Assessment and Treatment of Perinatal Depression

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Objectives

- Describe the effects of maternal depression on fetal and neonatal health
- List diagnostic criteria for MDD
- Describe features specific to Perinatal MDD
- List 2 tools commonly used to screen for Perinatal MDD
- Describe 3 components of treatment for Perinatal MDD
- List resources for patients and providers

Why do we care?

Major Depression

- Women in reproductive age group are at age of typical onset of MDD
- 10-15% of women have depressive symptoms during pregnancy and postpartum
- Many women with depressive symptoms have some negative impact on function as a result

Major Depression

- "Postpartum depression leads to increased costs of medical care, inappropriate medical care, child abuse and neglect, discontinuation of breastfeeding, and family dysfunction and adversely effects early brain development."

Earls. Pediatrics 2010;126:1032-1039.

Depression Risks

Risk to mother:

- worsened depression
- increased risk of postpartum depression and somatic symptoms PP (HA, fatigue)
- possible increased risk SAB

Ansara et al. Journal of Psychosomatic Obstetrics & Gynecology 2005;26(2):115-125.
Qiu et al. BMC Women's Health 2007;7:15.

Depression Risks in Pregnancy

Risk to baby:

- Poor maternal self-care during pregnancy
- Pre-term birth (RR 2.0-2.2)
- Lower birth weight (180-200gms)
- Poor bonding postpartum
- Incr infant neg reactivity (esp >30wks)
- Infant sleep disturbance
- Child anxiety, language delay, ADHD, conduct disorder
- Incr adolescent depressive sx's

Davis et al. J Am Academy of Child and Adolescent Psychiatry 2007;46(6): 737-746.

Hollins. Current Opin Obstet and Gyn, 2007;19:568-572.

Li et al. Human Reproduction 2009;24(1):146-153.

Depression Risks Postpartum

Maternal depression and anxiety linked to:

- Withdrawn mother: fussy baby
- Anxious, intrusive mother: detached baby
- Lower IQ
- Delayed language development
- Poor infant growth and incr diarrheal episodes
- Higher rates of anxiety and depressive sx's, and behavioral problems in toddlers, preadolescents and adults

Edhborg. Arch Women's Mental Health 2003;6(3): 211-6.

Hollins. Current Opinions in Obstetrics and Gynecology 2007;19:568-572.

Rahman et al. Acta Psychiatr Scand 2007;115:481-486.

Weinberg. Pediatrics 1998;102(5):1298-1304.

Depression Risks Postpartum

Remission of maternal depression benefits children:

- 151 mother-child pairs in STAR*D study
- Remission of maternal depression after 3 mos of treatment associated with significant reductions in children's depressive, anxiety and disruptive behavior disorders and symptoms

Weissman, JAMA 2006;295(12):1389-98

Major Depression

- **S**ad mood
- **I**nterest (decreased)
- **G**uilt, hopelessness, worthlessness
- **E**nergy
- **C**oncentration
- **A**ppetite (increased or decreased)
- **P**sychomotor Retardation (what you observe)
- **S**leep (increased or decreased)
- **S**uicidal Ideation

Major Depression: Risk Factors

- Most important = biological
  - Past postpartum depression
  - Depressive symptoms during pregnancy
  - Past major depressive episode
    - Preconception use of antidepressants
      - When stopped immediately prior to pregnancy or in first trimester → 68% recurrence rate in pregnancy
  - Family history of postpartum depression

Cohen, JAMA, 2006;295(5):499-507

Major Depression: Risk Factors

- Other risk factors:
  - Major social/life stressor during pregnancy
  - Lack of social support
  - Infertility
  - Multiples birth
  - Gestational Diabetes Mellitus

Major Depression

- **S**ad mood
- **I**nterest (decreased)
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Perinatal Depression

- Difficult to diagnose because pregnancy and infants cause changes to energy, sleep and appetite
- Focus more on non-psychomotor changes (guilt, worthlessness, lack of motivation)
- Anxious rumination often centered around ability to care for child

Perinatal Depression

- Irritability
- Feeling overwhelmed
- Inadequacy
- Insomnia (“Can you sleep when the baby sleeps?”)

Perinatal Depression

Common statements:

- “I feel so overwhelmed.”
- “I just can’t handle things like I used to.”
- “I’m pumping after every breastfeeding so that I have enough milk.”
- (mother of a 4 week-old) “I feel guilty that I don’t read to him more often.”

Perinatal Depression

- Obsessional thoughts:
  - 60% of women with PPD report fears or images of harm occurring to baby
  - “Many women have thoughts or images pop into their minds of something bad happening to their baby (like dropping him), even if they don’t want to. Has that happened to you?”

Wisner et al. J Clin Psychiatry 1999;60(3):176-80.

Perinatal Depression

- Suicide:
  - Infant or family often protective in early/mild depression
  - Worsened depression will weaken that protection due to feelings of worthlessness as a mother
  - “My baby would be better off without me”

Screening

- Edinburgh Postnatal Depression Scale is the most widely used, but PHQ-9 also common
  - Edinburgh does not include somatic or sleep questions
  - Both are free, on internet, in multiple languages

Screening: Obstetric Providers

- There is no current recommendation for universal screening in prenatal care
- ACOG states “strongly consider” perinatal screening

Antepartum Screening

- Ask about mental health history during prenatal care
- Universal screening 1-2 times during pregnancy:
  - at NOB visit and 28 week visit

OR

- EPDS or other tool for women with risk factors

Postpartum Screening

- In hospital prior to discharge
  - if elevated score or high risk, schedule f/u visit in 2 weeks
- At postpartum visit
- At well-child checks

Screening: Pediatric Providers

- AAP states “surveillance and screening for perinatal/postpartum depression is part of family-centered well-child care.”
- PP screening at 1, 2, 4 and 6 month well-child checks
- CPT code 99420 recommended for this screening (Edinburgh to be used as measure of risk in infant’s environment)

Earls. Pediatrics 2010;126:1032-1039.

Treatment

- Psychological: therapy (individual or group)
- Biological: medication, exercise, sunlight
- Social: support from family, friends; help with infant/children; psychoeducation (demystification)

Psychological

All women with perinatal depression or anxiety symptoms should be engaged in psychotherapy.

Psychological

- 10-15% of women with depressive symptoms
  - Includes 5-8% of women meeting criteria for MDD
  - The rest have a few symptoms of MDD but not at criteria
  - Even a few symptoms can cause dysfunction, especially during a time of such high stress as the postpartum

Psychological

- Individual therapy very effective for mild-moderate MDD
- Important adjunct with medication for severe MDD

Psychological

- Support groups also very important for women, especially those with mild-moderate MDD, or subclinical depression
  - Postpartum Health Alliance maintains list of support groups in San Diego region, many free

Psychological

- Treatment and support of mother-infant dyad, or family unit, can be important component
  - Public Health Nurse
  - Early Intervention programs
  - Therapists with expertise in early childhood development
- Children of depressed mothers may need closer follow-up for social/developmental evaluation

Earls. Pediatrics 2010;126:1032-1039.

Biological

- Exercise: as much as tolerated (even walking 20 minutes daily)
- Sunlight: 20-30 minutes daily without sunglasses outside, morning preferable
- “Behavior modification”: familydoctor.org PPD Action Plan

www.familydoctor.org

Postpartum Depression Action Plan

Depression Self-Care Action Plan

Patient_____

Physician/NP/PA _____

Clinic_____

Phone Number_____

Depression is treatable!

Choose one area and add others areas as you begin to feel better.

1. Stay active
   - Make time every day to do some physical activity such as walking for 10 or 20 minutes or dancing to a favorite song

Every day during the next week I will spend at least _____ minutes doing
_____

2. Do something that you think is fun each day
   - Even though you may need to work a little more at having fun, try doing something that has always been fun such as a hobby or listening to music or watching a favorite video or TV show.

Every day during the next week I will spend at least _____ minutes doing
_____

3. Spend time with people who help or support you
   - When you are feeling down it is easy to avoid people but you should not be alone all the time. Choose people who you can talk to or who can do your activities with you. Talk to them about how you feel. If you can't talk about it, that's okay.

During the week I will make contact for at least _____ minutes with
_____(name), doing or talking about_____
_____(name), doing or talking about_____

4. Relaxing
   - For many people with depression, it is hard to stop feeling sad or having unhappy thoughts. Physical activity can help and so can learning to relax. Things like slow deep breathing, saying comforting quiet things to yourself, taking a warm bath or sitting and concentrating on relaxing one leg and one arm at a time can help.

Every day during the next week I will practice relaxing at least ____ times for at least ____ minutes each time.

5. Set simple goals
   - Do not expect too much too soon. Do simple things like reading only a few pages of a magazine or make one bed or fix a cup of tea or cocoa. Delay big decisions until you are feeling better. Give yourself credit for each thing you do and break work into small steps.

What I want to do is _____
_____
Step 1; _____
Step 2:_____

How likely are you to do the above things during the next week?

Very likely **Maybe** **Unsure** **Not very likely**

Adapted from Ted Amann, RN C..

Social

- Engaging family or friends to help with action plan goals
- Psychoeducation for patient and support system (usually a key component of therapy)
- If early in postpartum, asking partner/family to cover night feedings to help patient with sleep restoration

Biological

The role of pharmacologic management is to minimize fetal and neonatal exposure to both medication and maternal mental illness.

Key Points

Do not experiment:

If a patient has responded to a medication in the past, use that medication again.

Exceptions: some anticonvulsants (valproic acid/depakote and carbamazepine/tegretol) in pregnancy, lithium in breastfeeding

Key Points

- Prior to starting an antidepressant, need to screen for history of manic episode:
- “Have you ever had a time period when had too much energy and you didn’t need to sleep very much for several days in a row?”
- If “yes” then patient needs further evaluation for bipolar disorder.

SSRI Medications

- Most commonly used 2/2 efficacy and cost
- Back to Key Point: use what has worked in past!
  - Citalopram (Celexa)
  - Escitalopram (Lexapro)
  - Fluoxetine (Prozac)
  - Paroxetine (Paxil)
  - Sertraline (Zoloft)

SSRI Medications

Pregnancy concerns:

- First trimester:
  - Toxicity/spontaneous abortion
  - Birth defects
- Second and third trimester:
  - Neurobehavioral changes
  - Growth effects
  - Delivery timing
  - Neonatal syndromes

Toxicity

- No clear risk of spontaneous abortion

Birth Defects

- Birth defect rate in US: 3-5%
- Paxil: Category D
  - Controversial, possibly increased risk of cardiac malformation (septal defect) with first trimester exposure
  - Best studies have NOT shown increased risk

Berard. Birth Defects Research (Part B) 2007;80:18-27.
Einarson. Am J Psychiatry 2008;165:749-752.
Kallen et al. Reproductive Toxicology 2006;21:221-222.
Kallen et al. Birth Defects Research (Part A) 2007;79:301-308.
O'Brien et al. J Obstet Gynaecol Can 2008;30(8):696-701.

Neurobehavioral Development

- No known risk
- 10 studies with normal development following in utero exposure to SSRI's or TCA's

Casper et al. J Pediatrics 2003;142(4):402-8.
Nulman et al. N Engl J Med 1997;336:258-62.
Nulman et al. Am J Psychiatry 2002;159:1889-1895.
Oberlander et al. Archives of Ped Adolesc Med 2007;161(1):22-29.

Growth Effects

- No known risk

Delivery Timing

- 11 studies: 5 negative, 6 positive
- Best-designed study:
  - compared euthymic women on SSRI's to depressed women not on medication
  - same 20% pre-term delivery rate
- Major Depression: consistent 20-25% pre-term delivery rate

Wisner et al. Am J Psychiatry 2009 May;166(5):557-66.

Neonatal Syndromes

- Neonatal abstinence syndrome: 30%
  - With ?2nd or 3rd trimester exposure
  - Jitteriness, irritability, difficulty with feeding
  - One long-term study: no developmental effect
  - Does not typically require NICU admission
  - One study showed no difference in NAS rates with stopping medication 2 weeks prior to delivery (retrospective registry study)

Misri et al. AJP 2006; 163(3): 1026-32.

Moses-Kolko et al,JAMA 2005;293:2372-2383.

Way. Pharmacotherapy 2007, 27(4): 546-552.

Warburton et al. Acta Psychiatrica Scand 2010; 121(6): 471-479.

Wisner, APA 2008, unpublished ADUP data.

Neonatal Syndromes

- Persistent Pulmonary Hypertension of the Newborn
  - Can be severe, with 10% mortality
  - Requires NICU admission and long-term care
  - Baseline rate 1-2/1000
  - Absolute risk controversial, with 4 studies showing different risks, probably 4-6/1000
  - Third trimester exposure

Andrade et al. Pharmacoepidemiology and Drug Safety 2009; 18: 246-252.
Chambers et al. NEJM, 2006, 354(6): 579-87.
Kallen et al. Pharmacoepidemiology and Drug Safety 2008; 17: 801-806.

Common Question #1

"I'm doing great now. Should I continue my antidepressant medication during pregnancy?"

The best answer is a long one…..

	Risk	Benefit
Treatment	■PPHN (4-6/1000) ■Poor neonatal adaptation (30%) ■Preterm birth (12.7%->20%)	■Improved mood ■Better function: relationships, work, self-care ■?Decr risk PPD
No Treatment	■ Lower birth weight ■ Preterm birth (20-25%) ■↑ Risk preeclampsia ■↑ Risk PPD ■Poor PP bonding ■Childhood anxiety, behavioral problems, depression, lower IQ	■No risk from meds

Common Question #1a

- "What is the risk of depressive relapse if I stop my medication?"

- Naturalistic, prospective study 200 women
  - 3 mos euthymic prior to LMP
  - 68% relapse rate with stopping in first trimester
  - 21% relapse rate for those who continued

Cohen. JAMA 2006;295(5):499-507.

Common Question #2

"Should I stop my medication before delivery?"

- Single study on NAS does not support
- PPHN too uncommon to study prospectively
- Theoretical and anecdotal increased risk of postpartum relapse with medication out of mom's system at high-risk time
- Not advised by reproductive psychiatrists

Warburton et al. Acta Psychiatrica Scand 2010;121(6):471-479.

Common Question #3

- "What medication should I use if I'm postpartum?"
  - Back to key points: do not experiment
    - If previous use with good response, restart that one
    - If taking during pregnancy, do not change postpartum
  - If no previous use, ask: is the patient breastfeeding?

Breastfeeding

- What makes a “perfect” medication for breastfeeding?
  - No penetrance into the breastmilk
  - Levels undetectable in infant serum
  - No adverse events reported in breastfed infants
- Does that exist?
  - No
  - Sertraline and paroxetine are pretty close

Common Question #4

- “There’s no way I’m taking medication during pregnancy or while breastfeeding.”
- “What can I do instead?”

Common Question #4

- Therapy, therapy, therapy!
  - Even if the patient is euthymic, a good relationship with a therapist can help recognize early signs of a relapse and prevent it from worsening.
- Exercise
- Sunlight exposure
- Consider rTMS ($$$), sleep deprivation study (Dr. Barbara Parry at UCSD)

Common Question #4

- Even if a woman is no longer on a medication during pregnancy and postpartum, she should remain in contact with her psychiatrist (as an infrequent supplement to therapy)

Sleep

- Insomnia can be one of the most debilitating symptoms of perinatal depression
- Important to differentiate between normal waking and pathologic
  - Pregnancy: “When you wake up at night because of physical symptoms (need to urinate, uncomfortable), are you able to fall back asleep easily? If not, what keeps you awake?”
  - Postpartum: “Can you sleep when the baby is sleeping at night?”

Sleep

- Antepartum:
  - Sleep hygiene
  - Use of sleep aid to improve sleep
- Postpartum:
  - Involvement of partner to cover night feedings
  - Use of formula does not mean failure as a mother
  - Use of sleep aid if necessary

Treatment of Insomnia

- Benadryl: Class B, “probably safe” in lactation
  - Can decrease milk supply
- Trazodone: no incr risk congenital malformations (58 with first trimester exposure)
  - breastfeeding: 0.64% of maternal dose received by neonate (6 cases), “probably safe”
- Ambien: 1 unpublished study, 44 women with variable length exposure, no significant differences in OB or neonatal outcome (many OB/gyns using)
  - Concern with use in women who need to wake in middle of night 2/2 amnestic syndrome

Emarson, Can J Psychiatry, 2003; 48(2): 106-110

Juric S, Newport [illegible] Stowe Z, APA 2008 Poster, unpublished prelim data

Treatment of Insomnia

- Benzodiazepines: no incr risk congenital malformations (include cleft palate)
  - Clonazepam and lorazepam preferred over diazepam and alprazolam
  - At delivery: incr risk low neonatal Apgar scores, respiratory distress, hypotonia, neonatal withdrawal with *chronic, consistent use*
  - Use low doses (ativan first, then clonazepam) and with caution in breastfeeding (neonatal sedation)

Dolovich, BMJ 1998; 317(7162):839-43

Resources

Treatment:

- Postpartum Health Alliance
  - non-profit San Diego organization; posters to be placed in clinic waiting rooms

Medication:

- California Teratogen Information Service
  - Ctispregnancy.org; toll-free or web-based support for mothers and providers
- LactMed
  - Medications in breastfeeding

Resources

General Information and Patient Handouts:

- ftp.hrsa.gov/mchb/pregnancyandbeyond/depression.pdf (excellent booklet)
- Familydoctor.org (short handout)
- Postpartum.net

Help with implementing screening:

- Parental Depression Screening for Pediatric Clinicians: An Implementation Manual (cmwf.org)

Summary

- Major depression and depressive symptoms can have a significant negative impact on mothers, children and families.
- Treatment should include psychological, biological and social components.
- Women are not regularly screened at prenatal visits, and pediatric well-child checks may be an important way to catch women who need treatment.
- Resources are available for treatment.

Questions?

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Postpartum Health Alliance

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