PSYCHIATRIC MEDICATION USE DURING PREGNANCY AND BREASTFEEDING

Psychotropic medication use during pregnancy may have adverse effects, however, there is a growing body of evidence that some medications may be acceptable for use during pregnancy. As with any medication, risks and benefits must be considered for each individual. This resource provides useful information and reviews existing research on risks and benefits of psychotropic medication use during pregnancy.

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The presence of psychiatric disorders during pregnancy is not uncommon; approximately 500,000 pregnancies each year involve women with an emerging or already present psychiatric illness and an estimated 30% of women take some form of psychotropic medication while pregnant.[1] Mental illness, especially untreated, may lead to poor health outcomes during and after pregnancy for both the baby and mother, including inadequate prenatal care, poor nutrition, alcohol/tobacco use, and deficits in mother-infant bonding; thus, it is important to consider whether patients with mental illness can be safely treated during pregnancy. While all psychotropic medications cross the placenta, are present in the amniotic fluid and can enter into breast milk, not all produce teratogenic effects. Considering what stage of pregnancy psychotropic medications are taken is helpful in predicting teratogenicity; most risk occurs during the period of embryogenesis (weeks 3 - 8 of pregnancy). If medication use is necessary during pregnancy, a single medication at a higher dose is recommended over the use of multiple medications and changing medications is not recommended as it increases the level of exposure to the fetus.

Depression

Up to 70% of women experience symptoms of depression while pregnant. Screening with the PHQ-9 is an appropriate method and useful tool to detect depression early in pregnancy. Depression occurring before conception often appears during pregnancy or reappears as postpartum depression. Untreated depression is associated with premature birth, low birthweight, postnatal complications, poor maternal weight gain, smoking, and drug/alcohol use during pregnancy.[2]

Medications such as tricyclic antidepressants (TCAs) and selective serotonin reuptake inhibitor (SSRI) fluoxetine (Prozac) have been shown to be relatively safe for use during pregnancy; neither teratogenic effects nor behavioral teratogenicity have been reported.[3, 4, 5] Use of SSRI paroxetine (Paxil) early in pregnancy is associated with birth defects, including heart defects, craniosynostosis and omphalocele. SSRI use later in pregnancy may lead to transient infant withdrawal symptoms after birth. Limited data on use of novel agents, such as venlafaxine (Effexor), nefazodone (Serzone), or bupropion (Wellbutrin) during pregnancy do not suggest an increased risk of fetal anomalies or adverse events. The use of monoamine oxidase inhibitors is not recommended during pregnancy.[6] Alternate treatment approaches for depression during pregnancy include structured psychotherapy.

Bipolar Disorder (BPD)

BPD onset in women commonly occurs in the teens or early 20s. Though the course of BPD during pregnancy is not well known, the postpartum relapse rate of BPD among untreated women is up to 50% but treatment initiation prior to delivery may reduce the risk of relapse.[7] Treatment should be provided in consultation with a psychiatrist and consider both patient history of mood disorder symptoms and treatment risks.

Many mood stabilizers used to treat BPD are known teratogens.[8] Lithium is associated with a small increase in congenital cardiac malformations; first trimester exposure is associated with risk of Ebstein's anomaly and exposure later in gestation is associated with cardiac arrhythmia, hypoglycemia, nephrogenic diabetes insipidus, polyhydramnios, and premature delivery.[9,10,11,12] Proper hydration can reduce the risk of lithium toxicity and regular lithium level monitoring should be performed. Prenatal exposure to valproate (Depakote) is associated with an increased risk of neural tube defects, craniofacial, limb and cardiovascular issues.[13,14,15,16] Other mood stabilizers should be considered, but if Depakote is taken during pregnancy, a dose of less than 1,000 mg/day should be taken in divided doses. Carbamazepine (Tegretol) exposure during pregnancy is associated with facial dysmorphism and fingernail hypoplasia and should only be used during pregnancy if there are no other options.[17,18] Vitamin K should be taken by women who are treated with both Depakote and Tegretol to promote proper development of the infant's head and face.

Typical antipsychotics and some atypical appear to be relatively safe for use during pregnancy, although both are associated with a slightly increased risk of birth defects. Psychotherapy, regular exercise and stress management are other non-pharmaceutical options to manage symptoms of BPD and should be first line intervention in the treatment plan.

Anxiety Disorders

The course of anxiety disorders during pregnancy is not well known, however, relapse is common during pregnancy and postpartum if medication is discontinued. Anxiety and stress during pregnancy is associated with poor outcomes including spontaneous abortions, preterm delivery and delivery complications including prolonged labor, precipitate labor, and fetal distress.

Use of BZD during pregnancy is discouraged due to a possible association between BZD use and oral cleft development in infants.[19] Further, neonatal toxicity and withdrawal symptoms are probable with maternal use of BZD just before delivery.[20] Use of Buspirone (Buspar) which is pregnancy safe is an appropriate alternative medication option. Cognitive behavioral therapy should be considered as an alternate treatment option

Schizophrenia-spectrum Disorders

Schizophrenia affects approximately 1-2% of women and onset commonly occurs during childbearing years. Schizophrenia is associated with negative pregnancy outcomes including preterm delivery, low birth weight and small for gestational age fetuses.

Treatment of schizophrenia with typical antipsychotics poses minimal risk of teratogenicity. Specifically, use of haloperidol (Haldol) is preferred during pregnancy as extensive data suggests it is not associated with any congenital malformations with first trimester exposure.[21] Low dosage of these medications is preferred to reduce the risk of extrapyramidal side effects as medications used to treat these symptoms are associated with increased risk of oral clefts.[19] Atypical antipsychotics have not been studied as extensively, so use of these agents can not be recommended during pregnancy or breastfeeding with the exception of Latuda which is considered safe for pregnancy.

Pregnant and not currently on medication for depression

Psychotherapy may be beneficial in women who prefer to avoid antidepressant medication.

For women who prefer taking medication, risks and benefits of treatment choices should be evaluated and discussed, including factors such as stage of gestation, symptoms, history of depression, and other conditions and circumstances (e.g., a smoker, difficulty gaining weight).

All pregnant women

Regardless of circumstances, a woman with suicidal or psychotic symptoms should immediately see a psychiatrist for treatment.

Generic Name	Trade Name	Pregnancy Risk Category	Lactation Risk Category
Benzodiazepines			
Alprazolam	Xanax	D	L3
Chlordiazepoxide	Librium	D	L3
Clonazepam	Klonopin	D	L3
Clorazepate	Tranxene	D	L3
Diazepam	Valium	D	L3; L4 if used chronically
Lorazepam	Ativan	D	L3
Oxazepam	Serax	D	L3
Benzodiazepines for Insomnia			
Estazolam	Prosom	X	L3
Flurazepam	Dalmane	X	L3
Quazepam	Doral	X	L2
Temazepam	Restoril	X	L3
Triazolam	Halcion	X	L3
Sedative/Hypnotic/Antianxiety			
Buspirone	BuSpar	B	L3
Chloral hydrate	Noctec	C	L3
Clonidine	Catapres	C	L3
Eszoplicone	Lunesta	C	L3
Hydroxyzine	Vistaril	X	L1
Propanolol	Inderal	C	L2
Zaleplon	Sonata	C	L2
Zolpidem	Ambien	B	L3
Mood Stabilizers/AED			
Carbamazepine	Tegretol	D	L2
Divalproex acid	Depakote	D	L2
Gabapentin	Neurontin	C	L2
Lamotrigine	Lamictal	C	L3
Lithium carbonate	Eskalith, Lithotabs, Lithonate	D	L4
Oxcarbazepine	Trileptal	C	L3
Topiramate	Topamax	C	L3
Antidepressants			
Amitriptyline	Elavil, Endep	D	L2
Amoxapine	Asendin	C	L2
Bupropion	Wellbutrin	B	L3
Citalopram	Celexa	C	L3
Clomipramine	Anafranil	C	L2
Desipramine	Norpramin	C	L2
Doxepin	Sinequan, Adapin	C	L5
Duloxetine	Cymbalta	C	L3
Escicitalopram	Lexapro	C	L3 in older infants
Fluoxetine	Prozac	C	L2 in older infants; L3 in neonatal period
Fluvoxamine	Luvox	C	L2
Imipramine	Tofranil	D	L2
Maprotiline	Ludiomil	B	L3
Mirtazapine	Remeron	C	L3
Nefazodone	Serzone	C	L4
Nortriptyline	Pamelor, Aventyl	D	L2
Paroxetine	Paxil	D	L2
Protriptyline	Vivactil	C	N/A
Sertraline	Zoloft	C	L2
Trazodone	Desyrel	C	L2
Venlafaxine	Effexor	C	L3

Generic Name	Trade Name	Pregnancy Risk Category	Lactation Risk Category
Typical Antipsychotics			
Chlorpromazine	Thorazine	C	L3
Fluphenazine	Prolixin	C	L3
Haloperidol	Haldol	C	L2
Loxapine	Loxitane	C	L4
Perphenazine	Trilafon	C	N/A
Pemozide	Orap	C	L4
Thioridazine	Mellaril	C	L4
Thiothixene	Navane	C	L4
Triavil	Prolixin/Elavil	C/D	L3
Trifluoperazine	Stelazine	C	N/A
Ziprasidone	Geodon	C	L4
Atypical Antipsychotics			
Aripiprazole	Abilify	C	L3
Clozapine	Clozaril	B	L3
Olanzapine	Zyprexa	C	L2
Quetiapine	Seroquel	C	L4
Risperidone	Risperdal	C	L3
Ziprasidone	Geodon	C	L4
Stimulants			
Amphetamine	Adderall	C	L3
Dextroamphetamine	Dexedrine	C	L3
Methamphetamine	Desoxyn	C	N/A
Methylphenidate	Ritalin	C	L3
Pemoline	Cylert	B	N/A
Medications for Side Effects			
Amantadine	Symmetrel	C	L3
Benztropine	Cogentin	C	L3
Biperiden	Akineton	C	N/A
Bromocriptine	Parlodel	C	L5
Diphenhydramine	Benadryl	B	N/A
Trihexyphenidyl	Artane	C	N/A
Sildenafil	Viagra	B	N/A

N/A	Not Available
Pregnancy Risk Categories[22]	
A	Controlled studies show no risk
B	No evidence of risk in humans
C	Risk cannot be ruled out
D	Positive evidence of risk
X	Contraindicated in pregnancy
Lactation Risk Categories[23]	
L1	Safest
L2	Safer
L3	Moderately safe
L4	Possibly hazardous
L5	Contraindicated

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PATIENT EDUCATION MATERIAL

Medications and Pregnancy

About this topic

Taking drugs while you are pregnant can harm your baby. Only take drugs that your doctor gives you. Talk to your doctor first before taking any other drugs.

Taking certain drugs can cause:

- Problems with how your baby grows
- Harm to your womb which may put your baby's life at risk
- Loss of pregnancy before the baby is born (miscarriage)
- Early delivery (premature birth)
- Birth defects

General

Pregnant women are not involved in studies for drugs. So, we do not know very much about what taking drugs may do to your baby. You need to be very careful before taking any drugs. Talk with your doctor about the good and bad things before taking any drug. This will help you decide what to do.

Drugs may affect your baby based on:

- When you take the drug during your pregnancy (the stage of your baby's growth)
- The drug taken
- How much of the drug you take
- If the drug you are taking is mixed with other drugs
- If you have a health problem

Taking drugs during pregnancy:

- Never take any drug unless your doctor says it is OK. This includes prescription, over-the-counter (like cough or cold) drugs, and herbals (like St. John's wort). Always check with your doctor before taking any kind of drugs.

Take prenatal vitamins and supplements that have folic acid. Do not take normal vitamins. Talk with your doctor about the right vitamins and supplements to take.

Get a flu shot if you are pregnant during flu season. This is safe for your baby.

If you are taking drugs for a health problem, check with your doctor to make sure the drugs are safe for your baby. Your doctor will find drugs that are safe for you and your baby.

If you took drugs before you knew you were pregnant, tell your doctor right away.

Helpful tips

Instead of taking drugs:

Treat hard stools by eating foods high in fiber like whole-grain breads and cereals, beans, peas, apples, berries, and broccoli.

Stay away from foods and smells that may cause an upset stomach.

Rest and drink lots of fluids to help with colds.

Where can I learn more?

Centers for Disease Control and Prevention

http://www.cdc.gov/ncbddd/pregnancy_gateway/meds/index.html

Women's Health Matters

http://www.womenshealthmatters.ca/health-resources/sexual-health/pregnancy/preconception