mg showed low levels in milk Recommended first line in breastfeeding
Ziprasidone (Geodon)	40-80 mg	Lower risk of metabolic syndrome Limited data	Other antipsychotics preferred given very little data
Clozapine (Clozaril)	300-450 mg/day	Effective for treatment resistant schizophrenia Risk of agranulocytosis for which close monitoring is needed	Limited data Sedation and risk of agranulocytosis

No human data for newer antipsychotics including: Asenapine, Cariprazine, Lurasidone, Brexiprazole.

Sleep in the Perinatal Period

Katherine Palm-Cruz, MD

Managing Sleep Disturbances in the Perinatal Period

Sleep disturbances

→ very common during pregnancy: Up to 78% of women (worse in third trimester)

→ fragmented sleep common postpartum

Poor sleep during pregnancy associated with: depression, SGA, pre-eclampsia, gestational diabetes, increased inflammation, and preterm birth

Address/Treat any contributing medical conditions:

- RLS
- Sleep apnea
- Nighttime GERD
- Back pain

Assess/Treat any comorbid mental health conditions:

- Depression
- Anxiety
- Bipolar disorder
- PTSD (nightmares)
- Substance use

Psychological/Behavioral Interventions – first line treatment

- **Sleep hygiene**
  - Regular sleep schedule in calm, dark environment
  - Bed should be only for sleep (avoid screen use in bed)
  - Eliminate caffeine after noon
- **Pregnancy comfort measures**
  - Use pillows to take pressure off knees/back
  - Reduce liquid intake in evenings to minimize nighttime trips to bathroom
- **Cognitive Behavioral Therapy for Insomnia**
- **Exercise** (at least a few hours or longer before bed) – associated with longer sleep continuity in pregnancy
- **Postpartum**
  - Ensure adequate time for sleep – split infant night care between caregivers (use formula/pump so others can assist with feeding)
  - Ask about bed-sharing with infant which can interfere with sleep and recommend avoiding, especially if using sedating medications.

If hypnotic medications are necessary – use low dose for short period along with behavioral interventions

See medication chart for details on medications

Insomnia Medications and the Perinatal Period

Medication	Pregnancy	Lactation	Dose	Side Effects
<u>Benzodiazepines</u> *Lorazepam preferred benzodiazepine in pregnancy	See information on benzodiazepines in Perinatal Anxiety Medications Table In general, do not appear to be associated with congenital malformations Appear to be associated with increased risk of spontaneous abortion Possibly associated with preterm birth	See information on benzodiazepines in Perinatal Anxiety Medications Table Lorazepam preferred benzodiazepine in breastfeeding – produces low levels in breastmilk	varies	***FDA boxed warnings in general population:** -abuse, misuse, addiction, physical dependence, and withdrawal -Opiate and benzodiazepine combination ***Side effects:** Sedation, poor coordination, risk of falls, memory impairment
<u>"Z Drugs"</u> Nonbenzodiazepine Benzodiazepine Receptor Agonists *Zolpidem preferred Z drug in pregnancy				*Likely increased risk of falls *Impaired cognitive function *headache, drowsiness, dizziness, and nausea. ***Complex Sleep Behaviors**: sleepwalking, sleep driving, sleep cooking
Zolpidem	Based on limited human data no increased risk of congenital malformations. Inconclusive data about increase of risk for preterm birth, small for gestational age, low birthweight	Doses in breastmilk are low and adverse effects are not expected. Monitor infant for sedation	5mg	
Eszopiclone	Limited data is based on zopliclone studies and is not expected to increase risk of congenital malformations. Less data than zolpidem.	No data about use in breastfeeding – recommend starting with a different medication	1-3mg	
Zaleplon	Limited data does not show increased risk of congenital malformations	Produces low levels in breastmilk and has a short half-life. Adverse effects to infant are not expected.	5-20mg	
<u>Antihistamines</u> Doxylamine Hydroxyzine Diphenhydramine	Limited published data in pregnancy. Most data does not show a consistent association with birth defects. There are some isolated associations reported of cardiac malformations and non-cardiac malformations, but data has not been consistent.	Passes into breastmilk – associated with dose dependent sedation and irritability. Higher doses could decrease milk supply	Doxylamine 25mg Hydroxyzine 25-50mg Diphenhydramine 25-50mg	*sedation *dizziness * impaired coordination *GI distress *thickened bronchial secretions

Medication	Pregnancy	Lactation	Dose	Side Effects
Melatonin	Recommend avoiding in pregnancy until more data is available since exogenous melatonin could theoretically interfere with fetal circadian rhythms.	Melatonin is a normal component of breastmilk, but it is unclear the effect of exogenous melatonin. There was a case report of bleeding possibly related to melatonin		*vivid dreams *irritability *headache *sedation
Trazodone	Very limited data in pregnancy, but not expected to increase risk of congenital malformations	Limited data, but produces low levels in breastmilk and not expected to cause adverse effects	25-100mg	*drowsiness *dizziness *orthostatic hypotension *GI symptoms
Mirtazapine	*antidepressant – consider in patients with insomnia comorbid with depression. Can also help with nausea Limited data in pregnancy, but does not appear to be associated with increased risk of congenital malformations. There are conflicting reports about slight possible increase in spontaneous abortion, preterm and low birth weight. Also risk of postnatal adaptation	Limited data, but doses of up to 120mg produce low levels in breast milk and not expected to cause adverse effects	7.5mg – 15mg (for insomnia, up to 45mg for depression)	*somnolence *increased appetite *constipation
Quetiapine	***due to side effects, recommend not using for insomnia alone, unless there is another indication for quetiapine** (psychosis, bipolar disorder, antidepressant augmentation, treatment refractory anxiety) *based on limited data, no increased risk of congenital malformations. *possible increased risk of gestational diabetes ***FDA warning for all atypical antipsychotics (including quetiapine):** 3rd trimester exposure increases risk of adverse effects in infant – EPS, sedation, breathing and feeding difficulties, sedation, agitation, tremor	Doses of up to 400mg produce low levels in breastmilk	*depends on indication (doses can range from 25mg – 800mg)	***FDA warning for all atypical antipsychotics:** 3rd trimester exposure increases risk of adverse effects in infant – EPS, sedation, breathing and feeding difficulties, sedation, agitation, tremor *side effects

The following medications for insomnia have no data in pregnancy and lactation and thus should be avoided if possible: **suvorexant, lemborexant, ramelteon**

Sleep Resources

VA based CBT-I app:
https://mobile.va.gov/app/cbt-i-coach

Patient handouts on pregnancy and sleep:
https://www.sleepfoundation.org/pregnancy
http://www.sleephealthfoundation.org.au/pdfs/Pregnancy-and-Sleep.pdf

Substance Use in Pregnancy

Nadejda Bespalova, MD

Substance Use in Pregnancy

Screening, Brief Intervention, Referral to Treatment (SBIRT) model

All pregnant people should be screened for risky substance use at the first prenatal or preconception counseling visit (NIDA Quick Screen, 5 P's)

Rates of Use by Pregnant Patients

~15% tobacco/nicotine, 9% alcohol, 5% illicit drugs

Negative Screen – no current use, low-level use prior to pregnancy

-Provide education – recommendation is to avoid alcohol, tobacco, cannabis, and illicit substances in pregnancy

-Offer MotherToBaby fact sheets (available for most commonly used substances at https://mothertobaby.org/fact-sheets/

Positive Screen – current use and/or history of heavy use or SUD diagnosis

-Open-ended questions, avoid judgmental language

"What substances have you been using in the last 2-3 months?"

"How often are you using each substance and how much at a time?

"How are you using these substances?" (ingesting, smoking, injecting)

"How is substance use affecting your life?"

"Would you be interested in quitting/decreasing use/treatment?"

"Are you currently in treatment or have you had prior treatment?"

Currently Misusing Substances – Brief Intervention

"What is your goal?"

"How ready are you to make this change on a scale from 1 to 10?"

"How confident are you that you can make this change on a scale from 1 to 10?"

"What can we do to increase this score?"

Not Currently Misusing Substances – high risk history only or currently engaged in treatment

-If engaged in treatment – coordinate with SUD treatment provider, encourage continuing engagement
-Monitor closely, repeat screen each trimester
-Consider urine testing
-Call PAL for Moms with questions

Referral to Treatment

-Provide medications if possible/indicated (see attached)

-Treatment Resources in Washington State:
https://www.warecoveryhelpline.org/
https://www.hca.wa.gov/assets/free-or-low-cost/pregnant-women-sud-resource-guide.pdf
https://www.hca.wa.gov/health-care-services-supports/apple-health-medicaid-coverage/chemical-using-pregnant-women
https://depts.washington.edu/pcapuw/

-Peer Support:
Alcoholic/Narcotics Anonymous: www.aa.org; www.na.org
SMART Recovery: www.smartrecovery.org

Risks of Substance Misuse in Pregnancy

*Overdose – make sure patient has Narcan kit
https://stopoverdose.org/

*Lower engagement with appropriate prenatal care
*Infection with injection use
*Legal problems/loss of parental rights
*Risks to pregnancy/child depend on substance and frequency/amounts

Substance Use Screening

NIDA Quick Screen: https://www.drugabuse.gov/sites/default/files/pdf/nmassist.pdf

4 P's for Substance Abuse:

1. Have you ever used drugs or alcohol during **P**regnancy?

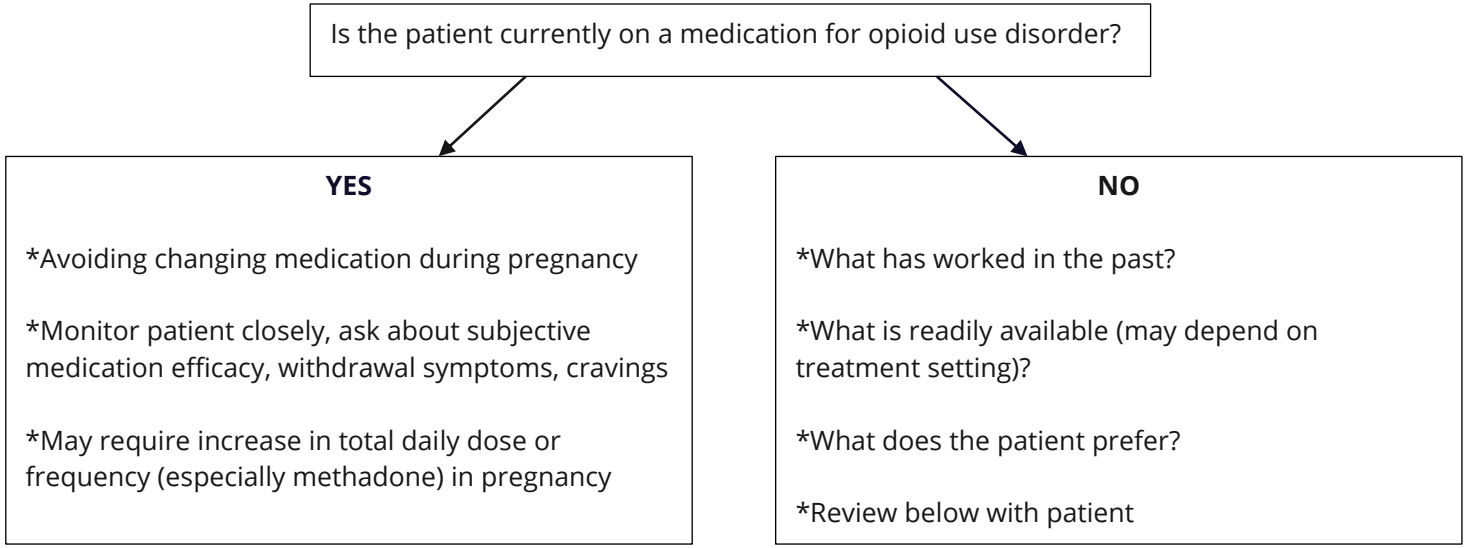
2. Have you had a problem with drugs or alcohol in the **P**ast?

3. Does your **P**artner have a problem with drugs or alcohol?

4. Do you consider one of your **P**arents to be an addict or alcoholic?

Scoring: Any "yes" should be used to trigger further discussion about drug or alcohol use.

Selecting a Medication for Opioid Use Disorder in Pregnancy



First-line medication	Pros	Cons	Pregnancy Considerations	Breastfeeding
Methadone	-Structured programs, daily dosing to start -Programs may include groups/counseling -Associated w/ better treatment retention	-May be difficult to obtain/program requirements are a barrier -QTc prolongation risk -Higher risk of overdose -More med interactions	-Metabolism changes in pregnancy, may need higher and/or split dose	-Passes into breastmilk in small amounts -Breastfeeding ok (and should be encouraged to decrease NOWS) if no other contraindications
Buprenorphine	-Easier to obtain -Low risk of overdose -May easily switch to methadone if needed -Associated with less severe NOWS	-Pt must be in withdrawal to start -May complicate pain management	-May need higher dose in pregnancy -Monoproduct (Subutex) usually recommended in pregnancy	-Passes into breastmilk in small amounts -Breastfeeding ok (and should be encouraged to decrease NOWS) if no other contraindications