Perinatal Schizophrenia

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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)

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!		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, brexiprazole

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