

Perinatal Mental Health Care Guide 2025

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DEPARTMENT OF PSYCHIATRY
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Table of Contents

Introduction	5
Prescribing in the Perinatal Period	7
Resources.....	9
Perinatal Attention-Deficit/Hyperactivity Disorder (ADHD)	15
Care Guide	16
Medications.....	17
Resources.....	18
Peripartum Agitation.....	19
Care Guide	20
Medications.....	23
Resources.....	24
Perinatal Anxiety.....	25
Care Guide	26
Medications.....	28
Resources.....	29
Assessing Safety.....	30
Assessment of Safety Risk in Perinatal Populations.....	31
Intimate Partner Violence (IPV) Risk Assessment	36
Assessment of Risk for Harm of Infants and Children	43
Perinatal Bipolar Disorder	47
Care Guide	48
Medications.....	49
Resources.....	50
Perinatal Cannabis Use	51
Care Guide	52
Resources	55
Perinatal Depression	56
Care Guide	57
Medications.....	58
Resources.....	60
Perinatal Eating Disorders	61
Care Guide	62
Resources	63
Family Assessment	64
Care Guide	65
Resources	66
Hormones and Mood	67
Care Guide	68
Resources	69
Infertility	70

Care Guide	71
Resources	73
Perinatal Obsessive-Compulsive Disorder (OCD)	74
Care Guide	75
Resources	77
Perinatal Posttraumatic Stress Disorder (PTSD)	78
Care Guide	79
Resources	81
Prevention of Perinatal Mood Disorders.....	82
Care Guide	83
References.....	84
Pregnancy Loss	85
Care Guide	86
Resources	89
Postpartum Psychosis.....	91
Care Guide	92
Medications.....	93
References.....	95
Perinatal Schizophrenia	96
Care Guide	97
Medications.....	98
References.....	100
Sleep in the Perinatal Period	101
Care Guide	102
Medications.....	103
Resources	105
Substance Use in Pregnancy	106
Care Guide	107
Medications.....	109



Perinatal Psychiatry Consultation Line

Perinatal PCL

UW Psychiatry & Behavioral Sciences

(877) 725-4666

UW Perinatal Psychiatry Consultation Line (Perinatal PCL), a Free Consult Line for Providers

The [UW Perinatal Psychiatry Consultation Line \(Perinatal PCL\)](#) 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.

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 Perinatal PCL 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 Perinatal PCL psychiatrist group:

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We hope that this guide is helpful and welcome any feedback. Please also feel free to call our Perinatal Psychiatry Consultation Line at 1-877-PAL4MOM/ 1-877-725-4666 with any questions that you have about individual patients, clinical situations, general issues, or resources and referrals.

Disclaimer

Perinatal Mental Health Care Guide - Healthcare Professional User Permission (License)

The University of Washington ("UW") and Perinatal Psychiatry Consultation Line ("Developers") give permission for you, a prenatal, primary care, mental health, or public health provider ("You"), to use the Perinatal Mental Health Care Guide ("PMHG") to help screen for, diagnose, and treat pregnant and postpartum individuals with mental health problems. UW and the Developers allow You to use PMHG on the following conditions:

You acknowledge and agree that the intended audience for the PMHG is health care professionals seeking resources to screen for, diagnose, and treat pregnant and postpartum individuals with mental health problems. **If You are not a licensed health care provider, You may not use PMHG.**

UW reserves the right to modify or make improvements in the PMHG at any time without notice. You agree that if you provide feedback to the Developers, that the Developers and UW are permitted to use any information provided by You in making changes to the PMHG.

You acknowledge and agree as a condition of using PMHG, that the information contained in PMHG is intended as a supplement to, and not a substitute for, Your knowledge, expertise, skill and professional judgment. UW makes no representations or warranty on the accuracy, validity, completeness or availability of information or results obtained from the PMHG. Information provided by the PMHG should not be construed to indicate that any particular outcome, treatment or treatment combination is safe, appropriate or effective in any given patient. The content used by PMHG is based on current evidence in the literature, as of the time of writing. The Developers have attempted to distill current knowledge into focused, practical points. The modules provided in the PMHG may not be predictive of a given patient's risks. You acknowledge that the PMHG is solely a health care provider information resource and is made available as a research courtesy "AS IS," without obligation by UW to provide accompanying services or support.

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Prescribing in the Perinatal Period

Most Perinatal PCL calls include questions about the effects of medications and about prescribing during pregnancy and breastfeeding. Each Perinatal PCL 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(s).

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 during pregnancy.
- 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 the 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 the 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:

Payne JL. Psychiatric medication use in pregnancy and breastfeeding. *Obstet Gynecol Clin N Am* 2021; 48:131-149.

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



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

Prescribing providers call anytime, 24/7

Non-prescribing providers call Mon-Fri, 8- 5

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

Perinatal Psychiatry Consultation Line (PPCL)

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.perc.psychiatry.uw.edu/perinatal-pcl

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

www.ictp.uw.edu/programs/uw-pacc



Seattle Children's®
HOSPITAL • RESEARCH • FOUNDATION

Washington State
Health Care Authority

General Resources for Providers

LactMed

Peer-reviewed database that provides data on the safety of medications 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.infanrisk.com/>

Massachusetts General Hospital Center for Women's Mental Health

A reproductive psychiatry resource and information center.

<https://womensmentalhealth.org/>

Reprotox

Database with information about medications during pregnancy, breastfeeding, and development. Requires subscription.

<https://reprotox.org/>

Statewide UW Resources for Providers

Perinatal Psychiatry Consultation Line

(Perinatal PCL): (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://perc.psychiatry.uw.edu/perinatal-pcl>

Psychiatry Consultation Line (PCL):

(877) 927-7924

Telephone consultation and recommendations for providers caring for *adult patients (18+)* with mental health and/or substance use disorders. Available 24/7 for prescribers, weekdays for non-prescribers.

<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

Perinatal Support Washington: (888) 404-7763

Organization offers a warm line, perinatal mental health directory, provider training, and more.

<https://perinitalsupport.org/>

UW Perinatal Telepsychiatry Clinic

A telepsychiatry clinic for perinatal patients that provides one-time evaluations (not ongoing treatment).

<https://perc.psychiatry.uw.edu/perinatal-psychiatry-virtual-clinic/>

Northwest Infant Survival and SIDS Alliance

Emotional support for those who are affected by pregnancy loss and infant loss.

<https://nwsids.org/>

Yes We Can Consultation Line: (833) 937-9326

The Washington Society of Addiction Medicine (WSAM)'s addiction consultation line answers providers' questions about perinatal substance use. They also have a listserv for provider support.

https://perc.psychiatry.uw.edu/yeswecan-listserv_wsam/

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, and miscarriage.

<https://resolve.org/support/helpline/>

Maternal Mental Health Hotline: (833) 852-6262

Free, 24/7 hotline for people who are pregnant and new parents. Offers emotional support and referrals to resources in English and Spanish and interpreter services in 60 languages.

<https://mchb.hrsa.gov/national-maternal-mental-health-hotline>

Perinatal Substance Use Resources

Washington Recovery Helpline: (866) 789-1511

24/7 helpline for substance use referrals and support.

<http://www.warecoveryhelpline.org/>

Yes We Can Consultation Line: (833) 937-9326

The Washington Society of Addiction Medicine (WSAM)'s addiction consultation line answers providers' questions about perinatal substance use. They also have a listserv for provider support.
https://perc.psychiatry.uw.edu/yeswecan-listserv_wsam/

The First Clinic

Legal aid to prevent substance-use-related family separation for families with a baby in the hospital
<https://thefirstclinic.org/>

Parent-Child Assistance Program (PCAP)

Free case management program for pregnant and parenting people with substance use disorders.

<https://pcap.psychiatry.uw.edu/>

Pregnant and Parenting Women (PPW)

Program

Residential and outpatient SUD treatment for Medicaid-eligible pregnant and parenting people.
<https://www.hca.wa.gov/assets/program/fact-sheet-pregnant-parenting-women-services.pdf>

Substance Using Pregnant People (SUPP)

Program

An inpatient treatment program for Medicaid-eligible people who are pregnant.
<https://www.hca.wa.gov/health-care-services-supports/apple-health-medicaid-coverage/chemical-using-pregnant-women>

Statewide General Mental Health Resources

Mental Health Crisis Lines: 988

Look up your [county's crisis line](#) or call 988 to be connected to mental health crisis services
<https://www.hca.wa.gov/free-or-low-cost-health-care/i-need-behavioral-health-support/mental-health-crisis-lines>

Designated Crisis Responders (DCRs) List

A contact list for designated crisis responders (DCRs) in each of the 39 counties in Washington.
<https://www.hca.wa.gov/assets/billers-and-providers/designated-crisis-responders-contact-list.pdf>

Washington Counselors of Color Network

A database of multicultural counselors and counselors of color in Washington state.
<https://www.multiculturalcounselors.org/>

WA Mental Health Referral Service for Children and Teens: (833) 303-5437

A free service that connects families with mental health providers.

[Using WA Mental Health Referral Service for Children/Teens \(seattlechildrens.org\)](https://Using WA Mental Health Referral Service for Children/Teens (seattlechildrens.org))

Ingersoll Gender Center Provider Directory

A database of gender-affirming health care providers in WA, 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/>

First Steps Maternal and Infant Care

This 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>

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>

Mount Sinai Parenting Guides

Parent-facing guides about infant and toddler development and behavior

[Parent Guides | Mount Sinai Parenting Center](#)

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/>

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/>

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

Prevalence: 3-4% of adults (prevalence unchanged during pregnancy and postpartum, but may worsen with increased demands of pregnancy and parenting)

Common Comorbidities: Mood disorder (38%), anxiety disorder (47%), substance use disorder (15%)

Medication Use: Roughly 20% of pregnant people choose to continue ADHD meds throughout the pregnancy. Individuals with comorbid depression who stopped their stimulant had worsening depression despite taking an antidepressant.

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
- *poor maternal nutrition & decreased prenatal vitamin use

Next, assess level of impairment:

- Have they ever been off medications in the past? What happened?
Do they need medications to function at work or at home?
Are comorbidities worse off of medication (e.g. substance use)?
Are they 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
- *Strategies (routines, lists, calendars, timers, taking breaks)
- *Regular exercise
- *Coaching
- *Mindfulness-based interventions
- *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/scheduled 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 (~6700 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 and preeclampsia. No consistent association with other major maternal or neonatal outcomes. Longer-term neurodevelopment and growth data are reassuring.	Low levels in breastmilk, undetectable in infant serum. Limited data without adverse effects. High doses may interfere with milk supply.
Prescribed amphetamines	No consistent association with malformations (~5600 exposures).	Small increased risk of preterm birth and preeclampsia. No consistent association with other major maternal or neonatal outcomes. Longer-term neurodevelopment and growth data are reassuring.	Infant dose 5-15% maternal dose. Very limited data without adverse effects. Monitor for irritability, insomnia, and feeding difficulties. High doses may interfere with milk supply.
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 (~5450 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 ADHD Resources

Scoten O, Tabi K, Paquette V, Carrion P, Ryan D, Radonjic NV, Whitham EA, Hippman C. Attention-deficit/hyperactivity disorder in pregnancy and the postpartum period. Am J Obstet Gynecol. 2024 Mar 1:S0002-9378(24)00376-4. doi: 10.1016/j.ajog.2024.02.297. Epub ahead of print. PMID: 38432409.

Baker AS, Freeman MP. Management of attention deficit hyperactivity disorder during pregnancy. Obstet Gynecol Clin North Am 2018; 45(3):495-509

Ornoy A. Pharmacological Treatment of Attention Deficit Hyperactivity Disorder During Pregnancy and Lactation. Pharm Res. 2018;35(3):46. Published 2018 Feb 6. doi:10.1007/s11095-017-2323-z

Peripartum Agitation

Zoe Renner, MD & Laurel Pellegrino, MD



Peripartum Agitation

Peripartum Agitation Basics:

Definition: Combative and aggressive behavior, physical restlessness, or extreme irritability (1). Agitation in pregnancy is an **obstetric emergency** due to risk of harm to mother and/or baby/fetus.

Risks of untreated peripartum agitation: Preterm delivery, placental abnormalities, low birth weight, postnatal death, spontaneous abortion (3).

Determine the cause!

- Medical sources of agitation (2,3)
 - o Delirium due to medical condition, amniotic or venous thromboembolism, pre-eclampsia/eclampsia, hyperthyroidism, trauma, infection, etc.
 - o Substance Intoxication or Withdrawal
 - o Pain
 - o Traumatic Brain Injury (TBI)
- Psychiatric sources of agitation (2-4)
 - o New onset vs exacerbation/decompensation of existing condition.
 - o Abrupt discontinuation of psychotropic medications due to concern over fetal risk (1).
 - o Post-partum psychosis
 - o "Personality" characteristics, maladaptive coping patterns

Step 1: Verbal De-escalation & Behavioral Redirection

Verbal Strategies (2,3)

- Speak slowly in calm, low voice. Be concise.
- o Be present and genuine.
- o Convey empathy by listening, validating, and providing accurate reflections. *"It sounds like you are feeling overwhelmed for a lot of good reasons."*
- o Normalize emotions. *"I know you feel like ___ and that must be tough. Others in this predicament have also felt this way. In my experience, I have found that ____."*
- Identify wants/needs. *"What helps you at times like this?"*
- 'Agree' or 'Agree to Disagree.' Do not be provocative

Ensure safety of yourself, staff & scene (1)

- Ensure patient and the room are free of safety hazards/weapons.
- Remain at a safe distance from patient with clear exit from room.
- Alert appropriate security personnel and/or have mechanism for alerting additional staff/security.

Behavioral Strategies (2,3)

- Respect personal space
- Limit the number of people in the room. Use patient's preferred caregivers when possible.
- Keep the environment as "low stim" as possible
- Offer comfort items (warm blanket, food, etc.)
- Offer choices/options
- Pause if medically possible. *"Do you need to take a short break?"*
- Offer a PO medication *"I think you would benefit from medication"* or *"I think you need a medication."*

Step 2: Pharmacologic Intervention

Goal: Maintain safety of patient and providers during assessment and treatment

Choosing a medication:

- Never feel like you have to order a medication immediately. If unsure, go lay eyes on the patient.
- Choose medication based on most likely underlying cause of agitation when possible (ex. lorazepam for alcohol withdrawal, antipsychotic for psychosis, etc; 2,3)
- Limit number of medications. Give patients known medications first to limit exposures to fetus.
- Match IM/PO/IV medications.
- Consider onset of action
 - o IV works the fastest: approximately 5-20 minutes.
 - o PO generally takes at least 30 mins-1 hour.
- Choose a medication appropriate for the severity of agitation (3)
 - o **Mild: PO meds**
 - Diphenhydramine 25 – 50 mg PO, IM (can worsen delirium)
 - o **Moderate: Consider IV/IM**
 - Haloperidol 0.5 mg – 2 mg PO, IV, IM
 - Olanzapine 2.5 mg – 5 mg Rapidly dissolving, PO, IM (do not co-administer IM olanzapine and benzodiazepine; following IM olanzapine, wait at least one hour and monitor for respiratory depression prior to use of benzo)
 - Lorazepam 0.5 – 2 mg PO, IV, IM
 - o **Severe: IV/IM**
 - Haloperidol +/- lorazepam +/- diphenhydramine

Administering medications:

- Offer PO first to honor autonomy.
- Use IM/IV only if refusal of PO, Danger to Self (DTS) and/or Danger to Others (DTOs).
- If does not have decisional capacity (ex. floridly delusional), okay to start with IV option.
- Start with PRN option. Recommend scheduling medications if persistent, regularly occurring agitation.
- Taper/Discontinue once agitation has resolved for a few days.
- Put in a not to exceed (NTE) in order.

Safety of Medications for Agitation in Pregnancy*

- Anti-psychotics
 - o Most pregnancy data is on haloperidol, olanzapine, and quetiapine.
 - Haldol (1st gen) is less likely to have sedative or hypotensive effects than second gen (3) but more likely to have EPS.
 - o One-time doses are generally low risk (1).
 - o If frequent administration of anti-psychotics in 3rd trimester, newborns should be monitored for risk of neonatal EPS, sedation, breathing and feeding difficulties, increased/decreased muscle tone, agitation, tremor. These complications may resolve on their own or require additional hospitalization (7).
- Benzodiazepines
 - o PO lorazepam has been safely administered during delivery of full-term infants, even at high doses. Use caution with IV lorazepam and in preemies (10).
 - o If frequent administration during third trimester, monitor newborns for floppy baby or neonatal withdrawal syndrome (sedation, hypotonia, feeding difficulties).
- Contra-indicated: valproic acid (not generally used for acute agitation)
- Dosing: Medications metabolized by CYP P450 enzymes more rapidly metabolized during pregnancy and may require higher doses, including lorazepam, clonazepam, quetiapine.

*For more details about specific medications and effects during pregnancy, see table below.

Step 3: Restraints as a last resort during pregnancy

Use as a **last resort** only if:

1. Imminent risk to mother, fetus/newborn, and/or staff
2. Failure of prior interventions/least restrictive options

DO: Use least restrictive options possible (fewer restraints the better). Continue frequent monitoring of patient/vital signs/fetal heart tones while in restraints. Ensure adequate comfort, hydration, nutrition, and medical stability throughout process. Limit/end restraints as much as possible.

DO NOT USE: abdominal restraints, restraints that increase risk of falling forward (wrist restraints behind the back), four-point restraints, restraints during labor & delivery, use out of convenience or punishment (5).

>20 weeks: Place pregnant patient partway to the left with support under the right hip – right hip should be 10-12 cm off the bed with supporting pillows/blankets. **Do not restrain in supine position or on right side** due to risk of inferior vena cava compression syndrome (hypotension, tachycardia, fetal distress due to compression vena cava, blocking flow of venous blood to the heart; 5).

Be mindful of implicit bias and thoughtful about escalation of interventions

Ethical Considerations & Decisional Capacity

Weigh **patient autonomy vs beneficence** to the birthing parent and baby.

Evaluate decisional capacity:

- Decisional capacity is evaluated on a moment-to-moment basis about each medical decision
- Patients have decisional capacity when they can:
 - o Voice a clear and consistent **choice**
 - o **Understand** the relevant medical information
 - o **Appreciate** the situation and its consequences
 - o Explain their **rationale**
- The stringency of this assessment depends on the risk-to-benefit ratio. A patient can **assent** to a life-saving procedure even if they do not have decisional capacity and therefore cannot complete full **informed consent**. This is an attempt to preserve patient autonomy.

If a patient **lacking decisional capacity** refuses treatment: (8,9)

- If possible, consult the hospital's clinical ethics team and legal counsel
- Determine whether the intervention is **medically necessary** (e.g. cesarean section for complete placenta previa) and whether it is **urgent/emergent**
- **Assisted decision-making:** If there is time, first attempt to restore capacity using verbal interventions, respectful persuasion, and pharmacologic interventions as necessary.
- **Surrogate decision-making:** If patient is still refusing, a legally designed surrogate or advance directives from the patient meet the **substituted judgment** standard.
- **Coerced clinical management:** If patient still cannot assent to medically necessary treatment, then proceeding with treatment can be ethically justified if nonintervention would cause more harm to the mother and/or baby. Continue to explain what is happening to the patient and attempt to minimize their stress/anxiety.

Peripartum Agitation Medications

Medication	Indications	Birthing parent Side Effects	Effects on Fetus	Starting Dose & Ranges	Onset of Action	Notes
Haloperidol (1 st line if etiology of agitation unknown)	<ul style="list-style-type: none"> Mod/Severe Agitation Delirium/ Organic etiology Primary Psych (ex. psychosis) 	<ul style="list-style-type: none"> EPS (higher risk) Dystonia Sedation NMS Anti-cholinergic Effects QTc prolongation (worse with IV) 	Risk of neonatal EPS for ongoing use; no data of increased risk from one time use.	<ul style="list-style-type: none"> PO: 0.5-1 mg TID PRN IV: 0.5 - 2 mg TID PRN IM: 5 mg once time Can increase to 4-20 mg/day NTE: 20 mg/day 	PO: 45 – 60 mins IV > IM: 15 – 30 mins	<ul style="list-style-type: none"> Get EKG baseline to evaluate QTc. Continue to monitor with increased doses. IV preferred over IM if IV available (IM higher risk of EPS) IM: recommend giving with diphenhydramine 25 – 50 mg to prevent EPS
Olanzapine (alternative choice)	<ul style="list-style-type: none"> Mod/Severe Agitation Primary Psych (ex. mood stabilization, psychosis) 	<ul style="list-style-type: none"> Sedation Orthostatic hypotension EPS Metabolic syndrome 	FDA warning (updated 2011) for EPS, sedation, breathing/ feeding difficulties, agitation, tremor, change in muscle tone; may resolve spontaneously or require additional hospital care.	<ul style="list-style-type: none"> PO: 2.5 – 5 mg PO or IM BID PRN Can increase to 10-20 mg/day NTE: 20 – 30 mg/day 	PO: 30 mins – 1 hour IM: 15 – 30 minutes	<ul style="list-style-type: none"> Get EKG baseline to evaluate QTc. Continue to monitor with increased doses. Do not administer IM medication with benzodiazepine (risk of respiratory distress) Highest placental transfer (72.1%)
Quetiapine (alternative choice)	<ul style="list-style-type: none"> Primary psych (mood stabilization) Delirium Anxiety 	<ul style="list-style-type: none"> Sedation Weight gain Metabolic syndrome Possible risk of increased gestational diabetes 		<ul style="list-style-type: none"> 25 – 100 mg PO NTE: 300 mg daily for agitation 		<ul style="list-style-type: none"> Lowest possible placental transfer (3.7%)
Lorazepam (preferred benzo in pregnancy)	<ul style="list-style-type: none"> Alcohol or Benzo withdrawal Stimulant intoxication AMS 2/2 NMS, serotonin syndrome, catatonia Personality 	<ul style="list-style-type: none"> Sedation Respiratory distress Memory Impairment Risk of falls/ Incoordination Tolerance Dependence Withdrawal 	Exposure associated with "floppy baby" syndrome and neonatal withdrawal (requiring ICU admission); more likely from long term use	<ul style="list-style-type: none"> 0.5 – 2 mg PO, IV, IM up to 2-3 times daily Increase as needed to 2-6 mg daily divided in doses NTE: 10 mg/day in divided doses 	PO: 15 – 30 mins IM, IV: rapid	<ul style="list-style-type: none"> Black box warning: avoid use with opioids; abuse/misuse potential
Diphenhydramine	<ul style="list-style-type: none"> Mild agitation Anxiety 	<ul style="list-style-type: none"> Sedation Anti-cholinergic effects GI distress Impaired coordination 	One case report of neonatal withdrawal symptoms (irritability, sedation, tremulous, diarrhea).	<ul style="list-style-type: none"> 25 – 50 mg PO, IV, or IM Q1-4 hours NTE: 300 mg/day 	PO: 15 – 20 mins IM, IV: rapid	<ul style="list-style-type: none"> Dose dependent anti-cholinergic effect can make delirium worse

Peripartum Agitation References and Resources

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4. Aftab A, Shah AA., et al Behavioral emergencies: special considerations in the pregnant patient. *Psychiatry Clin North Am 2017; 40(3):435–448.*
5. Best Practices in the Use of Restraints with Pregnant Women and Girls Under Correctional Custody. <https://www.ojp.gov/library/publications/best-practices-use-restraints-pregnant-women-and-girls-under-correctional>. *Bureau of Justice Assistance. U.S. Department of Justice. 2014.*
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11. Black JR, Hovis E, Spada ML, Li L. CL Case Conference: Managing Substance Use and Agitation in Pregnancy. *J Acad Consult Liaison Psychiatry. 2025 Feb 18:S2667-2960(25)00024-2. doi: 10.1016/j.jaclp.2025.02.002. Epub ahead of print. PMID: 39978638.*

Perinatal Anxiety

Deborah Cowley, MD



Perinatal Anxiety

Common: 1 in 5 perinatal individuals

Screening: GAD-7; with perinatal depression screening

Anxiety Symptoms:

Psychological:

- Excessive worry
- Feeling on edge
- Hard to reassure
- Intrusive thoughts
- Feeling out of control
- Panic

Physical:

- Muscle tension
- Fatigue
- Gastrointestinal symptoms
- Palpitations, chest pain
- Shortness of breath
- Dizziness

Worries about:

- Fetal wellbeing
- Pregnancy complications
- Labor and childbirth
- Health and safety of the baby
- Ability to parent

What is the difference between clinically significant anxiety and normal worry? Many people have worries during pregnancy or postpartum and this can be normal. Clinically significant anxiety is excessive or irrational, causes significant distress, and/or interferes with functioning (e.g., ability to care for self/children, relationships, work, school)

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



Perinatal Anxiety (Cont.)

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 on the next page 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 switching to another 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 warnings)	No consistent increase in malformations ^c Increased rate of spontaneous abortion, preterm birth Neonatal withdrawal, "floppy infant" syndrome; increase in NICU admissions Those with lower placental passage (e.g. lorazepam) preferred	RID 3%; reports of infant sedation, withdrawal symptoms with weaning/discontinuation Sedation, apnea reported in infants; monitor for sedation, poor feeding, poor weight gain Sedation, weight loss reported in breastfed infants Low levels in breast milk, no reports of sedation. Preferred benzodiazepine in lactation.
Clonazepam ^a (Klonopin)	0.25 BID	Increase in increments of 0.125-0.25 mg BID to 1-2 mg daily as needed			
Diazepam ^a (Valium)	2-5 BID	2-10 mg 2-4 times daily			
Lorazepam ^a (Ativan)	0.5-1, 2-3 times daily	Increase as needed to 2-6 (max 10) mg daily in divided doses			
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 (75 reports of first trimester exposure, one infant with malformations); no inc in malformations in animals	Limited data; 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	Possible inc in heart defects; inc in preterm birth, NICU admissions	Limited data; RID 1-4%; no adverse effects noted in infants
Hydroxyzine ^a (Vistaril)	25	Increase to 50-100 mg up to QID as needed	Drowsiness, dry mouth	Possible inc in heart defects	Reports of infant sedation, irritability
Pregabalin ^a (Lyrica)	25 BID	Increase as needed to 150-600 mg daily in divided doses	Dizziness, drowsiness	Inconsistent reports; possible increase in malformations	Limited data; RID 7-8%; no adverse effects in one infant; manufacturer recommends against breastfeeding
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	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	Low levels in milk; RID<1%; one infant with sedation

^aCan be scheduled or prescribed PRN (as needed); buspirone is not effective as a PRN medication

^bDose for panic disorder can be 5-6 mg daily (max 10 mg daily) in divided doses

^cIncrease in malformations reported with benzodiazepine + SSRI exposure, but not with benzodiazepines alone

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.

Clinkscales N, Gold L, Berlouis K, MacBeth A. The effectiveness of psychological interventions for anxiety in the perinatal period: a systematic review and meta-analysis. Psychol Psychother Theory Res Pract 2023; 96:296-327.

GAD-7 in other languages:

The GAD-7 anxiety screening questionnaire is available in multiple languages at:

<https://www.phqscreeners.com>

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/>

Assessing Safety

Cummings Rork, MD



Assessment of Safety Risk in Perinatal Populations

Key Facts:

- Suicide is the leading cause of direct death within first year of postpartum period (8% in WA)
- Suicide is more likely to occur in the postpartum period (and more likely after 6-week postpartum visit)
- Postpartum women with a history of depression are at a 70% increased risk for death by suicide
- Women with postpartum psychiatric admissions faced a 70x increase in suicide risk during their first year postpartum
- Women diagnosed with a postpartum mental disorder are 6.2x higher risk for self-harm compared to mothers without mental disorders
- Pregnant women with alcohol abuse are 3.7x more likely to feel suicidal compared to those without alcohol abuse
- In pregnancy-associated suicides, 54.3% of victims experienced problems with a current or former intimate partner that appeared to have contributed to the suicide
- For patients with untreated postpartum psychosis, 5% die by suicide

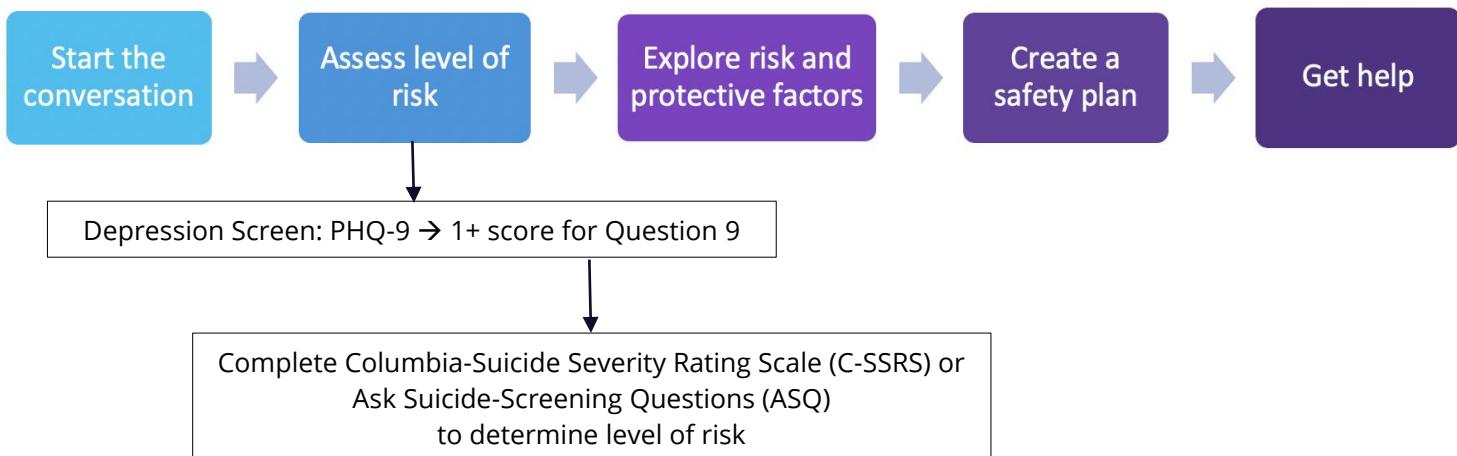
Warning Signs:

- Sadness
- Withdrawn
- Change in sleep or eating habits
(esp. severe insomnia)
- Loss of pleasure of activities that normally bring joy
- Giving away possessions
- Helplessness
- Feelings of worthlessness
- Anger, seeking revenge
- Significant estrangement from infant
- Feeling trapped
- Overwhelming anxiety, panic, or agitation
- Alcohol or drug use increase
- Change in personality, emotional lability
- Strong feelings of guilt or shame
- Recklessness or impulsivity
- Purposelessness (feeling like a burden, family would be better without them)
- Psychosis

CRITICAL SIGNS

- Hopelessness
- Talking about death
- Seeking methods for self-harm (searching online, obtaining a gun*)

*Women who die by suicide during the postpartum period use violent and lethal means more frequently than non-perinatal women



Assessment of Safety Risk in Perinatal Populations (Cont.)

Protective Factors	Risk Factors
<ul style="list-style-type: none"> Positive & available social support Cohabitation with partner Positive therapeutic relationship Responsibility to others (family, children) Fear of death Positive problem-solving or coping skills Hope for future, future-oriented Intact reality testing Fear of social disapproval Religious beliefs against suicide Life satisfaction 	<p><u>Predisposing Historical factors:</u></p> <ul style="list-style-type: none"> Personal hx of suicidal ideation/behavior* Personal or family hx of mental disorder (esp. bipolar disorder) Hx of substance use disorder & cannabis use Lifetime hx of rape, or hx of childhood abuse Medical illness (e.g. HIV+ status, chronic pain) Death of family member by suicide Younger age Nulliparity Traditionally marginalized and underserved populations (e.g., LGBTQAI+, Black, Native American/Alaskan Native) Veteran Physician <p><u>Situational factors:</u></p> <ul style="list-style-type: none"> Recent IPV Lack of social support Unintended/unwanted pregnancy Obstetrical/neonatal complication Loss (e.g., pregnancy loss) Recent discharge from inpatient psychiatric unit Family or marital conflict Social withdrawal/isolation Unmarried Unemployment/financial instability Medical problems Legal issues Housing factors (crowded, inadequate, rural) Community factors (i.e., war, discrimination) Health systems factors (i.e., barriers to access, stigma) <p><u>Other factors:</u> Depressive symptoms (SIGECAPS) especially sleep disturbances, feeling estranged/distant from child, psychosis, or suicide</p>

*34% of pregnancy-related suicides had a documented prior suicide attempt

Health Consequences of Nonfatal Suicide Attempt

Obstetric Health	Impact on Children
<p>Increased risk of:</p> <ul style="list-style-type: none"> Antepartum hemorrhage Placental abruption Postpartum hemorrhage Premature delivery 	<ul style="list-style-type: none"> Low birth weight Stillbirth Poor fetal growth Fetal abnormalities

Safety Planning

- Foster a sense of connectedness (e.g., hope, connect with family)
- Initiate or refer to specialty care
- Assess for firearms, medications, and other lethal means. Work to secure any lethal means.
- Collaborate in creating safety plan.
- Consider the Stanley-Brown, a validated brief intervention used to collaboratively mitigate acute suicide risk with suicidal individuals. Discuss Reasons for Living

Assessment of Safety Risk in Perinatal Populations (Cont.)

Possible Interventions

Low Risk	Moderate Risk	High Risk
Modifiable risk factors, strong protective factors	Multiple risk factors, few protective factors	Psychiatric diagnoses with severe symptoms or acute precipitating event; protective factors not relevant
Thoughts of death, no plan, intent, or behavior	Suicidal ideation with plan, but no intent or behavior; previous suicide attempts	Potentially lethal suicide attempt or persistent ideation with strong intent or suicide rehearsals
Establish/maintain therapeutic alliance		
Regular follow-up with repeated risk assessment	Closer follow-up with repeated risk assessment	Close follow-up once emergent management by psychiatry established
Referral to psychiatry	Urgent referral to psychiatry; psychiatric admission may be necessary	Emergency psychiatry consultation in ER; psychiatric hospitalization generally indicated (mother-baby unit)
Initiate treatment (consider pharmacotherapy)	Initiate treatment, including pharmacotherapy	
Give emergency/crisis numbers		
Optimize social support		
Psychoeducation		
Documentation tips	Risk level and rationale; treatment plan to address/reduce current risk (e.g., medication, setting, psychotherapy, contact with significant others, consultation); firearms instructions, if relevant; follow-up plan.	

Resources for Assessing Safety

For Providers:

Safety Plan Template:

<https://bgg.11b.myftpupload.com/wp-content/uploads/2021/08/Stanley-Brown-Safety-Plan-8-6-21.pdf>

Stanley-Brown Safety Plan Training Videos:

<https://suicidesafetyplan.com/training/>

ASQ Suicide Risk Screening Tool:

<https://www.nimh.nih.gov/research/research-conducted-at-nimh/asq-toolkit-materials/>

Webinars:

[Latest in Maternal Suicide Trends](#) (Friday, September 22, 2023)

Patient Resources:

Perinatal Support Washington Warm Line:

- 1-888-404-7763
- <https://perinatalsupport.org>

Washington State Crisis Line Access:

- 9-8-8 (7-1-1 for TTY)

King County Crisis Line:

- 866-427-4747 (866-4-CRISIS)

988 Suicide and Crisis Lifeline:

- 9-8-8 (7-1-1 for TTY)
- Crisis support via text message: *Text 988*
- Crisis support via chat: <https://chat.988lifeline.org/>

Washington Warm Line:

- 1-877-500-9276

Washington Recovery Help Line:

- 1-866-789-1511

Resources for Assessing Safety (Cont.)

Survivors of Suicide Support Groups:

For families/patients:

American Foundation for Suicide Prevention Directory:

<https://afsp.org/find-a-support-group/>

WA DOH Suicide Grief Support Resources:

<https://doh.wa.gov/you-and-your-family/injury-and-violence-prevention/suicide-prevention/suicide-prevention>

Crisis Line Support Group Directory:

<https://suicidepreventionlifeline.org/help-yourself/loss-survivors/>

Policy Center for Maternal Mental Health Remembrance Wall:

<https://policycentermmh.org/rememberance-wall/>

For clinicians:

Coalition of Clinician Survivors

www.cliniciansurvivor.org

Intimate Partner Violence (IPV) Risk Assessment

Definition: The term “intimate partner violence” describes a single or repeated act of physical violence, sexual violence, stalking, psychological harm, or control of reproductive health perpetrated by a current or former partner or spouse. “Intimate partner” refers to an individual with whom one has a close personal relationship (i.e., spouse, former partner, family member).

Be Vigilant:

- Violence against women has increased to unprecedented levels since the pandemic
- Prevalence of perinatal IPV estimates ~3-8%
- Pregnancy is the 2nd most dangerous time in a violent relationship, and is a risk factor for dying by homicide
- Homicide is a leading cause of death in pregnancy and in postpartum (9% of total pregnancy-associated deaths in WA)
- Homicide pregnancy-associated death ratio increased 63% in the past decade (1.8 → 3.0 per 100,000 births); rates are highest during pregnancy (56.8%) or after 6-weeks postpartum (34.9%)
- Non-Hispanic Black and American Indian/Alaska Native rural residents had significantly higher rates of experiencing IPV during the perinatal period compared to non-Hispanic White residents.
- Folks of BIPOC and LGBTQAI communities suffer from IPV more; people who identify as non-Hispanic Black or younger age (15-24) are at highest risk of intimate partner homicide
- IPV (esp., physical abuse) is associated with suicidal ideation and deaths (higher frequency = increased risk)
- Intersecting identities can exacerbate the experience and impact of IPV, as individuals may face multiple forms of oppression and marginalization that can increase their vulnerability to violence and limit their access to resources and support.
- Technology-facilitated abuse is a significant, harmful phenomenon and emerging trend

Risk Factors for IPV:

- Prior IPV (which raises the risk of violence during pregnancy as much as 14 times)
- Young age, particularly adolescents
- Individuals who are single, unmarried, or who are living apart
- Fewer years of education (particularly if less than a high school education)
- Co-existing medical or obstetric complication
- Being publicly insured or on Medicaid
- Unplanned/Mistimed pregnancy or ambivalence about the pregnancy
- Being from certain racial/ethnic minority groups like non-Hispanic Black, American Indian/Alaska Native
- Having refugee status

High-Risk Indicators for Severe IPV and Lethality

- Access to gun and/or prior use of weapon
- Suicidal and/or homicidal threats (partner, children, pets)
- Partner with SUD
- Strangulation
- Hostage-taking
- Escalation of IPV
- Forced sexual activity
- Possessiveness/jealousy
- Stalking behavior

Intimate Partner Violence Risk Assessment (Cont.)

Warning Signs/Indicators of IPV:

- Poor attendance/nonattendance to clinic visits
- Repeat visits for minor injuries or concerns
- Nonadherence to care plan
- Repeat presentation with depression, anxiety, self-harm, or other psychosomatic symptoms
- Physical injuries that are unintended and located in several locations of varying degrees of age, especially to neck, head, breasts, abdomen, and genitals, , especially patient minimizing these injuries
- Past poor obstetric outcomes (repeated miscarriage, stillbirths, preterm labor/birth, IUGR or low birth weight)
- Partner demanding to be included in visit or domineering during visit
- Sexually transmitted infections or frequent UTIs, vaginal infections, or pelvic pain
- Poor nutritional status, inadequate weight gain
- Increased rates of alcohol, substance use and smoking in pregnancy

Consequences of IPV

Mental Health:

- PTSD, fear
- Anxiety, stress
- Depression, suicide
- Eating Disorders
- Substance Use Disorders
- Isolation

Neonatal Health:

- Diminished intrauterine growth, small for gestational age, low birth weight
- Preterm birth
- Stillbirth
- Fetal injury or death

Obstetric Health:

- Insufficient or inconsistent prenatal care
- High blood pressure, edema
- Vaginal bleeding in 2nd or 3rd trimester
- Severe nausea, vomiting, or dehydration
- Kidney infection or UTI
- Premature rupture of membranes, premature birth
- Placental abruption
- Miscarriages
- Homicide

Impact on Children:

- Less likely to be breastfed
- Sleep disturbances
- Higher irritability, behavioral problems
- Increased risk for mental illness (mood and anxiety disorders, PTSD, substance use)
- Deficits in executive functioning
- Deficits in cognitive functioning
- Delays in achieving developmental milestones
- Insecure or disorganized attachment
- Increased risk for physical abuse and neglect
- Failure-to-thrive
- Death
- Increased risk for both using and experiencing IPV as an adult

Psychosocial Impact:

- Housing instability & homelessness
- Unemployment
- Loss or delay in educational opportunities
- Food insecurity
- Financial instability
- Unwanted entanglement in legal systems

Intimate Partner Violence Risk Assessment (Cont.)

PEARLSS for Trauma-informed Care:

- **P - Partnership:** Collaborate and empower the survivor, respecting their autonomy.
- **E - Empathy:** Validate experiences without judgment, demonstrating understanding.
- **A - Autonomy:** Support informed choices and decisions, respecting survivor's control.
- **R - Respect:** Honor dignity, choices, and boundaries, promoting nonviolence.
- **L - Listen and Learn:** Create a safe space for sharing, continuously learn about trauma.
- **S - Strengths-Based Approach:** Focus on strengths, resilience, and coping mechanisms.
- **S - Safety:** Prioritize physical and emotional safety, fostering trust and empowerment.

Considerations with Screening

If your patient says "YES," ask:

1. Are you safe now?
2. Would you like to talk about it?
3. When did this happen?
4. Have you talked with anyone else about this?
5. How are you coping?
6. What do you need right now?

- IPV screening is recommended for all women of childbearing age
 - Screen at least once per trimester and at postpartum visits
 - Other times: intakes, annually, new intimate relationship, when IPV is suspected
 - Think about including information in discrete areas in the clinic (i.e., restrooms/stall doors)
- Assess immediate safety and other health concerns/needs
- Offer choices (referrals, list of local resources e.g., crisis lines, shelter)
- Respect and recognize the patient's autonomy in decision-making
- Do not screen if another adult or child over 2 years old is present
- Review the limits of confidentiality with the patient beforehand
- Be mindful of how you screen (self-report vs clinician-led questionnaire, before visit/in lobby, in office, survey that includes all types of violence, culturally adapted, gender-neutral, non-heteronormative)
- Ask behaviorally specific questions to yield more accurate responses (i.e., "Has your partner ever strangled you?" instead of "Has your partner ever abused you?")

Intimate Partner Violence Risk Assessment (Cont.)

Considerations with Documentation

- Be mindful of how to document your conversation and collaborate with the patient in your response
- Be aware of who may have access to the medical record; ensure documentation is kept confidential and secure
- Use recovery-oriented, non-stigmatizing terms (i.e., someone who uses/experiences violence, not victim/perpetrator); avoid language that blames the patient or minimizes the abuse

Sufficient, Detailed, and Accurate

- Include date(s) and description of event(s), use the patient's words verbatim with quotations, and document detailed information of objective physical signs and behaviors (consider anatomical diagrams, photos); avoid speculation or assumptions
- Collect and document information about the individual who used violence (name, address, relationship to patient, etc.)
- Note the patient's concerns about safety and any safety planning done (see more below)
- Other considerations: (in)consistency between subjective and objective findings, children in home, pregnancy status of patient, etc.
- Remember: documentation can be used to support the patient's safety, treatment, and recovery. It may also serve as evidence in legal proceedings if the patient chooses to pursue that path

Safety Planning

Safety is priority. Depending on what the individual wants to do, safety planning may include safety within the relationship, safety while leaving the relationship, and safety after leaving the relationship. Please visit our "[Resources for Providers](#)" page for some safety planning forms (and attached at end of this guide).

Intimate Partner Violence Risk Assessment (Cont.)

How to Stay Safe Within the Relationship	How to Safely Leave the Relationship	How to Stay Safe After Leaving the Relationship
<ul style="list-style-type: none">Identify safe areas of the homeGather important documents such as copies of birth certificates, passports, financial records, other ownership filesProvide assistance with contraceptive health and screening for sexual health issuesPractice how to safely exit if needed and have an "escape bag" packed with essentialsIdentify trusted friends, family, or domestic violence advocates to call in an emergency; keep the number for the National Domestic Violence Hotline (1-800-799-7233) or a local shelter handy	<ul style="list-style-type: none">Contact a local domestic violence shelter or the National Domestic Violence Hotline (1-800-799-7233) to get connected with resources and supportPartner with a trusted friend, family member, or advocate about the situation and safety concernsHave a provider document any injuries or incidents (who, what, when, where, how; photos can also be used and stored in the medical record)Identify a safe, anonymous place to stay and bring your "escape bag"	<ul style="list-style-type: none">File for a restraining order or order of protectionChange the route to work, school, or other regular destinations; vary the schedule by leaving at different times, avoid places familiar to person using violenceChange the locks, install additional security measures like cameras, lighting, etcAlert neighbors, family, co-workers, employers, or school personnel to call the police if they see the individualEnsure online safety by changing passwords, disabling location servicesEngage in self-care

Resources for Intimate Partner Violence

Screeners

Abuse Assessment Screen

<https://www.mdcalc.com/calc/10419/abuse-assessment-screen-aas>

Woman Abuse Screening Tool

<https://www.mdcalc.com/calc/10396/woman-abuse-screening-tool-wast>

Danger Assessment Screening

<https://www.dangerassessment.org/DA.aspx>

Additional Resources

Domestic Violence Personalized Safety Plan

- <https://www.thehotline.org/plan-for-safety/create-your-personal-safety-plan>

National Domestic Violence Hotline

- 1-800-799-SAFE (Voice) | Free. Confidential. 24/7.
- 1-800-787-3224 (TTY) | Free. Confidential. 24/7.

National Teen Dating Violence Hotline, online chat, and texting

- <https://www.loveisrespect.org>

National Sexual Assault Hotline

- 1-800-56-HOPE (4673) | Free. Confidential. 24/7.
- <https://rainn.org/get-help/national-sexual-assault-hotline/>

Database of Domestic Violence Programs and Shelters

- www.domesticshelters.org

Washington Department of Health Resources

- <https://doh.wa.gov/you-and-your-family/injury-and-violence-prevention/sexual-and-domestic-violence>

Database of Sexual Assault and Domestic Violence Services in Washington

- Locate sexual assault service providers in WA: <http://www.wcsap.org/find-help>
- Locate domestic violence service providers in WA: <http://wscadv.org/washington-domestic-violence-programs/>

Intimate Partner Violence Resources (Cont.)

Resources for Clinicians

Vicarious trauma is real, and self-care and support are important:

- Seek professional support: Supervision, consultation, peer support, psychotherapy.
- Education and training: Attend workshops on self-care and trauma-informed care.
- Practice self-care: Mindfulness, meditation, relaxation practices, healthy nutrition, avoiding substances, exercise, nature-based activities, boundary setting, and hobbies.
- Access supportive resources: Read books/articles and use online mental health resources.
- Monitor well-being: Use self-assessment tools like ProQOL questionnaire.

Assessment of Risk for Harm of Infants and Children

Key Facts:

- The highest rate of child abuse is in children under age one
- Forms of child maltreatment preceding infant death are neglect (72%) & physical abuse (44%)
- Infants are at risk for homicide more than any other age group; the highest risk for infant homicide is during first 24hrs of life
- Homicide is the second leading cause of injury-related death for children <1 year and usually involves at least one parent; firearms are the cause in over 75% of cases
- In WA state, 25% of children entering foster care are infants under 1 year, the second highest rate in the country
- For patients with untreated postpartum psychosis, 4% will carry out infanticide
- Aggressive or infanticidal ideation in women with depression or facing stress is common (26-43% incidence)
- 16-29% of filicides occur in the context of maternal suicide
- nearly 73% of child homicide victims in the U.S. were Black children, despite making up only 17% of the child population
- The economic burden of child maltreatment rivals the cost of other high-profile public health problems, such as heart disease and diabetes
- Early childhood experiences have lasting impacts on well-being, and timely interventions aid in healing for maltreated babies and families.

Maternal Characteristics:

- Denial of pregnancy
- Late initiation of pregnancy care
- Depression
- Psychosis (delusions of threat to safety, auditory/command hallucinations)
- Suicidality
- Significant life stress
- Low SES
- Young age (under 20 years)
- Unmarried
- Rural residence
- Lower educational achievement
- Socially isolated
- IPV
- Family history of violence
- History or current child abuse/neglect
- Full-time caregiver/unemployment
- Persistent crying or other child factors (e.g., colic, autism)
- Child custody dispute
- Thoughts of revenge against spouse

Infant Characteristics:

- 1-day old
- Born at residence
- Low gestational age
- Low birthweight
- Low apgar score
- Male sex

Other Risk Factors:

- Access to firearms
- Exposure to domestic violence
- Exposure to substance use

Definitions:

Neonaticide: the killing of an infant during first 24hrs of life

Infanticide: the killing of an infant (age 1 day old to 1 year old)

Filicide: the killing of a child (age ≥ 1)

Assessment of Risk for Harm of Infants and Children (Cont.)

Know the Signs:

- Physical signs of neglect (poor hygiene, dental caries, poor weight gain or weight loss, severe diaper dermatitis, and unattended medical needs)
- Unexplained injuries (bruises, burns, fractures, or head injuries)
- Extreme behaviors (excessive crying, truancy, running away, or aggression)
- Delay in seeking care, missing or inconsistent medical history, or inconsistent explanations for injuries
- Signs of emotional abuse (low self-esteem, depression, anxiety, or withdrawal)
- Signs of sexual abuse (difficulty walking or sitting, pain or itching in the genital area, or inappropriate sexual behavior or knowledge)
- Signs of neglect (lack of supervision, regular signs of hunger, inappropriate dress, poor hygiene, distended stomach, or emaciation)

Common Motives:

- Altruistic: death of child out of love or belief this is in the best interest of the child; often planned or considered for some time
- Acutely psychotic: no comprehensive motive (e.g., command auditory hallucinations); tends to be impulsive
- Fatal maltreatment: death is not anticipated outcome, a result of abuse, neglect, or fabricated/induced illness or injury by caregivers (i.e., Munchausen by proxy syndrome)
- Unwanted child: mother perceives child as burden
- Spouse revenge: child is killed to specifically cause emotional harm to spouse; rare
- Cultural: death of the child due to cultural beliefs or practices; rare

Sample Questions:

- Are there any safety concerns you have for your child(ren) at home or elsewhere?
- Have you experienced any troubling thoughts about harming others?
- Have you had any distressing thoughts or fears about harming your child(ren)?
- Have you had any thoughts about wanting others to die with you?
- Do you worry that others, including your children, would struggle to cope without you? Have you thought about what might happen to your child(ren) if you were no longer around?

Important Consideration:

Fear of child removal from the home is real and common among parents. This fear may lead to reluctance in disclosing or minimizing symptoms and risky behaviors (e.g., substance use). If, after a thorough risk assessment, a referral for protective services is deemed necessary, it is essential to exercise extra vigilance and care. Such actions can disrupt the therapeutic alliance, potentially leading to avoidance of care or treatment, and may increase the risk of maternal mental health disorders or suicide.

Resources for Assessment of Risk for Harm of Infants and Children

General Resources:

Child Protective Services

<https://www.dcyf.wa.gov/safety/report-abuse>

Zero to Three Safe Babies Program

<https://www.zerotothree.org/our-work/safebabies/>

Child Help Hotline: 1-800-4-A-CHILD (1-800-422-4453)

<https://www.childhelp.org/educator-resources/child-abuse-education-prevention-resources/>

The Period of Purple Crying

<https://dontshake.org/purple-crying>

Help Me Grow WA

1-800-322-2588

<http://www.parenthelp123.org/resources/family-health-hotline/>

WA Warm Line

1-877-500-9276

WA Recovery Help Line

1-866-789-1511

Teen Link (ages 13-20)

1-866-833-6546

WA State Crisis Line Access

7-1-1

Provides Text Telephone (TTY), Voice Carry Over (VCO), Hearing Carry Over (HCO), Speech-to-Speech (STS), Spanish and Remote Conference Captioning (RCC) services

King County Crisis Line

866-4-CRISIS (866-427-4747)

988 Suicide and Crisis Lifeline

Call: 9-8-8

Crisis support via text message: Text 988

Crisis support via Chat: <https://chat.988lifeline.org/>

Perinatal Support Washington

1-888-404-7763

<https://perinitalsupport.org>

National and State-Specific Resources

Healthy Mothers, Healthy Babies Consortium
<https://hmhbconsortium.org>

American Academy of Pediatrics (AAP) WA Chapter
<https://wcaap.org>

Educational Materials and Programs

Bright Futures
<https://brightfutures.aap.org>

For Providers:

Articles:

Prevention of Infanticide and Suicide in the Postpartum Period—the Importance of Emergency Care
<https://jamanetwork.com/journals/jamapsychiatry/article-abstract/2738767>

Child Murder by Mothers
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2174580/>

Books:

Infanticide Psychosocial and Legal Perspectives on Mothers Who Kill
<https://www.appi.org/Products/Trauma-Violence-and-PTSD/Infanticide>

References:

Salihu, H., Gonzales, D. and Dongarwar, D., 2021. Infanticide, neonaticide, and post-neonaticide: racial/ethnic disparities in the United States. European Journal of Pediatrics, 180(8), pp.2591-2598.

Wilson, R., Klevens, J., Williams, D. and Xu, L., 2020. Infant Homicides Within the Context of Safe Haven Laws — United States, 2008–2017. Morbidity and Mortality Weekly Report (MMWR). [online] CDC. Available at: <<https://www.cdc.gov/mmwr/volumes/69/wr/mm6939a1.htm>> [Accessed 19 May 2022].

Perinatal Bipolar Disorder

Amritha Bhat, MD



Perinatal Bipolar Disorder

Key facts: 60–70% of women with bipolar disorder (BD) experience a mood episode during pregnancy/ postpartum. Screen for BD in all individuals 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. If needing to start treatment while awaiting evaluation, quetiapine (effective in both unipolar and bipolar depression) can be started.

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 Postpartum hemorrhage, placental abnormalities

On baby: preterm birth, low birth weight, microcephaly, neonatal hypoglycemia

Relapse of BD during pregnancy increases risk of postpartum episodes 3 to 7 fold

Risk assessment:

Also see [Assessing Safety](#) (Page 28)

Suicide risk: C-SSRS or NIMH ASQ

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.

Example question:

"Many postpartum women – up to 70% - have intrusive thoughts about something bad happening to their baby. These thoughts can feel terrible. Have you had any unwanted thoughts? Have you had any thoughts of harming your infant, accidentally or on purpose?" If yes, follow up questions on frequency, and how scary they are.

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: olanzapine, quetiapine, benzodiazepine, lithium

Maintenance: Lamotrigine, lithium, second generation antipsychotic

Non-pharmacological interventions:

Counsel on lifestyle issues and sleep, help plan how to implement positive changes

Cognitive Behavior Therapy (CBT)

CBT – Insomnia

Interpersonal and Social Rhythm Therapy

Light therapy (mid day, 7000 lux, start with 15 min, increase in 15 min increments weekly, total 6 wks)

A note on postpartum psychosis:

Also see [Postpartum Psychosis](#) (Page 85)

Higher risk in those with past episodes and bipolar disorder

A psychiatric emergency requiring hospitalization.

Rapid onset, highest risk in first 4 weeks postpartum, may occur up to 12 weeks postpartum

Symptoms: mood swings, confusion, strange beliefs and hallucinations

Perinatal Bipolar Disorder Medications (See Page 88 for [Information on Antipsychotics](#))

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 by 25% immediately post-birth and gradually back to baseline within two weeks postpartum.	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 2-3 divided doses; increase based on response/tolerability by 300 to 600 mg every 1 - 5 days to therapeutic dose range of 900 mg/day to 1.8 g/day. ²	Hypothyroidism, polyuria, weight gain, serotonin syndrome	Ebstein's anomaly ³ – 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, pre pregnancy dose after delivery.	RID 3 – 69. Not considered compatible, however based on patient preference, may support this in consultation with pediatrics.
Valproate (Depakote)	Not 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 in lactation, but not considered safe in people of reproductive potential. Monitor infant for sedation
Carbamazepine (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 ⁴ , 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

1. Mother must be clinically stable to breastfeed, prioritize sleep over breastfeeding, breastfeeding must not be at the cost of maternal mental health.

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

3. 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.

4. 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.

5/15/2025

Perinatal Bipolar Disorder Resources and References

Resources

Review articles:

Review of psychotropic drug use for bipolar disorder in the perinatal period:

<https://www.sciencedirect.com/science/article/pii/S0146000520300112>

Course of Illness and Treatment Updates for Bipolar Disorder in the Perinatal Period

<https://link.springer.com/article/10.1007/s11920-022-01323-6>

Webinar:

Webinar on social rhythm therapy for bipolar disorder:

<https://ibpf.org/articles/social-rhythm-therapy-for-bipolar-disorder/>

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/>

References

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 Cannabis Use

Jessie Goodman, MD



Perinatal Cannabis Use

What is cannabis?

- Cannabis is the most commonly used drug during pregnancy. Rates vary widely from 2-8 % of pregnant patients, but higher in those age 18-25 yo (up to 15%). Prevalence of use in pregnancy is increasing, and potency of cannabis is increasing.
- Cannabis is a plant that contains more than 80 biologically active chemical compounds. The most commonly known compounds are delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD).

Perinatal cannabis use

- 30-60% of regular users continue during pregnancy
- Many pregnant patients have strong beliefs about using cannabis and associate its use as inherently safe.
- If providers do not raise the subject of use, many patients assume that it means there is no or low risk.
- Patients may hear conflicting advice regarding safety and use; keep the conversation open and engage in reflective listening
- ACOG, AAP, FDA, CDC, ABM all advise to avoid cannabis use in pregnancy and lactation

Risks of cannabis use in pregnancy: *

Perinatal Complication Risks	Developmental Outcome Risks
<ul style="list-style-type: none">• Fetal growth restriction• Low birth weight• Small for gestational age• Risk for stillbirth• Higher NICU admission rate• Neonatal withdrawal symptoms	<ul style="list-style-type: none">• Disruption in brain development• Reduction in verbal & visual reasoning• Memory and attention deficits• Executive function deficits• Increased risk for psychopathology

*Studies are not always well controlled and have limitations. Risks may be dose dependent.

Perinatal Cannabis Use (Cont.)

Screen all patients for substance use during pregnancy with NIDA quick screen or 4Ps. Recurrent screening should occur with ongoing or new concerns for substance use during pregnancy. Some pregnant people may choose to avoid substances during pregnancy but resume use after delivery, therefore screening must be repeated during the postpartum period.

(See Substance use in pregnancy guide for further information)

NIDA Quick Screen: <https://nida.nih.gov/sites/default/files/pdf/nmassist.pdf>

Ensure all patients are asked: Have you ever used cannabis?

If a patient endorses cannabis use:

Ask open ended questions using non-judgmental language. Use a harm reduction, trauma-informed, and culturally informed approach that is person-centered

- How often are you using and how much at a time?
- How do you use (edibles, smoking, vaping, dabbing, topical)?
- Are you using for recreation or to treat a condition such as:
 - nausea, pain, to improve appetite, anxiety, depression, managing withdrawal from other substances (Acknowledge these are medical conditions that require treatment and support, and explore treating the underlying condition with a more evidence-based alternative)
- Does your partner or other household members use?
- Are you interested in decreasing/stopping use or have you tried in the past? If Yes, see substance use disorders guide in pregnancy for resources and motivational interviewing techniques
- What have you already discussed with other providers?

Assess for possible cannabis use disorder (see below)

Cannabis use disorder (CUD)

Up to **18%** of pregnant patients using cannabis meet criteria for CUD

Screen using the CUDIT-R

<http://www.warecoveryhelpline.org/wp-content/uploads/2018/04/CUDIT.pdf>

For referral to treatment, see Resource Guide: <https://perc.psychiatry.uw.edu/provider-patient-resources/resources-for-providers/perinatal-substance-use-resources/>

Screen and treat for co-morbid disorders (including mood disorders, insomnia, nausea)

Medication treatment: no currently approved medications. Some limited evidence for gabapentin and N-acetylcysteine (NAC)

NAC: no evidence regarding risk for use in pregnancy

Gabapentin: limited data, possible increased risk of cardiac malformations, risk for pre-term birth, SGA, and NICU admission (particularly in late pregnancy). Limited data on use during lactation

Perinatal Cannabis Use (Cont.)

Cannabis and lactation:

Regardless of method of use, the active ingredients of cannabis pass into breast/chest milk.

- Babies are estimated to ingest 0.4%-8.7% of parental dose via milk
- **Discarding pumped milk does not eliminate risk of THC in milk.** THC remains in fatty tissue from 6 days to greater than 6 weeks, even after discontinuing use.

There are limited quality long-term studies on the safety of cannabis exposure via human milk.

Potential risks:

- adverse effects on neurodevelopment, including delayed motor development
- possible delayed growth

CBD (non-psychoactive cannabis component)

Used for pain, anxiety, insomnia, depression, PTSD, headaches, nausea, seizures disorders and many more conditions (studies are ongoing regarding outcomes and side effects in non-pregnant adults)

Scarce research of pure CBD use during pregnancy and lactation. Research is not conclusive as to safety or harm.

Possible risks in pregnancy:

- Animal research finds disruption in reproductive system of male fetuses
- Human tissue studies find decreased angiogenesis in umbilical cells, that may lead to pregnancy complications (placental insufficiency/pre-eclampsia) and dysregulation in the fetal immune system

If long term use, and experiencing N/V, consider cannabinoid hyperemesis syndrome:

Cannabinoid Hyperemesis Syndrome (CHS)

- Rare disorder with repeated regular use for at least one year
- Symptoms can include repeated episodes of nausea and /or vomiting, belly pain, diarrhea
- Consider in pregnant patients with long term cannabis use with pre-pregnancy nausea symptoms
- Main treatment: to discontinue cannabis use. See cannabis use disorder above.

Perinatal Cannabis Use Resources

Resources:

SAMHSA Cannabis in Pregnancy Evidence Based Resource Guide:

<https://store.samhsa.gov/sites/default/files/d7/priv/pep19-pl-guide-2.pdf>

ACOG Cannabis Committee Opinion:

https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2017/10/marijuana-use-during-pregnancy-and-lactation?utm_source=redirect&utm_medium=web&utm_campaign=otn

Cannabis and Washington State Law:

<https://doh.wa.gov/sites/default/files/2023-11/MedCannabis-HistoryInWashington.pdf>

For patients:

Mother To Baby Cannabis Fact Sheet:

<https://mothertobaby.org/fact-sheets/marijuana-pregnancy/>

MGH Center for Women's Health: Cannabis Use and Brain Development

<https://womensmentalhealth.org/posts/essential-reads-emerging-evidence-of-the-long-term-effects-of-cannabis-on-the-developing-brain/>

MGH Center for Women's Health: Cannabis Use and Breastfeeding

<https://womensmentalhealth.org/posts/cannabis-and-breastfeeding/>

Perinatal Depression

Deborah Cowley, MD



Perinatal Depression

Common: 12-15% in pregnancy, 22% postpartum, in 5-10% of non-gestational parents, more common and lower rates of screening and treatment in BIPOC individuals

Screening:
PHQ-2 → PHQ-9/EPDS
Initial prenatal visit

At least once later in 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](#) (See [Page 28](#) for additional guidance)

[Columbia Suicide Severity Rating Scale \(CSSRS\)](#) or
[Ask Suicide Screening Questions \(ASQ\)](#)
[3-item Patient Safety Screener \(for acute settings\)](#)

Ask about 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
Optimize sleep
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



Risks of antidepressants:

See table on next two pages. Medication information sheets for patients are available at: <https://mothertobaby.org/fact-sheets/>

Alternative/additional treatments:

- *Psychotherapy (CBT, IPT, therapy that has helped in past)
- *Exercise, yoga, bright light
- *For severe/treatment-resistant depression, consider ECT, TMS, zuranolone/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	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)	May need dosage increase later in pregnancy	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)	Possible increased risk of persistent pulmonary hypertension of the newborn (PPHN); 2.9/1000 vs. 1.8/1000 baseline; lowest risk with sertraline	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 agitation, irritability, poor feeding, poor weight gain
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)	Transient neonatal adaptation syndrome (NAS) in 30% of exposed infants	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 heart defects, 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 under SSRIs); increased risk of gestational hypertension	RID ^e 3-13%; rare adverse effects reported in infants; monitor baby for excessive sedation, adequate weight gain
OTHER^b				
Bupropion ^f (Wellbutrin) XL	150	Increase to 300 mg/day XL after one week Then, increase as needed to 450 mg daily after 4 weeks ^c (max dose 450 mg/day)	No overall inc in malformations ?inc in LVOT ^g heart defects	RID ^e generally <10% 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

Drug Name	Starting Dose^a (mg/day)	Up titration schedule	Use in Pregnancy	Use during Lactation
Zuranolone ^{ijkl} (Zurzuvae)	50	50 mg each evening x 14 days Lower dose if sedating (40 mg daily)	Indicated for postpartum depression, not for use during pregnancy Concerns about fetal harm; should use contraception while taking and for one week afterwards	Limited data; low concentrations in breast milk (RID ^e < 1%) No reports regarding effects on infants

^aWith comorbid anxiety disorder, use lower starting dose

^bAntidepressants are associated with increased suicidal thinking and behavior in young adults; monitor closely for worsening or emerging suicidality

^cas needed to treat continued depressive symptoms

^dmaximum dose 40 mg/day due to risk of QT prolongation

^eRID = relative infant dose

^fdo not give if history of bulimia or seizures; seizure risk limits dose

^gLVOT = left ventricular outflow tract

^hincreases appetite, sedating; may help with hyperemesis, insomnia

ⁱPatients should not drive for 12 hours after each dose

^kAvoid use with other CNS depressants (e.g., alcohol, benzodiazepines, opioids, tricyclic antidepressants)

^lAvailable through select specialty pharmacies. Contact www.sagerx.com for information about how to obtain zuranolone for a patient

5/29/25

Perinatal Depression Resources

Review article:

Stewart AL, Payne JL. Perinatal depression: a review and an update. Psychiatr Clin North Am. 2023; 46(3):447-461. doi: 10.1016/j.psc.2023.04.003.

PHQ-9 in multiple languages:

<https://www.phqscreeners.com>

EPDS in multiple languages:

[Edinburgh Postnatal Depression Scale \(EPDS\) \(perinatalservicesbc.ca\)](https://perinatalservicesbc.ca)

Columbia Suicide Severity Rating Scale (CSSRS):

<https://cssrs.columbia.edu/documents/c-cssrs-screener-triage-primary-care/>

Ask Suicide Screening Questions (ASQ):

<https://sprc.org/online-library/ask-suicide-screening-questions-toolkit/>

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 Program

Information, training, and resources for therapy for perinatal stress and depression based on cognitive behavioral therapy and attachment theory. Website also has information for patients/parents, including how to find a therapist.

<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.

Article about importance of and prescribing sleep for postpartum depression:

Leistikow N, Baller EB, Bradshaw PJ, et al. Prescribing sleep: an overlooked treatment for postpartum depression. Biological Psychiatry 2022, doi.org/10.1016/j.biopsych.2022.03.006

Perinatal Eating Disorders

Megan Riddle, MD, PhD



Perinatal Eating Disorders

Prevalence:

The perinatal period carries increased risk for development of new eating disordered behaviors or recurrence of illness previously in remission. Rates in pregnancy: 0.6-11.5% Rates postpartum: Up to 12.8%

Risk factors:

- Personal or family history of eating disorders
- Psychiatric comorbidities
- Trauma history
- LGBTQ

Differential:

- Anorexia nervosa (AN)
Bulimia nervosa (BN)
Binge eating disorder (BED)
Avoidant Restrictive Food Intake Disorder (ARFID)
Other Specified Feeding & Eating Disorder—includes atypical anorexia
Appetite changes secondary to depression
Hyperemesis gravidarum

Screening: Personal history of eating disorder (ED) is biggest risk factor for ED symptoms in pregnancy. Early screening recommended. Include standardized ED screener at intake, such as Eating Disorder Screen for Primary Care:

1. Are you satisfied with your eating patterns?
 2. Do you ever eat in secret?
 3. Does your weight affect the way you feel about yourself?
 4. Have any members of your family suffered with an eating disorder?
 5. Do you currently suffer with or have you ever suffered in the past with an eating disorder?
- "No" to q1 = abnormal
"Yes" to q2-5 = abnormal
2 abnormal answers = positive screen. Further follow up recommended

Assess Symptoms: Frequency, duration, intensity
Restriction—Skipping meals/snacks? Portion sizes?
Are others concerned about intake? Limiting types of food? Eating the same thing every day?
Bingeing—Frequency, amount, eating in secret?
Purging—Vomiting, laxatives, diuretics, diet pills, exercise?

Interventions: Depend on severity of illness, medical stability, psychiatric comorbidities, ability to modify behavior independently. Multidisciplinary collaboration is important.

- Referrals to registered dietitian with ED expertise, therapy, psychiatry
If medical complications of ED or interference with functioning, consider referral to a higher level of care
- Blinded weights with a focus on baby's growth rather than weight gain
- Meal plan with frequent meals throughout the day—even for individuals whose primary ED behavior is identified as bingeing and/or purging, restriction is often a part of this cycle
- Treat psychiatric comorbidities—depression, anxiety, OCD

Medical complications:

- Thorough screen for medical complications
AN/Atypical AN/ARFID: Organ dysfunction related to malnourishment
BN: Complications of purging, electrolyte abnormalities

Pregnancy Complications:

- AN:** hyperemesis, antepartum hemorrhage, preterm birth, microcephaly, SGA
BN: hyperemesis, preterm birth, microcephaly
BED: tobacco use, maternal hypertension, need for c-section, higher gestational weight for age
All: ↑ risk of postpartum depression & anxiety

Birth control and infertility:

- Patients with EDs are at increased risk of unplanned pregnancy. Patients with amenorrhea/oligomenorrhea patients may still be ovulating.
- There are increased rates of EDs in individuals seeking infertility treatment. Consider screening.

Perinatal Eating Disorder Resources

Patient resources:

National Eating Disorder Association:

<https://www.nationaleatingdisorders.org/pregnancy-and-eating-disorders>

Further reading:

Ecob C, Smith DM, Tsivos Z, Hossain N, Peters S. A systematic review of the clinical practice guidelines for the assessment, management and treatment of eating disorders during the perinatal period. *BMC Pregnancy Childbirth.* 2025 Jan 28;25(1):82.

Galbally M, Himmerich H, Senaratne S, Fitzgerald P, Frost J, Woods N, Dickinson JE. Management of anorexia nervosa in pregnancy: a systematic and state-of-the-art review. *Lancet Psychiatry.* 2022 May;9(5):402-412.

Kimmel MC, Ferguson EH, Zerwas S, Bulik CM, Meltzer-Brody S. *Int J Eat Disord. Obstetric and gynecologic problems associated with eating disorders.* 2016 Mar;49(3):260-75.

Le Floch M, Crohin A, Duverger P, Picard A, Legendre G, Riquin E. Prevalence and phenotype of eating disorders in assisted reproduction: a systematic review. *Reprod Health.* 2022 Feb 7;19(1):38.

Mantel Ä, Hirschberg AL, Stephansson O. Association of Maternal Eating Disorders with Pregnancy and Neonatal Outcomes. *JAMA Psychiatry.* 2020 Mar 1;77(3):285-293.

Meltzer-Brody S, Zerwas S, Leserman J, Holle AV, Regis T, Bulik C. Eating disorders and trauma history in women with perinatal depression. *J Womens Health (Larchmt).* 2011 Jun;20(6):863-70.

Pettersson CB, Zandian M, Clinton D. Eating disorder symptoms pre- and postpartum. *Arch Womens Ment Health.* 2016 Aug;19(4):675-80.

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 mental health problems 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.
- In males, 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

www.pfrprogram.org

Research-based Bringing Baby Home workshops:

<https://www.gottman.com/parents/>

Mount Sinai Parenting Guides:

Information on infant behavior and development for parents

<https://parenting.mountsinai.org/parent-guides/>

Information for fathers from the American Academy of Pediatrics:

[A special message to new dads \(American Academy of Pediatrics\)](#)

Postpartum Men

Resources, information, and a community forum for men with postpartum depression.

<https://postpartummen.com/>

Perinatal Support Washington's Warm Line: 1-888-404-7763

A warm line with dads available to talk to dads about their and their partners' mental health

<https://perinitalsupport.org/warm-line/>

Postpartum Support International's First Tuesdays Chats for Dads

Free, live phone sessions for dads on the first Tuesday of each month.

<https://postpartum.net/get-help/chat-with-an-expert/>

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 (Premenstrual Exacerbation, PME), 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 20 μ g+drospirenone 3 mg) Calcium 1000 – 2000 mg / day

Chasteberry extract

Danazol 200–400 mg/d

Severe, non-responsive: Leuprorelin 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

SSRIs - no effects

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.

Hormonal treatment for Postpartum Depression (PPD): Brexanolone

Brexanolone: Intravenous formulation of allopregnanolone. FDA approved for PPD. 60-hour IV infusion in certified facility. **Zuranolone:** FDA approved oral medication for PPD. 50 mg daily for 14 days. Improvement in depression within 3 days, benefit lasting through 45 days follow up in clinical trials. Side effects sedation. Safety in breastfeeding not established. Not safe in pregnancy.

Resources

Review article:

[Premenstrual Exacerbations of Mood Disorders: Findings and Knowledge Gaps - PMC](#)

Patient information:

PMDD

[https://womenshealth.gov/menstrual-cycle/premenstrual-syndrome/premenstrual-dysphoric-disorder-pmdd](#)

PMS

[https://www.acog.org/womens-health/faqs/premenstrual-syndrome](#)

Infertility

Elizabeth Richards, MD



Infertility

Overview

Infertility

- Inability to conceive after 12 months of unprotected sex under age 35 (6 months if over age 35)
- Encompasses physical, hormonal, or reproductive circumstances.
 - o Mayer-Rokitansky-Küster-Hauser (MRKH) Syndrome: underdeveloped or absent uterus makes natural conception and childbirth impossible.
 - o Social infertility: obstacles due to societal or lifestyle factors rather than medical reasons
 - Elevating this to a treatable medical condition helps justify the use of assisted reproductive technology for these individuals.

Incidence/Prevalence: between 6% and 18% in the US (increases with age)

Mental Health Challenges Associated with Infertility

- Infertility has a profound impact on women's mental health, leading to higher distress levels compared to their male partners.
- People often experience anxiety, guilt, anger, hopelessness, disappointment, sexual dysfunction, social isolation, diminished self-esteem, and depression.
- Rates of depression are significantly higher (15%-54%) in infertile couples seeking treatment compared to fertile controls, while anxiety rates (8%-28%) surpass those in the general population.
- More invasive medical treatments are correlated with increased anxiety and depression. Fertility medications can impact mood.
- Infertility can strain relationships, causing conflict, communication difficulties, and sexual dysfunction. Physicians must acknowledge the impact on both individuals and couples.

Stress is prevalent among individuals facing infertility, especially during treatment.

- Hormonal fluctuation, cycles of hope and disappointment, feeling loss of control.
- Psychological burden and stress prevent 1 in 10 patients from starting infertility treatment.
- Monitor for high levels of stress during oocyte retrieval, embryo transfer, and the waiting period before the pregnancy test.

Infertility (Cont.)

Grief in infertility is complex, involving various types of losses.

- **Pregnancy-related losses:** biochemical pregnancy, miscarriage/stillbirth, ectopic pregnancy, fetal anomaly.
- Assisted Reproductive Technology alters the experience of pregnancy loss.
 - o Early ultrasound with heartbeat at 6 weeks.
 - o Visual embryo identification fosters attachment.
- **Infertility-specific losses:** failed IUI/IVF, loss of frozen eggs/embryos, absence of normal embryos for transfer, reliance on donor gametes.
- Disenfranchised grief due to shame, stigma, lack of acknowledgment or support, absence of grieving rituals.
- Managing grief can be particularly challenging during holidays, family gatherings, or social events focused on children and family.

*Providers should be aware of psychological symptoms that may arise **during pregnancy after infertility.***

- Heightened anxiety and vigilance
- Persistent fear of potential loss
- Reluctance to share pregnancy news
- Ambivalence and guilt
- Feelings of isolation, not fitting into the infertile or fertile world
- Fear of expressing negative thoughts or experiences
- Denial, avoiding emotional investment in the pregnancy
- Increased risk of depression

Role of Mental Illness in Causation of Infertility

- Causal role of psychological factors and infertility remains debated.
- Depression's potential direct impact on infertility: elevated prolactin, HPA axis disruption, thyroid dysfunction, regulation of luteinizing hormone.
- Stress and depression-related changes in immune function may impact reproduction.
- More research needed to separate depression's direct effects from associated behaviors like low libido, smoking, and alcohol use.
- Cumulative stress of recurrent depression and anxiety may play a causative role, given the similar physiological changes seen with stress.

It's crucial to recognize that individuals with mental health issues conceive, emphasizing the importance of balancing mental health treatment during infertility treatment. This helps reduce self-blame and guilt, dispelling the misconception that infertility solely results from stress.

Infertility Treatment

Non-pharmacological strategies

- Individual and couples in counseling during fertility treatments reported significantly lower depression, anxiety, and distress
- Cognitive-behavioral therapy (CBT) stands out as one of the most effective
- Support groups
- Only 10-34% of patients utilize these resources, highlighting an area for improvement.

Consider referring patients to mental health professionals specialized in infertility distress.

Pharmacological strategies

- Little data regarding pharmacologic treatment of patients with infertility.
- Medications can be an important option for moderate to severe depression in the context of infertility and its treatment.
- No evidence to suggest that commonly used antidepressants have negative effects on fertility.
- Significant amount of data to support the safety and efficacy of using antidepressants during pregnancy (see other care guides for details)

Infertility Resources for Patients

Resolve, The National Infertility Association: City-specific support groups

Hope and Support: Seattle-based Facebook support group

Club Hope: Washington and Oregon support group with newsletter service

ORM Fertility: Bellevue and Portland fertility clinics offering multiple support groups

Livestrong Fertility: Infertility after cancer

The American Society for Reproductive Medicine (ASRM)

FertilityIQ: Patient reviews on fertility clinics, doctors, and treatments

The Bumpin Project: Infertility & assisted reproduction challenges

Creating a Family: Podcasts, articles, and an online community for infertility support

Fertility Within Reach: Insurance, legal, and financial aspects of infertility treatment

Infertility Out Loud (Podcast)

The Blossom Method: Emotional and psychological well-being during the fertility journey

Mental Health America: Non-profit organization, mental health support, including infertility-related issues

The Infertility Support Group: Facebook Group

Apps: Calm, Headspace, Mindful IVF, Insight Timer, Happify, Mindfulness Daily

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 50%; rates of new-onset OCD in pregnancy range from 2 to 22%.

Consider screening for OCD in patients presenting with anxiety and depression (high rates of comorbidity with anxiety disorders and MDD).

Screening for OCD symptoms and intrusive thoughts of harming the baby

- Examples of screening questions:

"Are you having any thoughts that keep bothering you that you'd like to get rid of but cannot?"

"Do you do things over and over again because you feel anxious if you don't (for example, checking on your baby, washing your hands)?"

"Sometimes parents have scary thoughts or images of harm coming to their baby, accidentally or deliberately. Have you had any thoughts like that?"
- positive OCD screen should be followed by a diagnostic evaluation
- OCD screening: [Obsessive Compulsive Inventory-Revised \(OCI-R\)](#); 18-item self-report scale
- Perinatal Obsessive-Compulsive Scale (POCS); self-report scale, not freely available
- Yale-Brown Obsessive-Compulsive Scale (Y-BOCS); gold-standard for OCD symptom severity

Unique features of perinatal OCD

Pregnancy:

gradual onset
- contamination obsessions accompanied by cleaning and washing compulsions (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. avoiding infant, knives), mental rituals, compulsive checking of infant
-contamination obsessions and excessive cleaning compulsions

Risks of untreated OCD

- adverse pregnancy outcomes (preterm birth, low-birth weight, preeclampsia)
- reduced ability to care for the newborn
- negative impact on mother-infant bonding
- negative cognitive and emotional development in children
- diminished quality of life

Differential diagnosis of intrusive thoughts about harming the baby

OCD: thoughts of harm are ego dystonic (foreign/disturbing to the patient, inconsistent with their beliefs and values); feelings of guilt and shame, preserved insight, compulsive rituals, no desire to act on thoughts, no risk of infant-harming behaviors

Postpartum psychosis: thoughts of harm are ego syntonic (acceptable to the patient); poor insight, no feelings of guilt and shame, delusions and/or hallucinations, no compulsive rituals, increased risk of harm, never leave the mother alone with the baby

Postpartum depression: associated depressive symptoms, no delusions and/or hallucinations or mood-congruent psychotic symptoms, low risk of harm but increased risk with associated psychotic symptoms

Perinatal OCD (Continued)

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: limited data, no major malformations with exposure (n~500); low levels in breastmilk (dose <300 mg/daily), and not expected to cause adverse effects in the breastfed infant; monitor infants for diarrhea, vomiting, decreased sleep, and agitation.

Clomipramine: limited data and less well tolerated compared to SSRI's, associated with elevated risk of major malformations (n>1600, odds ratio 1.4) including cardiovascular defects (odds ratio 1.6), more severe and prolonged neonatal adaptation syndrome (jitteriness, tremor, and seizures); 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, try SNRI
- 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 OCD Resources

Review articles:

Hudepohl N, MacLean JV, Osborne LM. Perinatal Obsessive-Compulsive Disorder: Epidemiology, Phenomenology, Etiology, and Treatment. *Curr Psychiatry Rep.* 2022 Apr;24(4):229-237. doi: 10.1007/s11920-022-01333-4.

Brok EC, Lok P, Oosterbaan DB, et al. Infant- related intrusive thoughts of harm in the postpartum period: a critical review. *J Clin Psychiatry.* 2017;78(8):e913-e923. <https://doi.org/10.4088/JCP.16r11083>

Stein DJ, Costa DLC, Lochner C, et al. Obsessive-compulsive disorder. *Nature Reviews* 2019; 5:52; <https://doi.org/10.1038/s41572-019-0102-3>

Fairbrother N, Collardeau F, Woody SR, Wolfe DA, Fawcett JM. Postpartum Thoughts of Infant-Related Harm and Obsessive-Compulsive Disorder: Relation to Maternal Physical Aggression Toward the Infant. *J Clin Psychiatry.* 2022 Mar 1;83(2):21m14006. doi: 10.4088/JCP.21m14006. PMID: 35235718.

Fineberg NA, Van Ameringen M, Drummond L, et al. How to manage obsessive-compulsive disorder (OCD) under COVID-19: a clinician's guide from the International College of Obsessive-Compulsive Spectrum Disorders (ICOCS) and the Obsessive-Compulsive and Related Disorders Research Network (OCRN) of the European College of Neuropsychopharmacology. *Comprehensive Psychiatry* 2020; 100: 152174

Patient manuals:

Break Free from OCD: Overcoming Obsessive Compulsive Disorder with CBT Paperback – September 1, 2012 by Dr. Fiona Challacombe, Dr. Victoria Bream Oldfield, Professor Paul Salkovskis: https://www.amazon.com/Break-Free-OCD-Overcoming-Compulsive/dp/0091939690/ref=sr_1_1?dchild=1&qid=1618855536&refinements=p_27%3ADr.+Fiona+Challacombe&s=books&sr=1-1&text=Dr.+Fiona+Challacombe

Treatments that Work Exposure and Response (Ritual) Prevention Therapy (2012) by Edna B. Foa, Elna Yadin, Tracey K. Lichner: https://www.amazon.com/Exposure-Response-Prevention-Obsessive-Compulsive-Disorder/dp/0195335287/ref=sr_1_2?dchild=1&keywords=Treatments+that+work+ocd&qid=1590530983&s=books&sr=1-2

Websites for patients:

Royal College of Psychiatrists' page on Perinatal OCD
<https://www.rcpsych.ac.uk/mental-health/problems-disorders/perinatal-ocd>

International OCD Foundation page with fact sheets, brochures, apps, books about OCD; guidance in finding treatment
<https://iocdf.org/>

NIMH webpage about OCD with links to brochure, books
<https://www.nimh.nih.gov/health/topics/obsessive-compulsive-disorder-ocd/index.shtml>

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; rates of PTSD are as high as 24 % for women from racial minority groups, teens, and those of lower socioeconomic status

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 \(PCL-5\)](#): 20-item self-report checklist of PTSD symptoms (based closely on the DSM-5 criteria), cutoff score between 31-33 indicative of probable PTSD, used in the perinatal population but not specifically validated

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), pregnancy complications (preeclampsia, gestational diabetes)

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): effective in postpartum women regardless of whether birth was objectively traumatic
- Trauma-Focused Cognitive Behavioral Therapy (TFCBT): effective for women at risk for experiencing a traumatic birth
- Eye Movement Desensitization and Reprocessing (EMDR): could be especially effective for hyperarousal symptoms and postpartum PTSD following traumatic childbirth experience

Perinatal PTSD (Cont.)

Avoid starting prazosin (adjunctive agent for PTSD-related nightmares) **during pregnancy and lactation:** limited data and no adequate studies in pregnant women, concerns about how maternal hypotension could affect fetal growth

- Data from reports of its use in the treatment of HTN during pregnancy (n=268, usually in conjunction with other antihypertensives): no increased risk for birth defects
- Experimental animal studies: not expected to increase the risk of congenital malformations
- Case report of a fetal demise attributable to maternal hypotension and caused by an increased dose of prazosin
- Small study (n=11): no pattern of congenital anomalies or specific prazosin related fetal toxicity
- No reports examining effects of prazosin during lactation; the manufacturer has reported that "one mother excreted at most 3% of the dose into her breastmilk."
- If prazosin is essential to maintain psychiatric stability it is very important to inform the woman about the risks and benefits of this medication; greater bioavailability and slower elimination in pregnant women; lower dose than usual if prescribed during pregnancy;

Pharmacological treatment:

Recommended:

- SSRIs (sertraline, fluoxetine)
- Venlafaxine (if lack of response to SSRIs, hx of robust response to venlafaxine)
- See medication table in Perinatal Depression Care Guide for information about SSRIs, venlafaxine

Not recommended:

- Clonidine:
 - Use in pregnancy: associated with fetal growth retardation
 - Use during lactation: high serum levels, infant hypotonia, drowsiness, apnea, seizures
- Benzodiazepines: worsening treatment outcomes
- Propranolol: lack of evidence for PTSD, limited data in pregnancy and lactation

Interventions not effective:

Debriefing, counseling, trazodone, benzodiazepines

Perinatal PTSD Resources

Review Articles:

Cirino NH, Knapp JM. Perinatal Posttraumatic Stress Disorder: A Review of Risk Factors, Diagnosis, and Treatment. *Obstet Gynecol Surv.* 2019 Jun;74(6):369-376.

Davidson AD, Bhat A, Chu F, Rice JN, Nduom NA, Cowley DS. A systematic review of the use of prazosin in pregnancy and lactation. *Gen Hosp Psychiatry.* 2021 Jul-Aug;71:134-136.

Thomson M, Sharma V. Pharmacotherapeutic considerations for the treatment of posttraumatic stress disorder during and after pregnancy. *Expert Opin Pharmacother.* 2021 Apr;22(6):705-714.

Other references:

Zitoun N, Campbell MK, Matsui D, Garcia-Bournissen F. Prospective evaluation of pregnancy outcomes after gestational exposure to prazosin. *Br J Clin Pharmacol.* 2023 Nov;89(11):3324-3329. doi: 10.1111/bcp.15829. Epub 2023 Jul 10. PMID: 37323115.

Resources:

PTSD Checklist for DSM-5 (PCL-5):

<https://istss.org/clinical-resources/assessing-trauma/ptsd-checklist-dsm-5>

Internal Society for Traumatic Stress Studies:

www.istss.org

National Centers for PTSD:

<http://www.ptsd.org>

Prevention of Perinatal Mood Disorders

Laurel Pellegrino, MD



Prevention of Perinatal Mood Disorders

Why is prevention so important?

- Mental health disorders are **common** during the perinatal period.
 - 15-20% of birthing people experience anxiety and depression
- A history of mental health disorders puts patients at increased risk
 - 30-50% of those with a history of depression will have postpartum depression
- Mental health disorders can be **exacerbated** by pregnancy and the postpartum period.
- Untreated mental health disorders increase the risk of substance use and risky behaviors.

Prevention Strategies

1. Encourage **3 months of stability** before trying to conceive
2. Increase **healthy behaviors**: daily movement, balanced diet, and stress reduction.
3. Minimize the use of **substances**
4. Educate patients/families on the **warning signs** of mental health disorders
5. **Prescribe sleep** during the postpartum period
6. Maximize patients' **support network**. Consider prophylactic counseling for high-risk patients.
7. Decide whether to continue psychiatric **medications**. Avoid stopping medications abruptly.

Mild to moderate **daily exercise** has been shown to reduce the chances of perinatal depression and anxiety.

Should you continue psychiatric medications? Weigh the **risk of medications** vs the **risk of untreated mental illness**.

Medication risks: Many psychiatric medications are relatively safe during pregnancy. Use resources like mothertobaby.org to print medication fact sheets for your patients.

Risk of relapse when stopping medications:

- Antidepressants: 2.5x risk of depression relapse
- Mood stabilizers: 2x risk of bipolar relapse
- Antipsychotics: 2-3x risk of psychosis relapse

Risk of untreated mental illness

- Depression/anxiety increase the risk of preterm birth, preeclampsia, complications during delivery, postpartum depression, impaired bonding and attachment, and emotional problems in children.
- Bipolar disorder increases the risk of postpartum psychosis, substance use, self-harm, and missed prenatal visits.

For patients interested in supplements, vitamin B6 has some evidence for post-partum depression but should not replace medications.

Many people assume **cannabis** is safe but it negatively affects neurodevelopment of the fetus and can worsen depression and anxiety.

Prescribing sleep:
High-risk patients (e.g. bipolar disorder and severe depression) should get a continuous segment of 5-6 hours of sleep (e.g. by having someone else do a nighttime feeding).

If stopping meds, **taper slowly**. Abrupt discontinuation can increase the risk of relapse and/or withdrawal.

Perinatal Mental Health Prevention (Cont.)

Increasing supports and counseling

- Encourage patients to maximize their support system during the postpartum period. Having friends/family cook meals and help with housekeeping reduces stress and allows for more quality bonding time.
- Joining a support group can help normalize and validate experiences.
- Prophylactic cognitive behavior therapy (CBT) and interpersonal therapy (IPT) have been shown to reduce the risk of perinatal depression in high-risk populations by 39%.

Ways to reduce stress:

- Progressive muscle relaxation
- Deep breathing
- Mindfulness practices

Remind your patients that it's not their fault if they develop psychiatric symptoms. Even taking all these preventative measures is not a guarantee!

References and Resources

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Pregnancy Loss

Aba Nduom, MD



Pregnancy Loss

- There is a wide range of normal reactions to pregnancy loss. Some people will conceptualize it as their baby died and will even assign a sex and choose a name. Others will be more detached and focus on believing that their body did what it had to do. The depth of grief is only loosely correlated with the facts of the pregnancy and the loss.
- Always take cues from the patient, and even ask them what they would like to hear now. Ask both open ended and close ended questions. "What questions/fears do you have?" "What worries you the most right now?" "Would you like to discuss trying to conceive again?" If possible, offer to schedule another follow up appointment to answers questions they might not be ready to discuss right now.
- Most patients take comfort in being told that miscarriage is common and that there was nothing they did to cause it. However, few patients take comfort in being told that their body did the right thing by miscarrying a potentially abnormal pregnancy, as they see their body as what created the abnormal pregnancy in the first place.
- When the evidence base is slim or controversial, offer the patient clear options and rationale rather than absolute guidelines. For example, "Most people choose to wait for at least one period after their miscarriage before trying to conceive again. It makes it easier to date the next pregnancy and helps reassure you that your body has recovered. It is also okay to take more time to grieve and rest. There is no data that shows that it is easier to conceive immediately after a miscarriage."
- Be honest when recommendations are based in what insurance may or may not cover, as the reassurance from certain tests or procedures (for example, testing the products of conception after a first miscarriage) may be worth the out-of-pocket cost for some patients.
- Most women do not require psychiatric care after a single miscarriage, but some do. These losses can either cause a decompensation of a previous mental health diagnosis or can be the initial precipitation event for a new diagnosis. Consider having a standard list of self-help and professional resources to offer routinely, especially if the patient will not be having a follow up appointment to further discuss the miscarriage.
- For appointments related to pregnancy or infant loss, when possible, try to room the patients quickly to avoid leaving them in the waiting room. While they will not be able to avoid pregnant women forever, returning to your clinic or the hospital is often very stressful, and these little policy changes can make a world of difference for them. If possible, avoid rooming them in the same room where they found out about their loss. You can also consider turning down the volume on dopplers for heartbeat checks so that they are less likely to be heard between rooms.
- If a partner is present, remember to address them and their possible grief as well.

Additional Considerations

Terminations for Medical Reasons (TFMR): Patients who decide to terminate a pregnancy for medical reasons (either for their own health or due to medical findings about the fetus), typically experience these losses similar to those who experience spontaneous pregnancy losses and stillbirths, but often with an added layer of potential social stigma. These are situations in which the pregnancy was very much wanted, and TFMR often happens at a point in the pregnancy where they have either socially announced their pregnancy or were about to. Most parents who choose to TFMR are confident that they made the right decision, and also feel deep grief about their loss.

Elective Terminations: Several studies have shown that when elective terminations (terminations for social/personal reasons) are pursued without coercion, there is minimal to no long-term mental health impact. At the same time, some people, especially those who feel that they may have made a different decision if social or financial situations were different at the time of the pregnancy, may have more complicated feelings in the aftermath. Follow your patient's lead in how they talk about the termination, and do not assume guilt or emotional conflict.

Pregnancy After Loss: Pregnancy after loss often comes with a mix of joy and fear. Not only is there usually anxiety that the same type of loss may happen again, but often times, people have heightened anxiety about other potential adverse outcomes that can happen during pregnancy, or postpartum. Some people feel significant relief once they pass the timeframe of their previous loss(es), but this is not the case for everyone. And in the case of those who experienced stillbirth, the entire pregnancy may be experienced as a time of concern.

Common Medical Terms

Chemical/Biochemical Pregnancy – A very early miscarriage before anything can be seen on ultrasound. More commonly noticed these days due to the combination of the increased sensitivity of home pregnancy tests, and more people tracking their cycles more closely, and therefore testing earlier.

Miscarriage/Spontaneous Abortion – Pregnancy loss prior to 20 weeks gestational age. Most commonly happens prior to 10 weeks.

Threatened Miscarriage/Threatened Abortion – Bleeding during early pregnancy. May resolve without any consequences or may be the precursor to a miscarriage.

Missed Miscarriage/Missed Abortion – Fetal demise prior to the 20th week without spontaneous expulsion of the products of conception.

Blighted Ovum – A pregnancy characterized by the development of the gestational sac without an embryo.

Recurrent Pregnancy Loss – (old diagnosis: Habitual Aborter) The threshold number of losses varies from 2 to 3.

Stillbirth – Pregnancy loss after the 20th week.

Incidence

- Early Pregnancy loss (within the first trimester) is most common, and may be up to 31% especially when biochemical pregnancies are taken into account. Once a pregnancy is visualized on ultrasound with a reassuring heartbeat, the rates drop significantly.
- The rate of second trimester miscarriages is less than 1%.
- The stillbirth rate in the US is 6.0 per 1000 births, approximately 50% of which occur between 20 and 27 weeks gestation.
- With each subsequent pregnancy loss, the risk of having another one increases.

Pregnancy Loss Resources

Local organizations:

Perinatal Support of Washington's Perinatal Loss Resources (formerly Parent Support of Puget Sound)
Support groups and resources for those who have experienced miscarriage or infant loss.

<https://perinitalsupport.org/perinatal-loss-resources/>

National organizations:

RESOLVE: 1-866-668-2566

A national helpline providing peer support for people experiencing infertility or miscarriage.

<https://resolve.org/>

Virtual support groups:

Postpartum Support International (PSI) online support groups

Online support groups for pregnancy and infant loss and fertility challenges

<https://www.postpartum.net/get-help/psi-online-support-meetings/>

Workbooks:

Coping With Infertility, Miscarriage, and Neonatal Loss: Finding Perspective and Creating Meaning by Amy Wenzel

<https://www.amazon.com/Coping-Infertility-Miscarriage-Neonatal-Loss/dp/143381692X/>

Books:

The Brink of Being: Talking About Miscarriage by Julia Bueno

<https://www.amazon.com/dp/B07JVZGX1C/>

The Miscarriage Map: What To Expect When You Are No Longer Expecting by Sunita Osborn

<https://www.amazon.com/Miscarriage-Map-Expect-Longer-Expecting-ebook/dp/B07W4RV5DQ>

You Are Not Alone: Love Letters From Loss Mom to Loss Mom by Emily Long

<https://www.amazon.com/You-Are-Not-Alone-Letters-ebook/dp/B01CKR76P2/>

About What Was Lost: Twenty Writers on Miscarriage, Healing, and Hope by Jessica Berger Gross

<https://www.amazon.com/About-What-Was-Lost-Miscarriage-ebook/dp/B000SEGUS4/>

Empty Cradle, Broken Heart: Surviving the Death of Your Baby by Deborah Davis (Author)

<https://www.amazon.com/Empty-Cradle-Broken-Heart-Surviving-ebook/dp/B01MXLRP37/>

More about stillbirth, but some women who miscarry find reading about that helpful as well:

An Exact Replica of a Figment of My Imagination: A Memoir by Elizabeth McCracken

<https://www.amazon.com/Exact-Replica-Figment-My-Imagination-ebook/dp/B001DR7K02/>

Articles:

Eighteen Attempts at Writing About a Miscarriage by Alice Bradley

<https://www.thesunmagazine.org/articles/22056-eighteen-attempts-at-writing-about-a-miscarriage>

Dear Newly Bereaved Parent by Angela Miller

<https://stillstandingmag.com/2016/01/27/dear-newly-bereaved-parent/>

The Japanese Art of Grieving a Miscarriage by Angela Elson

<https://www.nytimes.com/2017/01/06/well/family/the-japanese-art-of-grieving-a-miscarriage.html>

Mourning my Miscarriage by Peggy Orenstein

<https://www.nytimes.com/2002/04/21/magazine/mourning-my-miscarriage.html>

The Heartbreak of Almost: A Modern Miscarriage Story by Nora McInerny

<https://medium.com/@noraborealis/the-heartbreak-of-almost-a-modern-miscarriage-story-d9cf5bb3d85d#.7hp46nsh1>

That Time We Didn't Become Parents on Social Media by Kelly Ferraro

<https://medium.com/@kellyferraro/that-time-we-didn-t-become-parents-on-social-media-bf18b1fb32a0#.tanuityv9x>

The Internet Still Thinks I'm Pregnant by Amy Pittman

<https://www.nytimes.com/2016/09/04/fashion/modern-love-pregnancy-miscarriage-app-technology.html>

"There Was No Child, I Told Myself": Life and Marriage after Miscarriage by Christen Decker Kadkhodai

<https://www.theguardian.com/lifeandstyle/2016/jul/16/miscarriage-pregnancy-motherhood-loneliness>

Podcasts:

Terrible, Thanks for Asking (Not specifically about miscarriage, but generally about coping with loss and hardship)

<https://podcasts.apple.com/us/podcast/terrible-thanks-for-asking/id1126119288?mt=2>

Sisters in Loss

<https://sistersinloss.com/blog/>

The Still Mama Tribe (again, more about stillbirth but some episodes about miscarriage)

<https://thestillmamatribe.wixsite.com/stillmamatribe/podcast>

Specific Episodes:

Katie's Crib: Miscarriages: You are not Alone with Amy Mass & Jackie Seiden

<https://podcasts.apple.com/us/podcast/miscarriages-you-are-not-alone-w-amyl-mass-jackie-seiden/id1367251383?i=1000411993304>

Dear Sugars: Redux: When Your Loved Ones Just Don't "Get It"

<https://podcasts.apple.com/us/podcast/redux-when-your-loved-ones-just-dont-get-it/id950464429?i=1000497826030>

Postpartum Psychosis

Ramanpreet Toor, MD and Deb Cowley, MD



Postpartum Psychosis

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

Risk factors	Etiology	Differential Diagnosis
Primiparity Prior postpartum psychosis History of mania (bipolar disorder) or psychosis Family history of postpartum psychosis Discontinuation of medications	Unclear Since childbirth is trigger, mechanism of onset is considered to be related to specific physiological changes leading to disease in genetically vulnerable population.	Postpartum depression Postpartum OCD (Obsessive-Compulsive Disorder) Other medical cause: Infections Autoimmune Medication reaction (e.g. steroids) Sheehan's Syndrome Encephalitis Metabolic

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

Risk Assessment (see also Assessing Safety section)	Treatment: Inpatient psychiatric admission
Increased risk of suicide (5%) or infanticide (4%) with untreated postpartum psychosis 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	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	Long-term outcomes after first onset postpartum psychosis:
Pharmacological Prophylaxis: -In chronic bipolar disorder: during pregnancy and postpartum - In postpartum psychosis limited to postpartum periods only: Start medication immediately postpartum Adequate sleep (at least 4-5 hours uninterrupted sleep at night) Family support Close monitoring by providers (OB and pediatrician)	- 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

Antipsychotic Medication Table (see Peripartum Agitation section for information about IV/IM medications)

Antipsychotic (Brand Name)	Therapeutic dose range for psychosis	Pregnancy	Neonatal Effects	Breastfeeding
Haloperidol (Haldol)	4-20 mg/day Doses can be higher with more severe symptoms	Higher risk for extrapyramidal signs Case series do not suggest an elevated risk for congenital malformations	In 2011, the FDA highlighted the risk of extrapyramidal signs (EPS) and other neonatal symptoms in newborns exposed to antipsychotic medications during the third trimester of pregnancy. Symptoms can include agitation, abnormal muscle tone (increased or decreased), tremor, sedation, respiratory distress, or feeding difficulties. Some affected infants recover quickly, while others may require additional hospital care.	Doses <10 mg daily produce low levels and no long-term adverse effects Negative effects when combined with other antipsychotics Monitor infant for drowsiness and developmental milestones
Risperidone (Risperdal)	3-6 mg	Effective for psychosis, acute agitation Possible increased risk of cardiac malformations		Doses up to 6 mg produce low levels in milk Limited data Monitor infant for sedation, inadequate weight gain, tremors, abnormal muscle movements, developmental milestones
Quetiapine (Seroquel)	ER:400-800 mg IR: 300-750 mg	Lowest placental transfer Not expected to increase rate of malformations Risk of metabolic syndrome Probable increased risk of gestational diabetes		Doses up to 400 mg produced low levels in milk Monitor infant for sedation, developmental milestones

Antipsychotic (Brand Name)	Therapeutic dose range for psychosis	Pregnancy	Neonatal Effects	Breastfeeding
Aripiprazole (Abilify)	10-30 mg	Not expected to increase rate of malformations Lower risk of metabolic syndrome Risk of akathisia Possible low risk of neurodevelopment disorder (Straub et al 2022)	In 2011, the FDA highlighted the risk of extrapyramidal signs (EPS) and other neonatal symptoms in newborns exposed to antipsychotic medications during the third trimester of pregnancy. Symptoms can include agitation, abnormal muscle tone (increased or decreased), tremor, sedation, respiratory distress, or feeding difficulties. Some affected infants recover quickly, while others may require additional hospital care.	Doses up to 15 mg produced low levels in milk Can LOWER SERUM PROLACTIN and decrease milk supply
Olanzapine (Zyprexa)	10-20 mg	Effective for mood stabilization, psychosis Sedating Not expected to increase rate of malformations Risk of metabolic syndrome! Not expected to increase rate of malformations Highest placental transfer (72.1%)		Doses up to 20 mg produce low levels in milk Sedation observed in some infants Recommended first line second generation antipsychotic in breastfeeding
Ziprasidone (Geodon)	40-80 mg	Not expected to increase rate of malformations 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 in infant

No or scant human data for newer antipsychotics including: asenapine, cariprazine, lurasidone, brexipiprazole

Postpartum Psychosis References

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Perinatal Schizophrenia

Ramanpreet Toor, MD and Deb Cowley, 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

Pregnancy complications: more frequent smoking, alcohol and substance addictions. More Gestational hypertension, 2-fold increased risk of GDM, Genito-urinary infection, IUGR, threatened pre-term labor

Delivery Complications: Stillbirths or medical abortions, Unexplained fetal/infant death, fetal deaths from severe neurological malformation

Neonatal/neurodevelopment complications: Low birth weight, SGA, Preterm birth, development delay, higher risk of intellectual disability, Congenital malformations (6 studies), behavioral problems

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 (see table below)

- If using a typical antipsychotic, high-potency agents preferred (e.g. haloperidol)
- Atypical antipsychotics: start quetiapine or olanzapine if not already 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 (cognitive-behavioral therapy) can also help in psychosis

Antipsychotic Medication Table (see Peripartum Agitation section for information about IV/IM medications)

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Sleep in the Perinatal Period

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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
Benzodiazepines *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 (although some reports do suggest a possible association, especially when benzodiazepines are used concurrently with antidepressants) 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
"Z Drugs" 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 zopiclone 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	
Antihistamines 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): 3 rd 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: 3 rd 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 human 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 handout on pregnancy and sleep:

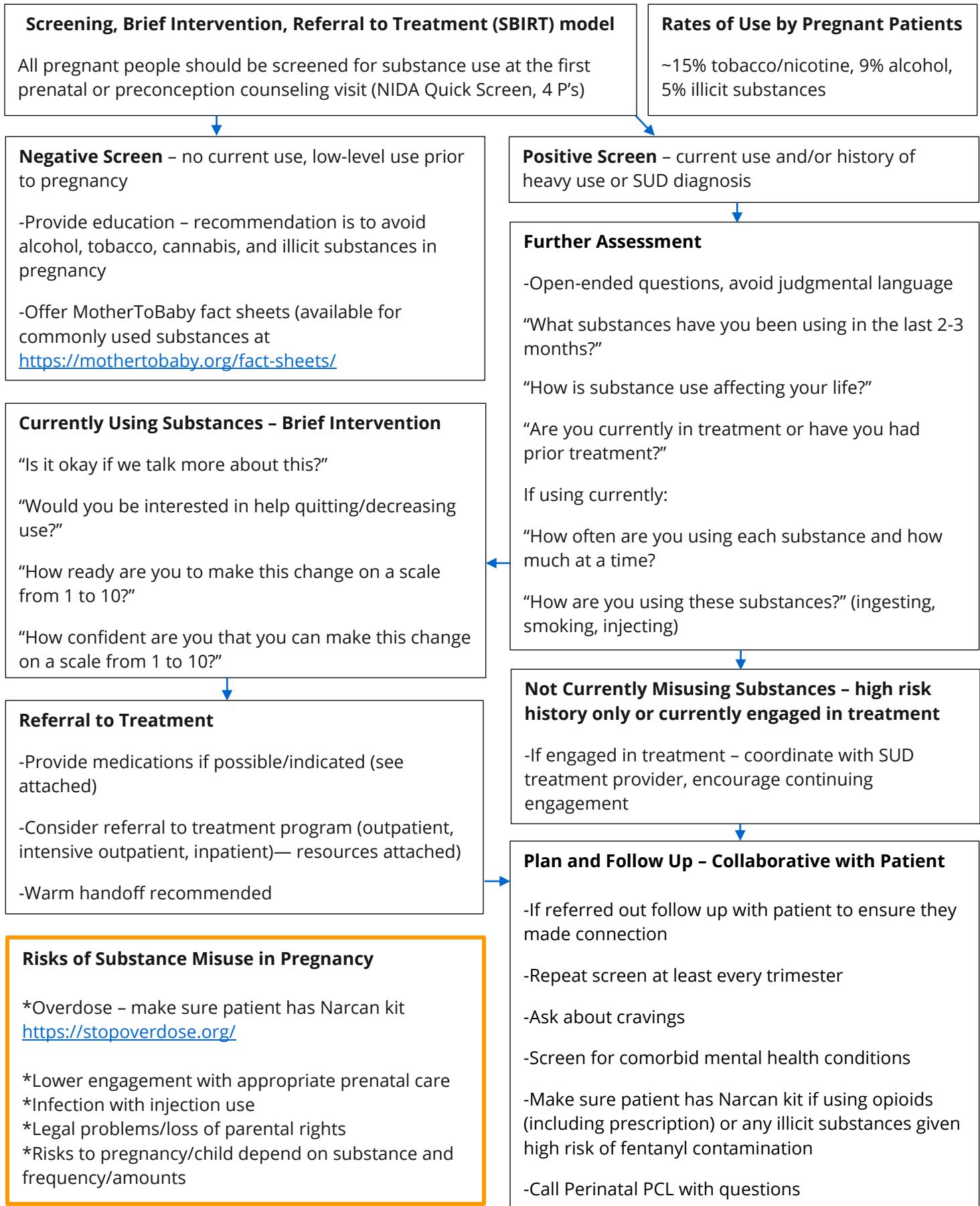
<https://www.sleepfoundation.org/pregnancy>

Substance Use in Pregnancy

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Substance Use in Pregnancy



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 Pregnancy?
2. Have you had a problem with drugs or alcohol in the Past?
3. Does your Partner have a problem with drugs or alcohol?
4. Do you consider one of your Parents to be an addict or alcoholic?

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

-Treatment Resources in Washington State:

WA Recovery Helpline: <https://www.warecoveryhelpline.org/>

SUD Treatment with Medicaid: <https://www.hca.wa.gov/free-or-low-cost-health-care/i-need-behavioral-health-support/substance-use-treatment>

Chemical-using Pregnant (CUP) Women Program: <https://www.hca.wa.gov/health-care-services-supports/apple-health-medicaid-coverage/chemical-using-pregnant-women>

Parent-Child Assistance Program (PCAP): <https://depts.washington.edu/pcapuw/>

-Peer Support:

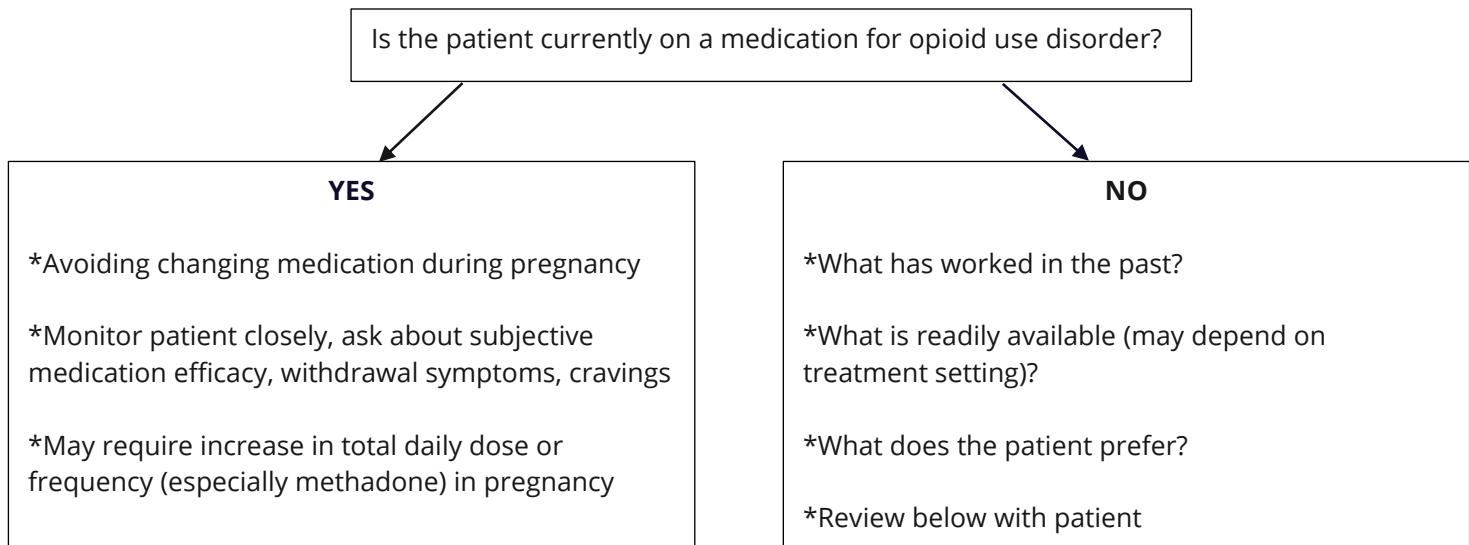
Alcoholic/Narcotics Anonymous: www.aa.org; www.na.org

SMART Recovery: www.smartrecovery.org

-Nicotine cessation:

Quit for Two: <https://women.smokefree.gov/pregnancy-motherhood/quitting-while-pregnant/quit-for-two>

Selecting a Medication for Opioid Use Disorder in Pregnancy



Considerations	Buprenorphine	Methadone
Prescribing setting	Office-based	Through Opioid Treatment Programs (pregnant patient have priority for access)
Dosing in pregnancy	May need to be increased	May need to be increased and converted from daily to twice per day
Risk of drug-drug interactions and QTc prolongation	Lower	Higher
Risk of overdose	Lower	Higher
Risk of sedation	Lower	Higher
Treatment retention	Lower	Higher
Risk of NOWS	Lower	Higher
Need to have withdrawal symptoms to start	Yes *low-dose induction is a way to avoid this	No
Breast/chestfeeding	Compatible (and should be supported to decrease NOWS risk) if no other contraindications	Compatible (and should be supported to decrease NOWS risk) if no other contraindications

Non-judgmental Language

Terms to Avoid:	Instead Use:
Alcoholic/drug addict/drug abuser	Person who uses substances
Addicted baby/born addicted	Child affected by maternal opioid use/Neonatal Opioid Withdrawal
Drug problem	Risky use/nonmedical use
Drug of choice	Substances used
Clean/dirty urine	Positive/Negative/Aberrant
Substitution/Replacement therapy	Medication for SUD/OUD, Medication-Assisted Treatment

Contact Perinatal PCL with questions:

Call 877-725-4666 or email ppcl@uw.edu

References:

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Rodriguez CE, Klie KA. Pharmacological treatment of opioid use disorder in pregnancy. *Semin Perinatol.* 2019 Apr;43(3):141-148. doi: 10.1053/j.semperi.2019.01.003. Epub 2019 Jan 21. PMID: 30755340.

Jones HE, Kaltenbach K, Heil SH, Stine SM, Coyle MG, Arria AM, O'Grady KE, Selby P, Martin PR, Fischer G. Neonatal abstinence syndrome after methadone or buprenorphine exposure. *N Engl J Med.* 2010 Dec 9;363(24):2320-31. doi: 10.1056/NEJMoa1005359. PMID: 21142534; PMCID: PMC3073631.

SAMHSA Clinical Guidance for Treating Opioid Use Disorder in Pregnant and Parenting Women and their Infants. <https://store.samhsa.gov/sites/default/files/d7/priv/sma18-5054.pdf>