Maternal sleep toolkit

Key facts[1]

- Physiologic changes of pregnancy can make sleep more difficult. Sleep disturbances affect 75% of pregnant people, peaking in the third trimester.
- Insomnia (38%), restless leg syndrome (20%), and sleep apnea (15%) are the most common sleep disturbances affecting pregnant people.
- Insomnia and sleep disturbances during pregnancy are associated with gestational diabetes, hypertension, preterm birth, cesarean delivery, and preeclampsia/ gestational hypertension.

Course of action

1. Identify causes
   - Use the Global Sleep Questionnaire in this toolkit to identify possible causes
   - Incorporate health disparity and pregnancy-specific considerations from this toolkit
2. Implement treatment based on etiology
3. Provide resources and monitor outcomes

Common etiologies for poor sleep during pregnancy[2,3]

	Medical			Psychiatric
Common risk factors and comorbidities	• Thyroid Disorder • Diabetes • Renal Disease • Anemia • Fibromyalgia • GERD	• Migraines • Epilepsy • Bruxism • Obstructive Sleep Apnea • Asthma	• Restless Leg Syndrome • Chronic Pain	• Depression • Anxiety • PTSD • OCD • Bipolar
Review med list for culprits*	• Central nervous system stimulants • Central nervous system depressant • Bronchodilators • Antidepressants			• Beta antagonist • Diuretics • Glucocorticoids
Orders and referrals to consider (for diagnostic clarity)	• Thyroid function test (TFT) • Blood sugar & HbA1c • BUN & creatinine • Iron studies • Sleep consult or polysomnogram (PSG)			• History taking • Screeners • Perinatal PCL consult for diagnostic clarity

*Meds that might cause or exacerbate sleep disturbances

Screening for sleep disturbances

What do I say?

"Many pregnant people have problems with sleep during pregnancy and in the postpartum period. People don't sleep well for a lot of different reasons. The good news is that there are many things that we can try to help you get some more sleep. Let's talk a little more to figure out what might be keeping you from sleeping well."

To assess outcomes and guide treatment, consider the following screeners and diary

Insomnia Severity Index[4]
A five question scale assessing insomnia.
healthquality.va.gov/HEALTHQUALITY/guidelines/CD/insomnia/CST-03-Insomnia-Disorder-Screening-Guide-Final-508.pdf

Epworth Sleepiness Scale[5]
An eight question scale assessing sleepiness.
cdc.gov/niosh/work-hour-training-for-nurses/02/epworth.pdf

Consensus Sleep Diary[6]
A weekly sleep diary, available to print or download the app.
Print: cbtiweb.org/ResourceFiles/Consensus%20Sleep%20Diary%20(CSD)%20(1).pdf
Download app: consensussleepdiary.com

Global Sleep Assessment Questionnaire And Treatment Considerations[7,8]

The Global Sleep Assessment Questionnaire is a comprehensive screening tool for use in primary care. Consider the following diagnoses and interventions based on questionnaire responses.

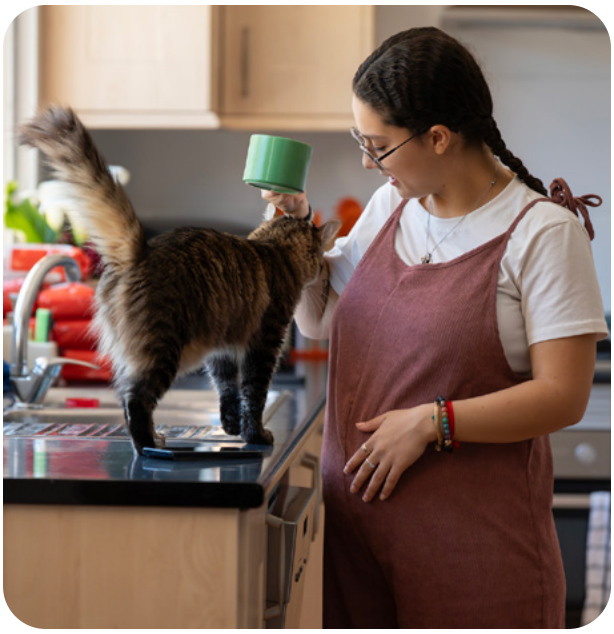
Global Sleep Assessment Questionnaire resource: **sleep.pitt.edu/sites/default/files/assets/Instrument%20Materials/GSAQ.pdf**

Questions	Consider diagnosis of...	Medical treatment		Psychiatric treatment		Sleep hygiene and education
		Treatment based on diagnosis	Sleep consult	Treatment based on diagnosis	CBT-I	
Do you have difficulty falling asleep, or feeling poorly rested in the morning?	Insomnia; Obstructive sleep apnea; Psychiatric	✓	✓	✓	✓	✓
Do you fall asleep unintentionally or have to fight to stay awake during the day?	Insomnia; Obstructive sleep apnea		✓		✓	✓
Do sleep difficulties or daytime sleepiness interfere with your daily activities?	Life activities; Insomnia; Psychiatric; Medical; Obstructive sleep apnea	✓	✓	✓	✓	✓
Do work or other activities prevent you from getting enough sleep?	Life activities					✓
Do you snore loudly?	Obstructive sleep apnea		✓			
Did you hold your breath, have breathing pauses, or stop breathing in your sleep?	Obstructive sleep apnea		✓			
Did you have restless or "crawling" feelings in your legs at night that went away if you moved your legs?	Restless leg syndrome	✓				✓
Did you have repeated leg jerks or leg twitches In your sleep?	Periodic limb disorder	✓	✓			
Do you have nightmares, or did you scream, walk, punch, or kick in your sleep?	Parasomnia; Psychiatric		✓	✓		
Did the following things disturb your sleep? Pain, other physical problems, worries, medications, other?	Life activities; Medical; Psychiatric	✓		✓		✓
Did you feel sad or anxious?	Psychiatric			✓	✓	✓

Note: Information in the header of the Global Sleep Assessment Questionnaire may facilitate detection of sleep disturbances (i.e. work shift data may aid in detection of circadian rhythm disorders). Also of note, this questionnaire does not screen for narcolepsy. Additional research on the validity of this screener is needed.

Screeners in this toolkit are available online and may require permission for reuse.

Pregnancy-specific considerations[9,10,11]



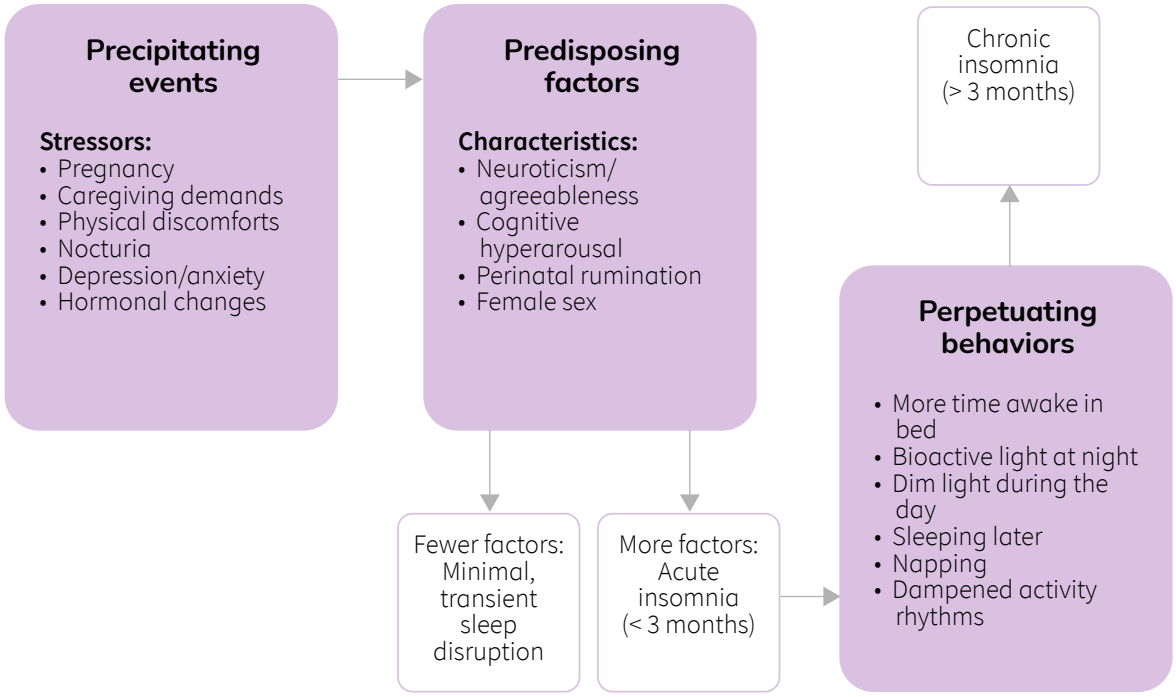
- Mental burden of adjusting to pregnancy
- Lifestyle, financial, and relationship changes
- Pressure on lungs affecting breath
- Pressure on bladder affecting urination
- Hormonal changes (e.g. estrogen and progesterone)

Common diagnoses: Insomnia, sleep apnea, restless leg syndrome

Insomnia[12]

Insomnia is classified into three categories: early (difficulty falling asleep); middle (difficulty staying asleep); and late (waking up too early). The disruption is distressing and results in daytime functional impairments.

3 P Model of Insomnia (as applied to the perinatal period)[13,14]



Sleep apnea[15,16]

- Sleep-disordered breathing is associated with obesity, hypertension disorders of pregnancy, gestational diabetes, and cardiomyopathy.
- Obstructive sleep apnea is associated with increased maternal morbidity and mortality, and increased risk for anesthesia complications.
- Frequent snoring is the most common symptom. Refer for a sleep consult for severe daytime drowsiness, debilitating fatigue, and other significant symptoms.
- Cpap settings may need to be adjusted in pregnancy for pre-existing sleep apnea.

Restless leg syndrome[17,18]

- Criteria used to confirm diagnosis:
  - Urge to move legs with unpleasant sensations,
  - Symptoms worsen with rest or inactivity,
  - Symptoms relieved with movement,
  - Symptoms worsen in the evening
- Can be a primary or secondary diagnosis; consider medications that may exacerbate (e.G. Some neuroleptics, antiemetics, antihistamines), end-stage renal disease, iron or folate deficiency (consider supplementation if indicated), and others.
- Benefits of non-pharmacologic measures are not well- studied, exercise in the first part of the day may be beneficial.

How do I help my patients?

Key: Pharmacological Non-pharmacological

Less severe

Severity of symptoms

More severe

Sleep hygiene

Provides basic support. Ineffective as standalone treatments for chronic insomnia.

Sleep hygiene basics:

- Avoid napping
- Limit caffeine
- Avoid nicotine and alcohol
- Exercise
- Quiet & dark sleep environment
- Use a clock (no electronic devices)
- Avoid large meals in the evening

Sleep education[19,20]

Provides basic support. Ineffective as standalone treatments for chronic insomnia.

Check out **babysleep.com** for expert tips on infant sleep.

Raise awareness and educate about:

- Perinatal-specific anatomical and physiological changes
- Beneficial lifestyle adjustments for stressors
- Detrimental practices based on misinformation

Additional considerations when addressing sleep concerns with your patient

Realistic expectations:

- Have household tasks been simplified?
- Have work adjustments been considered? (e.g. travel, FMLA usage, etc)
- Have you offered education on typical newborn sleep?

Social support:

- Are there concerns about interpersonal violence?
- How is the family adjusting to the pregnancy and/or new baby?
- Has sleep been prioritized over other activities?
- Would a sleep "prescription" be helpful?

Infant feeding:

- Has infant feeding been optimized? (Breastfeeding generally does not shorten nighttime sleep.)
- Have you evaluated for breastfeeding problems (e.g. mastitis, sore nipples, etc.)?

Infant sleep:

- Have you discussed a safe sleep environment for both parents and baby?
- Have you offered behavioral interventions for sleep?

Cognitive Behavioral Therapy-Insomnia (CBT-i)[21,22,23]

- First line treatment for chronic insomnia
- 6-8 sessions of therapy, focused on 3 aspects of sleep disturbance
- Treatment during pregnancy can prevent postpartum depression

Find a provider:

- CBTI directory: **cbti.directory** Some therapists may be able to provide telehealth sessions.
- Insomnia Coach: **mobile.va.gov/app/insomnia-coach** A free app from the VA.

CBT-i for pregnancy[24]

- Addresses pregnancy, newborn, and family dynamics
- Sleep restriction gudiance is modified to increase flexibility in bed/wake times

Components and purpose of CBT-i

- **Sleep education:** Improve understanding of normal sleep and behaviors that affect sleep
- **Cognitive therapy:** Change dysfunctional beliefs about sleep to reduce fear, anxiety, and effort around sleep
- **Behavioral**
  - **Sleep restriction:** Improve sleep efficiency by reducing time awake in bed and set stable schedule
  - **Stimulus control:** Reduce stimuli that increases wakefulness before and during sleep time
  - **Relaxation:** Reduce mental activity and physical tension before bed

Medications

Consider with these factors: Non-pharmacological treatment is ineffective, insomnia is severe, and/or benefits outweigh the risks.

For considerations for medication use for sleep management during pregnancy and lactation, visit the **PERC care guide** at **perc.psychiatry.uw.edu/wp-content/uploads/2024/02/Perinatal-Sleep-Care-Guide.pdf**

Resources for patients

Help with sleep management during pregnancy and lactation

Remember, we can't force ourselves to sleep...Just like our kids need a bedtime routine, adults also need signals that tell our bodies that it's time to sleep.

Sleep safety
safesleepnc.org

Sleep advice
babysleep.com

CBT-i App (free)
mobile.va.gov/app/cbt-i-coach

Medication safety
mothertobaby.org

Ask your provider for a "prescription" for sleep or extra help to share with loved ones using the form below.

Prescription for sleep

Dear _____ friends and family,
Patient name

_____ has recently given birth to _____.
Patient name *Baby name*

I would like to request your support for adequate rest and sleep for them.

Please consider helping them in the following ways so they can nap/rest:

- ☐ Make the beds
- ☐ Hold the baby
- ☐ Make a meal
- ☐ Prepare snacks (like chop fruits and veggies)
- ☐ Wash/load/unload the dishes
- ☐ Load/fold laundry
- ☐ Water the plants
- ☐ Walk the dog/empty the kitty litter
- ☐ Vacuum/dust
- ☐ Clean: _____
- ☐ Play with other kids
- ☐ Take the kids outside to play or for a walk
- ☐ Help the kids with homework/bedtime or nap routine/bathing/meal or snack
- ☐ Take/pick-up kids to/from school or activities
- ☐ Drive _____ to work
- ☐ Other: _____

Thank you for your support!

_____
Provider signature

My pregnancy bedtime checklist

Having a routine can help signal to our bodies that it's time to sleep.

My bedtime is: _____ am / pm

- ☐ Use this tool to calculate your bedtime: **sleepeducation.org/healthy-sleep/bedtime-calculator**
- ☐ Get up at the same time every day, even on weekends or during vacations

Every day:

- ☐ Get some exercise (the recommendation is generally 150 minutes per week)
- ☐ Eat healthy foods

10 hours before bed: _____ am / pm

- ☐ Stop drinking caffeine (limit total daily caffeine to <200 mg)
- ☐ Use this calculator to calculate your caffeine intake: **tommys.org/pregnancy-information/calculators-tools- resources/check-your-caffeine-intake-pregnancy**

60 minutes before bed: _____ am / pm

- ☐ Adjust temperature to make house cooler
- ☐ Lower the lights
- ☐ Consider a healthy snack (do not eat a meal before bed)
- ☐ Stop drinking fluids
- ☐ Elevate feet if they are swollen
- ☐ Consider making a 'to-do' list to help your mind unwind
- ☐ Try journaling if you mind is busy

30 minutes before bed: _____ am / pm

- ☐ Turn off electronic devices
- ☐ Do something relaxing to help your body unwind

These activities help me relax (check all that apply):

- ☐ Warm shower or bath
- ☐ Reading
- ☐ Music
- ☐ Deep breathing, body scan or other mindfulness activity
- ☐ Other: _____

Not asleep after 20 minutes?

- ☐ Get out of bed
- ☐ Go do a quiet activity without a lot of light exposure (read or audio content that is not too stimulating)
- ☐ Do not use electronics

Note: This is not intended to be medical advice—talk to your provider about what's right for you.
This checklist was developed by Karen Saxer based on and as a complement to the 4th Trimester Project Materials. 4th Trimester Project materials are available at **newmomhealth.com/toolkit/postpartum-plan-for-new-parents**

Additional resources for providers

Perinatal Psychiatry Consultation Line for Providers (Perinatal PCL) (Washington)

Perinatal PCL is a free, state-funded program providing perinatal mental health consultation, recommendations and referrals for Washington state providers caring for pregnant or postpartum patients.

Schedule a consultation: **perinatalpcl.as.me/schedule.php**.

Call: 877-725-4666 (Available Mon–Fri, 9 AM–5 PM, closed UW holidays)

Email: ppcl@uw.edu

Website: **perc.psychiatry.uw.edu/perinatal-pcl**

Information on medication use during pregnancy and infant feeding

Mother to Baby

- Fact sheets on perinatal exposures to share with patients
- Chat with an exposure expert, enroll your patient in observational studies, or schedule a patient consult
- Website: **mothertobaby.org**

Lactmed

- Database on exposure of drug and chemicals to which a breast/chest-feeding parent may be exposed
- Website: **ncbi.nlm.nih.gov/books/NBK501922**

Sleep safety in babies and young children

Safe to Sleep

- Sharable patient resources
- SIDS science and research updates
- Website: **safesleepnc.org**

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