Depression in Pregnancy and the Postpartum Period

Sarah Gopman, MD
Assistant Professor
Maternal and Child Health Grand Rounds
Dept. of Family and Community Medicine
University of New Mexico
April 4, 2012
Learning Objectives

- Understand the epidemiology of depression in pregnancy and the postpartum period
- Learn special techniques to assess for depression in this population
- Be able to counsel women regarding appropriate treatment of depression around the time of pregnancy and breastfeeding, and the associated risks and benefits
Your patient...

- “Felicia”: 23 year old woman cared for by you since she was 19
- H/o major depressive d/o, including hospitalization for suicide attempt age 17
- Paroxetine (Paxil) for two years with good results
- Attending school to become medical assistant, working part-time
Your patient...

- Newly married for a year
- Interested in having a child soon
- Heard about some risks with antidepressants in pregnancy
- Very nervous about discontinuing medication
- During annual exam states she is considering stopping her oral contraceptives
What do we know about depression in pregnancy?

- Pregnancy once thought to decrease risk of depression—this is false
- In 2003, 13% of women took an antidepressant sometime during their pregnancy
- 500,000 U.S. pregnancies per year in women w/ psychiatric illness predating or emerging during pregnancy
What type of mood disorders occur in the postpartum period?

- Postpartum/baby “blues”: ~80% of women affected
  - Feeling overwhelmed
  - Irritability
  - Tearfulness
  - Exhaustion
  - Trouble falling or staying asleep
  - Usually resolves by two weeks postpartum
What type of mood disorders occur in the postpartum period?

- Postpartum depression
  - 10-20% of women affected
  - Greatest risk is first 12 weeks after delivery, but risk persists for one year
  - Symptoms last more than 14 days
What type of mood disorders occur in the postpartum period?

- Postpartum depression symptoms
  - Tearfulness, sad or flat affect, irritability, mood instability
  - Feeling inadequate, guilty, overwhelmed
  - Sleep and appetite disturbance
  - Intense worries or obsessive thoughts re. harm to the baby
  - Difficulty concentrating or making decisions
  - Lack of interest in the baby, family or activities
  - Poor bonding
  - Thoughts of death or suicide
  - Somatic symptoms: HA, CP, palpitations, numbness, hyperventilation
What type of mood disorders occur in the postpartum period?

- Postpartum psychosis: 1-2 in 1000 women affected
  - Agitation and anger
  - Anxiety/Paranoia
  - Insomnia/Delirium/Confusion
  - Mania (hyperactivity, elated mood)
What type of mood disorders occur in the postpartum period?

- Postpartum psychosis
  - Suicidal or homicidal thoughts
  - Auditory hallucinations (about the baby, of a religious nature)
  - Visual hallucinations (seeing or feeling “a presence” or “darkness”)
  - Delusions and commands to harm the infant (not just an obsessive thought)

**EMERGENCY:** PSYCHIATRIC HOSPITALIZATION NECESSARY
“Suicides account for up to 20% of all postpartum deaths and represent one of the leading causes of peripartum mortality.” (2005 in Archives of Women’s Mental Health)
What is different about postpartum depression?

- Sleep deprivation the norm postpartum
- Strong societal expectations about maternal happiness postpartum
- 50% of postpartum depression goes undiagnosed
- Postpartum depression affects mothers, children, partners, and families
Dear Sleep,

I miss you. 😞

O'Molly
Back to your patient: What will you tell her about the risks of antidepressant use in pregnancy?

- Paroxetine (Paxil) in first trimester reported to increase risk of cardiac anomalies
  - 2/1000 births
  - Criticism regarding inclusion of clinically insignificant defects
  - Current recommendation is against use in first trimester
Risks of antidepressant use in pregnancy:

- SSRIs increase risk of persistent pulmonary hypertension of the newborn (PPHN)
  - Failure of pulmonary vasculature to decrease resistance at birth
  - Causes hypoxia, may require intubation
  - Risk rises from 0.5-2/1000 to 3-6/1000
  - 10-20% mortality
  - Associated with use after 20 wks GA
  - No info available re. relative risks of specific SSRIs
  - Other risk factors: maternal smoking, maternal diabetes, neonatal sepsis, meconium aspiration, cesarean delivery
Risks of antidepressant use in pregnancy....

- All SSRIs can cause neonatal serotonin syndrome and withdrawal syndrome
- Together called “poor neonatal adaptation” or “neonatal behavioral syndrome”
- Difficult to distinguish from each other
  - Poor feeding and sleeping
  - Altered muscle tone
  - Tremors, jitteriness, seizures
  - Hypoglycemia
  - Respiratory problems
  - Constant crying
Risks of antidepressant use in pregnancy….

- Neonatal Behavioral Syndrome
  - Temporary--resolves by two weeks or sooner
  - Can require extended hospitalization
  - Possibly worse with paroxetine (Paxil) due to short half-life, no active metabolites

- No data to support long term effects on neurodevelopment, based upon
  - IQ scores at 16 and 86 months
  - Parental and observer report of behavior at age 4 years
  - Confounded by residual maternal depression and/or multiple med exposures (e.g. antipsychotics, etc.)
A word about the FDA pregnancy category system..

- Confusing, falsely suggesting an increasing level of risk from category A to X
  - e.g.: OCs are X because there is no reason to use in pregnancy, but no evidence of birth defects
  - e.g.: RHO immune globulin (Rhogam) is C ???
- Meds in the same category have very different levels of actual risk and of evidence supporting their categorization
A word about the FDA pregnancy category system....

- New model somewhere on the horizon...
  - Clinical considerations
  - Risk assessment
  - Specifics on fertility, pregnancy, and lactation

- In the meantime...
  - **Drugs in Pregnancy and Lactation** (Briggs, Freeman, & Yaffe)
  - **Medications and Mother’s Milk** (Hale)
  - LactMed
  - Reprotox (Micromedex)
What should you tell her about the risks of discontinuing medication in pregnancy?

- With hx recurrent major depression, 68% relapse rate w/ discontinuation of medication around the time of pregnancy

- Depression in pregnancy associated w/
  - Poor weight gain
  - Increased risk of preterm delivery
  - Low birth weight
  - Increased use of cigarettes, alcohol, other substances
What should you tell her about the risks of discontinuing medication in pregnancy?

- Mothers who are depressed show
  - Less affectionate behavior
  - Less response to infant cues
  - More hostile/intrusive interactions with their infants

- Children of mothers with untreated depression exhibit
  - Impaired emotional development
  - Poorer language development
  - Difficulties with attention
  - Decreased cognitive skills
  - Increased risk for long-term behavioral problems
What should you tell her about the risks of discontinuing medication in pregnancy?

- Children of mothers with untreated depression exhibit:
  - More fussiness and colic
  - Impaired emotional development: fewer positive facial expressions
  - Poorer language development: less vocalization
  - Difficulties with attention
  - Decreased cognitive skills
  - Increased risk for long-term behavioral problems

- Remission of maternal depression improves children’s mental and behavioral disorders

- Consider depression during pregnancy and postpartum as an exposure with associated risks for the infant!
To minimize risk, how might you manage her medication?

- In preparation for pregnancy
  - Gradually wean paroxetine (Paxil)
  - Weaning preferable to abrupt d/c due to risk for discontinuation syndrome in adults
- Consider beginning fluoxetine (Prozac)
  - Plan to continue it at least until the first missed period
  - Preferred during pregnancy due to theoretically more stable drug levels associated with longer half-life
To minimize risk, how might you manage her medication?

- Consider avoiding medication exposure during the first trimester
  - Valuable even if eventually restarts meds during pregnancy
  - Should only be done if you feel patient safe off medications (i.e. suicidality, etc).

- If continues fluoxetine (Prozac) throughout pregnancy or restarts sometime during the pregnancy
  - Consider switch to sertraline (Zoloft) at around 36 weeks
  - More favorable re. neonatal withdrawal/serotonin effect and breastfeeding
  - Avoids medication change during vulnerable postpartum period
  - Drawback of multiple exposures during pregnancy
What can you tell your patient about non-pharmacological treatment of depression?

- Cochrane Review: any psychosocial or psychological intervention, compared to usual postpartum care, is associated with reduction in risk of continued postpartum depression.

- Breastfeeding may be somewhat protective against postpartum depression (oxytocin release?)
Non-pharmacological interventions...

- Cognitive Behavioral Therapy
  - Good results w/ group approach
  - 10-40% fail to complete full treatment (similar to pharmacotherapy)
  - May have enduring effects not seen w/ pharmacotherapy (up to two years)

- Six sessions of non-directive counseling w/ child health nurses was more effective than routine primary care in Sweden

- Telephone-based peer support out-performed care as usual (five 30-minute conversations)
Your patient...

- Elects to discontinue all medications prior to conception
- Responds well to Cognitive Behavioral Therapy during pregnancy
- Delivers a healthy term baby girl with no complications
How would you approach your patient’s care if she had a hx of bipolar disorder?

- Lithium
  - 1st trimester exposure → 10X increase in incidence of Ebstein’s anomaly (right ventricle hypoplasia and abnormal tricuspid valve)
  - Reports of perinatal cyanosis and hypotonia ("floppy baby syndrome")
  - Depending on disease severity could be d/c’d before conception and restarted after organogenesis
  - Not recommended for use in breastfeeding
How would you approach your patient’s care if she had a hx of bipolar disorder?

- Valproic acid (Depakote, Depakene) and carbamazepine (Tegretol)
  - 1st trimester exposure → 10X increase in neural tube defects
  - Increase risk of oral clefts and other facial dysmorphisms
  - Both considered acceptable in breastfeeding
- Lamotrigine (Lamictal)
  - No clear increase in congenital malformations
  - Some possible increase in midline facial clefts
- Risk of postpartum relapse of bipolar disorder if untreated is 30-50%
- Some clinicians start tx before delivery or in immediate postpartum period
What are the options for treatment of anxiety disorders in pregnancy?

- Among poor pregnant women, prevalence of PTSD is 7.7%
- Anxiety is common co-incident condition with depression
- Benzodiazepines
  - Possible 2X increased risk of clefts
  - Newborn hypotonia, apnea, hypothermia, feeding problems
  - Some suggestion of developmental delay
- Buspirone (BuSpar) has almost no data on use in pregnancy
- SSRIs are often effective
You want to screen her for postpartum depression. When should you screen?

- **Screening opportunities**
  - Any routine infant or maternal postpartum visit
  - Special visits scheduled for following up on hx of depression
  - Example
    - First newborn check at 2 or 3 days after d/c
    - 2 weeks postpartum
    - 4-6 weeks postpartum
What method will you use to screen her?

- Postpartum Depression Screening Scale
  - 35-item Likert response scale ("Strongly Disagree" to "Strongly Agree")
  - Third grade reading level
  - Completed by patient in ~10 minutes
What method will you use to screen her?

- Postpartum Depression Screening Scale items address seven areas
  - Sleeping/Eating Disturbances
  - Anxiety/Insecurity
  - Emotional Lability
  - Cognitive Impairment
  - Loss of Self
  - Guilt/Shame
  - Contemplating Harming Oneself
What method will you use to screen her?

- Edinburgh Postnatal Depression Scale
  - 10-item self-report scale ("Yes, most of the time" to "No, not at all")
  - Available in several languages
  - Intended for use at 6-8 weeks postpartum
  - Completed by patient in ~5 minutes
What method will you use to screen her?

- Edinburgh Postnatal Depression Scale addresses symptoms of
  - Inability to laugh
  - Inability to look forward to things with enjoyment
  - Blaming oneself unnecessarily
  - Feeling anxious or worried
  - Feeling scared or panicky
  - Feeling that “things have been getting on top of me”
  - Difficulty sleeping because of unhappiness
  - Feeling sad or miserable
  - Crying
  - Thoughts of harming oneself
What method will you use to screen her?

- **Postpartum Depression Screening Scale**
  - For combined major and minor postpartum depression
    - Sensitivity 91%
    - Specificity 72%

- **Edinburgh Postnatal Depression Scale**
  - For combined major and minor postpartum depression
    - Sensitivity 68-80%
    - Specificity 77%
Your patient...

- Has positive screen for postpartum depression
- Would like to start a medication
- Is concerned due to breastfeeding her baby

What do you advise?
Antidepressants in Lactation

- Sertraline (Zoloft) currently favored SSRI during breastfeeding
  - Short half-life
  - Low or undetectable infant plasma levels
  - More follow-up data on infant development

- Paroxetine (Paxil) and fluvoxamine (Luvox) also show low infant plasma levels

- Use with caution in patients w/ prior good effect:
  - Fluoxetine (Prozac)--long half-life
  - Citalopram (Celexa)--high breast milk concentration
Antidepressants in Lactation

- Omega-3 fatty acids showed significant response rate in one open-label study
- Medication exposure to fetus via placental transfer will almost always be greater than to the newborn via breastfeeding
- Most national guidelines recommend six months of treatment once depression is in remission
Partner has been very involved, attending prenatal and well child check appointments.

Wants to know what he can do to help.

What do you tell him?
How can her partner and family members help?

- Mothers without social support twice as likely to develop postpartum depression
- Among Latina women, those satisfied with marital/partner relationships showed lower risk of depressive sx’s postpartum
- Among high risk women, better social support → quicker improvement in depressive sx’s
- Educate partner about signs of mania/hypomania: can be uncovered w/ use of SSRI. Also educate about the importance of treatment!
Take-home points...

- For SSRI use in pregnancy, PPHN risk is 3-6/1000, vs. 68% recurrence of maternal depression w/ discontinuation
- Neonatal behavioral syndrome is self-limited, but can cause prolonged hospitalization
- Prenatal visits provide multiple opportunities to assess for current depression and risk of developing postpartum depression
Take-home points...

- Assume that every woman of childbearing age will get pregnant
  - Folic acid, whether contracepting or not
  - Contraception, if desired
  - Consider antidepressant and other medication choices in light of possible future pregnancies
Take-home points...

- Screen early and often for postpartum depression
- Document risk/benefit counseling regarding medication use AND discontinuation
- Involve partner and family in treatment plans, as patient permits
mother's day rally for moms' mental health


