

# Indiana Perinatal Depression CONSENSUS

APRIL 2005

## POSITION

The purpose of this statement is to alert and inform all healthcare providers and consumers about the incidence and significance of depression and other mood disorders that women can experience during and after pregnancy which affect the newborn, the immediate family and the community. Therefore, when women experience depression and other mood disorders during pregnancy or in the postpartum period, healthcare providers can utilize resources for the identification of presenting signs and symptoms, screening, referrals and interventions.

## MISSION

Every woman who becomes pregnant needs the support of her family and community during and after pregnancy to assure that her baby is born healthy and into a safe and nurturing home. The Indiana Perinatal Network's goal is to alert and inform all health care providers and consumers about the significance of depression during and after pregnancy and the effect of depression and other mood disorders on the mother, the newborn, the family and community.

## OVERVIEW

Women can experience varying emotions during the childbearing years and after an adoption. They might be depressed when they become pregnant, during pregnancy and/or after delivery. Research on depression during the childbearing year indicates that more than one in 10 women will experience various degrees of Postpartum Depression (PPD), with an incidence in the United States ranging from eight to 26 percent<sup>9,25</sup> and an overall prevalence rate of 13 percent.<sup>2,13,76</sup> International research on PPD reveals similar statistics—suggesting that this mood disorder is a universal experience.<sup>6,24,28,40,46,56,58,69,72,84</sup> The rate of depression during the first trimester is comparable to the overall rate of depression (seven to nine percent) in women in the general population, with rates nearly double during the second and third trimester of pregnancy. Women who have a prior history of depression and have experienced a fetal loss are twice as likely to develop PPD after delivering a live birth.<sup>67</sup> Depending upon the population group, prenatal and postnatal depression are linked between 18 to 75 percent of the time.<sup>64</sup>

Pregnant women need to be screened for signs and symptoms of depression during and after pregnancy so early identification and prompt intervention can be offered.<sup>2,11,27,76</sup> Standards used for diagnosing a major depressive episode can be gleaned from the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorder (DSM-IV-TR)*<sup>4</sup> and include a period of at least two weeks of depressed mood or loss of interest in almost all activities and at least four of these symptoms: changes in appetite or weight, sleep, and psychomotor activity; decreased energy; feelings of worthlessness or guilt; difficulty thinking, concentrating, or making decisions; and recurrent thoughts of death or suicidal ideation, plans, or attempts.<sup>2,4,13</sup>

Postpartum depression can occur within days to one year after giving birth—but usually occurs within the first three months.<sup>1,2,76</sup> Women with a previous history of depression have up to a 50 percent risk of developing postpartum depression<sup>13,50,76</sup> and should be counseled before conception that they are at risk for recurrent depression during pregnancy and the postpartum period.<sup>2</sup> Health care professionals, including obstetricians, family physicians, pediatricians, nurse midwives, nurses, home visitors, social workers and others, need to be educated to the risk factors for developing depression, the signs and symptoms of depression, how to screen for depression and the need for early intervention and treatment. The American College of Obstetrics and Gynecology (ACOG) believes that all women should be considered at risk for postpartum depression and that all postpartum women should be screened.<sup>2</sup>

## RISK FACTORS

Psychosocial risk factors associated with postpartum depression include: previous episodes of depression/mood disorders; significant loss or life stress in the last year; an unplanned/unwanted pregnancy; prior fetal loss (miscarriage); unexpected birth outcomes; child care stress; marital conflict; low social support; fatigue; genetic predisposition; and an infant with health problems.<sup>2,13,48,52,67,76</sup> Studies performed internationally support the previously listed risk factors as precipitating PPD, but two additional factors were identified. First, women in some cultures or societies who give birth to female infants are at greater risk for developing PPD than their counterparts who give birth to male infants.<sup>57</sup> Second, women of lower socioeconomic status have a greater rate of depression than women of higher socioeconomic status.<sup>23</sup> Thus, women's economic well-being directly affects their psychological well-being, i.e. increasing the economic well-being of women living in poverty benefits women's mental health, especially during the first three years after childbirth.<sup>38</sup> This is an important factor for legislators to consider when making cuts that directly impact the single-parent household traditionally headed by females.

Recent epidemiological research on postpartum depression has examined several biological risk factors: decline in gonadal steroid hormones; genetic factors; reduced anti-inflammatory capacity; lowered serum cholesterol; and elevated neurotransmitter systems.<sup>2,52,76</sup> Women treated for infertility are also at an increased risk for mood instability.<sup>76</sup> The typical medications used for infertility—Clomid, Pergonal, and Metrodin—are associated with producing severe depression and unstable moods.<sup>76</sup> In summary, patients presenting in the clinic or hospital during or after pregnancy who indicate either psychosocial or biological risk factors can experience one or several negative outcomes (i.e. problems in developing a maternal-infant relationship, suicide, or infanticide). Prenatal depression necessitates careful monitoring to ensure a healthy outcome for both the mother and fetus, as studies demonstrate that untreated and unmonitored depression in pregnant women may lead to premature labor and delivery.<sup>2,76</sup> For that reason, all patients should be screened for prenatal and postpartum depression to ensure a healthy outcome for both the mother and fetus.<sup>76</sup>

## SYMPTOMS

The symptoms of PPD are insidious and can occur anytime up to a year after birth.<sup>12,60,62</sup> Due to the stigma attached to depression after the birth of a child, most women suffer in silence and consequently 50 percent of all cases go undetected.<sup>18,19,76</sup> The duration of PPD is associated with the time at which it is first identified and treated, with an average time of six to nine months.<sup>14,18,19</sup> However, these women are at greater risk for developing depression symptoms in the future.<sup>2,73</sup> The eight predictive variables—namely, prenatal depression, history of previous depression, social support, life stress, child care stress, maternity blues, marital satisfaction and prenatal anxiety<sup>10</sup>—should be addressed prenatally and in the postpartum period by health care providers to reduce depression during pregnancy and postpartum. In the postpartum period, mothers should be assessed for their sleeping patterns, weight loss/gain, sexual satisfaction, perceptions of their relationship with the baby, ability to care for the baby and feelings of hopelessness.<sup>2,76</sup> Sleep disturbance during this vulnerable period is defined as the inability to sleep even when the infant is sleeping and/or when others have offered assistance to care for the infant.<sup>67</sup>

The need for routine screening of mothers for depression is a critical first step for health care providers to incorporate into their clinical practice so that appropriate referrals, interventions and treatment can be offered and initiated. At a time when maternal role attainment is critical to the infant's growth, development and social interaction, postpartum depression can limit a mother's capacity to care for her newborn through the "nonaffective symptoms" of depression that include withdrawal, passiveness, intrusiveness and self-preoccupation.<sup>5</sup> Women with PPD can have ego-dystonic thoughts of harming their infants—which means thoughts that are distinctly inconsistent with what the person essentially wants or believes. These thoughts are obsessional in nature, but rarely acted upon unless psychosis is present.<sup>67</sup> The negative impact of postpartum depression on the cognitive, emotional, behavioral and social development of children can have long-lasting effects.<sup>55,67</sup> Early identification of women who are at-risk for developing PPD is critical for minimizing the potential untoward effects on the mother-infant relationship, on children and on families since the duration rather than the severity of depression strongly influences infant temperament.<sup>41</sup>

Depressed mothers can physically appear to have no symptoms of depression. However, their parenting style, affect and interactions with the baby can reveal their emotional struggles.<sup>27,31,41,75</sup>

## SYMPTOMS (con't)

Mother-baby dyads should be assessed for signs and symptoms of depression whenever they are in the health care system. Depressed mothers typically have negative emotional expressions and display an insensitive and unresponsive parenting style.<sup>31,41,75</sup> Women can appear to be smiling and not depressed, as well as appear to be bonded with their baby and still have PPD. Particularly troubling signs and symptoms are mothers who feel disconnected from their infants, perceive that they are "bad" or inadequate as mothers and have thoughts of harming their infants. Infants may appear passive or avoidant (i.e. little eye contact with their mother or caregiver), which mirrors the mother's negative mood at home. This can be displayed in feeding difficulties, frequent illness, and babies showing passive or avoidant behaviors. Additional research demonstrates that PPD can cause a strained relationship between the mother and her partner,<sup>12,65,79</sup> impaired patterns of relating/communicating between the woman and her family<sup>13,31,60</sup> and negative cognitive, emotional, behavioral and social development in children.<sup>12,2,31,48,60,65</sup> Paternal depression is another area of research that is being explored, with evidence indicating co-occurrence of depression in couples,<sup>45</sup> signaling to health care providers that this may be more than just the mother's illness and that it also has a negative effect on the father or family.

## DEFINITIONS

Postpartum depression (PPD) is one of several mood disorders associated with the postpartum period and is considered a nonpsychotic depressive episode.<sup>13,14,33,52,60,67</sup> PPD has a pattern of symptoms and is distinguishable from the other four classified postpartum mood disorders: postpartum onset of panic disorder; postpartum obsessive-compulsive disorder; postpartum psychosis,<sup>2,11,13,62,76,79</sup> and, more recently, posttraumatic stress disorder (PTSD).<sup>27,42,54,66,74,77</sup> These four unique mood disorders have newly emerged in the research and are defined as follows.

- *Postpartum obsessive compulsive disorder* (OCD) does not have reported prevalence rates and can present with the following clinical characteristics: repetitive and intrusive thoughts of harming the baby, fear of being left alone with the infant, and hypervigilance in protecting the infant.<sup>13,14</sup> OCD appears to be a recurrent condition, and therefore at-risk women who have subsequent pregnancies should be treated promptly after delivery.<sup>2,76</sup>
- *Postpartum onset anxiety/panic disorder* can be present during pregnancy<sup>76</sup> and in the early postpartum period, though prevalence rates have not been reported.<sup>13</sup> Its symptoms include acute onset of anxiety, fear, rapid breathing, palpitations and a sense of doom.<sup>2,13,76</sup> Women who have a history of anxiety/panic disorder prior to pregnancy are at an increased risk for developing postpartum depression.<sup>76</sup> Early identification and treatment of anxiety may prevent untoward effects. Any woman with a history of anxiety/panic attacks in pre-pregnancy warrants medical investigation to prevent problems during pregnancy to the mother and/or fetus.<sup>2,76</sup>
- *Postpartum psychosis* is rare—occurring in one to three of 1,000 births.<sup>13,76</sup> The onset of the disorder is sudden—usually within the first several days of birth, with presenting symptoms of hallucinations, delusions, agitation, inability to sleep, and bizarre and irrational behavior.<sup>2,13,76</sup> Factors associated with postpartum psychosis include family or personal histories of mood-swing disorders, depression and/or alcoholism.<sup>2,50,67,76</sup> Higher rates of postpartum mania, delirium, and psychosis are associated in women with postpartum thyroiditis, hypothyroidism, adult GM<sub>2</sub> gangliosidosis, as well as with vitamin B12 deficiency.<sup>2,50,67</sup> Postpartum psychosis poses a physical threat to the baby, and women who are depressed can be a threat to themselves due to suicidal ideation, intent or attempts. Women with postpartum psychosis are more likely to harm their infants than women with nonpsychotic PPD.<sup>67</sup> Postpartum psychosis can be predicted in those women who carry risk factors, such as past histories of mood swings, premenstrual symptoms and life-stress events.<sup>76</sup> Additionally, women with these psychiatric histories are at risk: major depression with psychotic features; bipolar disorder; schizoaffective disorder; schizophrenia; schizophreniform disorder; and brief reactive psychosis.<sup>67</sup> Further, women with substance abuse or addiction to LSD, PCP and Ecstasy are at risk.<sup>67</sup> Prompt treatment after delivery to prevent psychosis in women with mood swing illness can include Lithium or Depakote immediately after delivery of the placenta.<sup>76</sup>
- *Posttraumatic stress disorder* is the development of characteristic symptoms (DSM-IV-TR)<sup>4</sup> following exposure to an extreme traumatic stressor from personally experiencing an

event that involves threatened death or serious injury; witnessing such threats or occurrences to the physical integrity of another person; or learning about unexpected, actual, or threatened harm associated with a family member or other close associate (Criterion A1). Additionally, an individual's reaction should include intense fear, helplessness or horror (Criterion A2). Characteristic symptoms include persistent re-experiencing of the traumatic event (Criterion B), persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (Criterion C) and persistent symptoms of increased arousal (Criterion D). All of the above symptoms must be present for more than one month (Criterion E) resulting in impaired functioning of daily living (Criterion F). Diagnostic criteria exist in the APA manual for more detailed information regarding each of these criteria. Symptoms are usually evident within the first three months after the trauma (considered *Acute PTSD*), although longer time frames are not uncommon (*Chronic PTSD*).<sup>4</sup>

Possible predictors for developing PTSD after childbirth include one or a combination of any of the following characteristics: 1) past sexual trauma; 2) women's expectations and experiences about pain; 3) feelings of powerlessness; and 4) obstetric intervention and traumatic delivery.<sup>42,54,66,74,77</sup> It is therefore important for the health care provider to be sensitive to the impact these four characteristics may have on a woman's birthing experience. Taking a careful history to determine previous traumatic experiences is imperative to help avoid a traumatic birthing experience. The history should include information about past sexual trauma, past birthing experiences and issues about pain management and patient participation.

The incidence of posttraumatic stress disorder resulting from a traumatic childbirth experience varies—ranging from 0.2 percent<sup>74</sup> to six percent.<sup>66</sup> These percentages are representative of women who reported experiencing all symptoms of PTSD. When some of the symptoms are reported, the percentages increased by 24 percent, regardless of trauma.<sup>77</sup> A prospective study found that 2.8 percent of women met criteria for PTSD at six weeks postpartum, and 1.5 percent at six months post delivery.<sup>8</sup> Accordingly, the decrease between six weeks and six months postpartum is consistent with other research findings, and after six months the disorder becomes chronic and requires further treatment.<sup>8</sup> Nonetheless, prevalence rates may be much higher because of under-reporting and under-identification of symptoms. Further, confusion of PTSD with postpartum depression often occurs, which not only confounds the significance of this disorder but may result in patients being treated for the wrong illness.<sup>8</sup>

Evidence is also mounting on the detrimental effects of posttraumatic stress disorder on the individual, significant other, infant and future pregnancies. Clinical experience with six women who had experienced PTSD demonstrated that these women had problems with breastfeeding, bonding with their infant, resuming sexual activity and feelings of decreased self-worth.<sup>74</sup> Other researchers report similar effects with PTSD that include impaired mother/infant attachment;<sup>9,16</sup> developmental or behavioral problems in children;<sup>8</sup> psychosexual disorders resulting from fear of another pregnancy;<sup>17,42</sup> and generally feeling cheated, experiencing low self-esteem, and having flashbacks and panic attacks.<sup>17,59</sup> Rising numbers of women are requesting *scheduled* cesarean section as a means of avoiding a traumatic or painful experience.<sup>54,59,74</sup>

In contrast to the above mood disorders, it is important to distinguish PPD from the more common experience of "*Baby Blues*" that typically occurs during the first three days after birth, can last up to two to three weeks, and has become known as the "third-day blues."<sup>76</sup> This temporary experience of mild depression is considered hormonally-related and approximately 50 to 80 percent of women<sup>2,47,53,60,67,76,79</sup> report having had some or all of the labile symptoms: bouts of crying for no specific reason, impatience, irritability, restlessness, and anxiety.<sup>2,11,53,60,62,67,76</sup> These symptoms usually disappear, but some women who experience the Baby Blues are at risk for developing postpartum depression.<sup>11,12,33,50,67,76,79,83</sup> Women experiencing this form of depression rarely pose any significant physical threat to themselves or to their babies.

In view of the fact that it is easy for health care providers to miss PPD, a screening process should be in place both during the prenatal period and after delivery so that the affective signs of this disorder can be treated. Given that mothers take their babies in for frequent follow-up visits during the first year of the infant's life (i.e. immunizations and well-checks), experts are advocating that primary care clinicians such as pediatricians and family physicians also screen women for PPD.<sup>71</sup> A simple two-question screener (e.g. "During the past month, have you often been bothered by feeling down, depressed, or hopeless?" or "During the past month, have you often been bothered by having little interest or pleasure in doing things?"), endorsed by the U.S. Preventive Task Force, could be used in those practice settings where time is a factor. Otherwise, the Edinburgh Postnatal Depression Scale (EPDS) and other screening tools could be used at each well-child visit. After the pediatrician determines the severity of depression, appropriate referral and follow-up can be initiated.<sup>29,32,71,82</sup>

Screening tools developed for PPD include the Edinburgh Postnatal Depression Scale,<sup>13,20,33,43,49,74</sup> the Postpartum Depression Screening Scale,<sup>18,20,21,30,34,49</sup> the Center for Epidemiologic Studies–Depression (CES-D) scale,<sup>73</sup> and the Antenatal Psychosocial Health Assessment Tool (ALPHA).<sup>68</sup> The first two tools are self-report questionnaires and can be administered during the postpartum period. The last two tools can be used antenatally. Tools are evaluated according to *specificity*, or the correct identification of non-depressed women who are screened; *sensitivity*, or the correct identification of all screened women who have PPD; and *positive predictive value*, or the percentage of women screened positive who actually are depressed.<sup>20</sup>

Until recently, the **Edinburgh Postnatal Depression Scale (EPDS)** was the only instrument designed specifically to screen for postpartum depression. This tool contains 10 short statements of common depressive symptoms and uses a Likert-type scale for responses, where the mother chooses the response that best matches how she has felt in the past week. In uncertain cases, it may be useful to re-administer the scale two weeks later.<sup>34,49,76</sup> The scale does not identify those women who may be experiencing anxiety neuroses, phobias, or personality disorders.<sup>76</sup> The EPDS for women with major postpartum depression has a specificity of 99 percent, a sensitivity of 78 percent, and a positive predictive value of 93 percent.<sup>20</sup>

The **Postpartum Depression Screening Scale (PDSS)** developed by Beck and Gable in 2002<sup>21</sup> and available through the Western Psychological Services is also a Likert-type self-report scale with 35 items that assess postpartum depression and ask women to rate how they have felt during the prior two weeks.<sup>19,49</sup> The PDSS has a specificity of 98 percent, a sensitivity of 94 percent, and a positive predictive value of 90 percent.<sup>20</sup> This tool is designed to assess the presence, severity and type of PPD symptoms. It consists of seven symptom areas: sleeping/eating disturbances, anxiety/insecurity, emotional lability, mental confusion, loss of self, guilt/shame, and suicidal thoughts.<sup>21</sup> When time is limited, the first seven of the 35 items function as a short form that can be completed in two minutes, with item number seven being sensitive to suicidal thinking.<sup>21</sup> If the score on either the short or the long form is within normal limits, recommendations are to administer either of the two forms every three months during the first year postpartum.<sup>21</sup>

Since the Postpartum Depression Screening Scale (PDSS) cannot be used in the prenatal period to screen for postpartum depression, the Center for Epidemiologic Studies–Depression (CES-D) scale is recommended for this purpose. This scale was developed specifically to identify depression in the general population and contains 20 items to assess symptoms experienced during the prior week.<sup>73</sup> A score of 16 or above indicates depression.<sup>73</sup>

More recently, the **Antenatal Psychosocial Health Assessment Tool (ALPHA)**, developed by Canadian researchers to assess psychosocial risk factors *during* pregnancy, can be used as a means to decrease adverse outcomes affecting women and children during the postpartum period, including PPD. The ALPHA is a self-report tool with 45 questions that have either a five-point rating scale or are open-ended. It takes approximately 20 minutes to complete. Validity and reliability studies for ALPHA are currently being conducted. ALPHA is endorsed by the Canadian Pediatric Society, the Canadian Psychiatric Association, the College of Family Physicians of Canada, the Ontario Medical Association, the Royal College of Physicians and Surgeons of Canada, and the Society of Obstetricians and Gynecologists of Canada. The tool is highly recommended for use by public health nurses and home visitors (Healthy Babies, Healthy Children Project) in the assessment of all primiparous women and all high-risk multiparous women.<sup>67</sup> The form is available by e-mailing the author at [deana.midmer@utoronto.ca](mailto:deana.midmer@utoronto.ca)

## SCREENING (con't)

Postnatal Posttraumatic Stress Disorder Screening tools include questionnaires, such as the Impact of Event Scale (IES) or the Revised Impact of Event Scale (Revised-IES). These scales measure symptoms of avoidance and intrusion and symptoms of arousal, respectively.<sup>7</sup> Separate scores are provided for each set of symptoms, with cut-offs for moderate and severe traumatic stress responses. Recommended screening should be performed one-month post-delivery, given the above criterion for duration of symptoms. Waiting three months is not recommended, due to the decrease in recovery rate after this period of time.<sup>7</sup> Other screening tools that can be used to assess postnatal PTSD, but are still being investigated for specificity and sensitivity, include the PTSD Diagnostic Scale (PDS) and the Traumatic Event Scale (TES).<sup>7</sup>

After the woman is screened for PPD and identified as having a mood disorder, treatment can commence. Research indicates that some women need only counseling, others medication and still others need the combination of both. Depending on the severity of the mood disorder, treatment can include 1) postpartum support or parenting groups for those not severely depressed; 2) medications used to treat symptoms of depression and feelings of anxiety; 3) counseling/interpersonal psychotherapy,<sup>70,78</sup> 4) group psychotherapy; and 5) hospitalization, when there is intent to harm oneself or the baby.<sup>2,13,51,76</sup> One recommendation is that providers incorporate a culturally competent "bundled" approach in improving women's perinatal functioning and interaction with their infants.<sup>36</sup> This approach integrates behavioral treatment for depression, social support-building to decrease stress and to improve self-worth, and a psychoeducational component on child development to augment parenting skills.<sup>36</sup> *Prevention* of postpartum depression through interpersonal psychotherapeutic treatment is showing promise, although more research is needed.<sup>81,85</sup>

## TREATMENT

### CATEGORIES OF PREVENTATIVE TREATMENT

Treatment specific to PTSD can be categorized into *primary, secondary, and tertiary*. *Primary prevention* begins prenatally, with careful history taking and questions about women's prior birth experiences of trauma or psychological problems. At this stage, it is critical to examine birthing alternatives and make explicit notations in the prenatal record to alert intrapartum caregivers on the woman's prior experience and future birthing expectations.<sup>7,8,9,16,17</sup> When obstetric events fall short of the woman's expectations, it is imperative that the obstetric team address this during the course of the woman's hospitalization. Symptoms of PTSD during the immediate postpartum period, which should forewarn the clinician, include a dazed appearance, withdrawal or temporary amnesia.<sup>16</sup> *Secondary prevention* includes screening women postdelivery for PTSD and providing appropriate treatment.<sup>7,8,9,16,17</sup> *Tertiary prevention* includes long term follow-up so that treatment is delivered to those women, along with their families, who have developed chronic PTSD.<sup>7,8</sup> Cognitive-behavioral therapy (CBT) in combination with pharmacotherapy, such as treatment with Selective Serotonin Reuptake Inhibitors (SSRIs), has proven helpful for both secondary and tertiary interventions. The use of debriefing, i.e. encouraging individuals to talk about their trauma to promote emotional processing, is under debate as to its efficacy in postnatal samples.<sup>7</sup> For that reason, the prudent route of care is to use CBT interventions.<sup>7</sup> Additional methods of intervention are support groups to help women validate their experiences and to minimize PTSD symptoms,<sup>11,77</sup> eye-movement desensitization and reprogramming (EMDR), image habituation therapy and relaxation with or without biofeedback.<sup>80</sup>

### BIOLOGICAL AND PHARMACOLOGICAL FORMS OF TREATMENT

Other treatments include hormone replacement or (albeit rarely used) electroconvulsive therapies (ECT).<sup>13</sup> The length of treatment is contingent upon time of identification and severity of the depression, but usually lasts six months from the time the patient begins to feel well.<sup>2,13,33,76</sup> A review of biological interventions for *preventing* PPD—namely, antidepressant medication, estrogen and progesterone therapy, thyroid therapy, docosahexanoic (DHA) and calcium supplementation—concluded that no specific biological approach could be strongly recommended for clinical practice without additional research, which should include ethnically and socioeconomically diverse women so that response rates to interventions can be examined.<sup>39</sup>

In tandem with the above forms of treatment, it is essential that all antepartum and postpartum women employ healthy strategies to maintain optimal brain function.<sup>76</sup> One such recommended approach is a "NURSE" brain care program that applies nourishment and needs; understanding; rest and relaxation; spirituality; and exercise.<sup>76</sup>

SSRIs, such as Celexa (Citalopram), Zoloft (Setraline), Paxil (Paroxetine), Luvox (Fluvoxamine) or Prozac (Fluoxetine),<sup>2,76</sup> are recommended as the first line of therapy due to their efficacy in treating depression and relative safety in instances of overdose.<sup>2</sup> The recommended duration for antidepressant medication is at least one year. SSRIs are also the first-line therapy for obsessive-compulsive disorder and panic disorder.<sup>2</sup> As to SSRIs, anomalous studies have raised concerns regarding neurobehavioral teratogenicity that might not be apparent for years after birth, and for which no long-term human data is available. Fluoxetine usage near term may also lead to withdrawal symptoms in the newborn,<sup>26</sup> and has been associated with irritability, sleep disturbance, and poor breastfeeding in some infants.<sup>51</sup>

Tricyclic antidepressants are as effective as SSRIs<sup>2</sup> and include medications such as Norpramin (Desipramine), Aventyl (Nortriptyline), Tofranil (Imipramine), and Elavil (Amitriptyline).<sup>2,76</sup> Tricyclics are lethal in overdose and no more than a one-week supply should be given to suicidal patients.<sup>2</sup> Anti-anxiety agents can be used for a short duration during pregnancy for women with a history of panic attacks.<sup>76</sup> These include medications such as Klonopin (Clonazepam), Ativan (Lorazepam), Xanax (Alprazolam), and Serax (Oxazepam).<sup>76</sup> The latter two are rarely used in pregnancy or used with great caution or a short duration. SSRIs such as Paxil, Prozac, and Zoloft may also be used.

Klonopin medications taken in pregnancy may cause temporary newborn problems, such as breathing difficulties, sleepiness, lethargy or slow sucking<sup>76</sup> and may be associated with heart defects.<sup>26</sup> Atavan may be associated with anal atresia while Serax may be associated with growth retardation, dysmorphic features and central nervous system defects.<sup>26</sup> The possibility exists, although unlikely, that women who take Valium during the first trimester may give birth to a child with a cleft lip or palate.<sup>76</sup> Others suggest a possible association of Valium with heart defects, inguinal hernia and pyloric stenosis.<sup>26</sup> In addition, Valium may be associated with growth retardation, dysmorphic features, and central nervous system defects. There is a possibility of neonatal withdrawal when Valium is used near-term.<sup>26</sup>

It often takes three to four weeks for an antidepressant to take effect.<sup>2,76</sup> Abrupt cessation of serotonin-enhancing medications may cause withdrawal symptoms (known as "serotonin discontinuation syndrome") such as dizziness, paraesthesia, tremor, anxiety, nausea and palpitations.<sup>2</sup> Early treatment has been found to speed up remission, improve maternal-infant problems and reduce insecure infant attachment.<sup>33</sup>

#### **BREASTFEEDING AND ANTIDEPRESSANTS**

For women concerned about breastfeeding while taking antidepressants, the following guidelines are suggested: 1) balance the benefits of breastfeeding with the risks of the medication; 2) use the safest medication available; 3) consider measuring the blood concentration in the nursing infant three weeks after the medication is started; and 4) be familiar with the infant's behavior.<sup>76</sup> Overall, most research on antidepressants and breastfeeding is promising, but more research is needed to determine the long-term effects antidepressants might have on the developing brain.<sup>51</sup> Interpersonal psychotherapy is recommended as a successful alternative to pharmacotherapy, especially for those women who opt to breastfeed.<sup>70</sup> For additional information on medication options, refer to the guidebook, *Medications and Mother's Milk*<sup>46</sup> and to ACOG's *Clinical Update in Women's Health Care: Depression in Women*.<sup>2</sup>

The early experience of mothering can be overwhelming. However, plans should be in place for the assessment of and appropriate interventions for any mother experiencing PPD or other mood disorders to prevent the further difficulties or complications arising from mental health struggles. The key to successful treatment of postpartum depression is early identification and intervention, which can help alleviate long months of suffering for a woman and her family.<sup>13</sup> Mindful of the needs of the mother and the critical role of her significant others, the development of universal antenatal and postpartum depression screening and treatment programs is essential. The roles of the primary care provider and other health care providers are preeminent in fostering a full recovery for the mother. Fathers, family members and friends are also critical in offering support to the mother during the identification, intervention and treatment process.<sup>13,14,62</sup>

### ACOG RECOMMENDATIONS

ACOG recommends that healthcare providers be cognizant about the following key information related to depressive disorders when dealing with the client and/or family:

- Depression is a medical illness based on a chemical imbalance, not a character flaw.
- Depression is common.
- Recovery is the rule—not the exception.
- The aim of treatment is complete symptom remission, not just symptom improvement.
- The risk of recurrence is high—50 percent after one episode, 70 percent after two episodes, and 90 percent after three episodes.<sup>2</sup>

### IPN RECOMMENDATIONS

The following recommendations for preventing Postpartum Depression during the antenatal/postnatal period were developed initially from the many meetings of the Indiana Perinatal Network's Postpartum Depression Committee and recently updated by the Indiana Perinatal Depression Project Committee.

- **Facilitate integration of postpartum depression training** into the curricula of health-related professional schools throughout Indiana to ensure that health professionals are competent in the identification of PPD risk factors, interventions, treatments, and resources. Discuss the definitions, symptoms, and complaints that are associated with postpartum depression: a) postpartum blues, b) postpartum depression, c) obsessive-compulsive disorder, (d) panic disorder, (d) postpartum psychosis, and (e) posttraumatic stress disorder. Discuss the causes/etiology, treatment and prevention, and assessment and screening of PPD. Health care providers should encourage women to discuss any negative feelings they may be experiencing during pregnancy or following childbirth.
- **Request that healthcare providers send a letter of congratulations and informational PPD materials** to patients who are new mothers. This letter should be mailed soon after the mother's last follow-up exam and should inquire as to the woman's physical and mental well-being. All mothers should be encouraged to contact their doctor during the first year following delivery for further medical treatment or for questions related to PPD.
- **Create an ongoing interdisciplinary task force** to monitor and to address PPD awareness, education, diagnosis, and treatment problems specific to Indiana. The task force can propose up-to-date, workable solutions that will reflect the latest research findings and treatment approaches.
- **Disseminate via the web and at conferences** the newly developed IPN comprehensive informational pamphlet, consensus statement and guidelines related to all aspects (symptoms, diagnoses, and treatment) of postpartum depression. These materials should be distributed to OB/Gyn physicians, family practice physicians, pediatricians, and nurse midwives. Materials should also be distributed to all hospitals and birthing centers and to Healthy Families program staff for distribution to all mothers. Contact information to mothers for follow-up care should be included in the materials.
- **Recommend current educational materials on PPD** (symptoms, identification, and treatment) and distribute the materials statewide to all instructors of prenatal classes. The materials should be integrated into childbirth classes for expectant mothers and their partners to view in preparation for parenting.
- **Encourage pediatricians, family physicians, pediatric nurse practitioners, and family practice nurse practitioners** to screen all mothers for PPD at the well-newborn visits throughout the first year of the infant's life. Appropriate PPD materials should be provided to these health care providers for guidance as to what to ask new mothers, what symptoms to look for, and how to make appropriate referrals.
- **Collaborate with hospital emergency department directors and personnel**, through the Indiana Hospital and Health Association, to sensitize attending medical and nursing personnel to the symptoms and behaviors associated with perinatal mood disorders.
- **Collaborate with law enforcement personnel** to establish standard evaluation procedures for women who attempt to harm themselves or to commit suicide, but do not require immediate medical care. This would aid in PPD diagnosis and treatment and allow for necessary intervention to protect children under such women's care.
- **Develop a centralized referral list** of Indiana mental health professionals who are experts in the field of perinatal mood disorders. The list should be distributed widely to OB/Gyns, family practice physicians, nurse midwives, pediatricians, nurse practitioners, emergency

## CONCLUSION & RECOMMENDATIONS

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room workers, law enforcement personnel, and religious and secular counseling services, so that appropriate and timely recommendations can be given to women experiencing PPD.

- **Develop and distribute a list of PPD support groups** in the state. Women experiencing PPD should be encouraged by health care providers to join these groups so that they can share their experiences, voice fears and concerns, and learn about the experiences of other new mothers who suffer from PPD.
- **Develop basic PPD training sessions** for personnel—e.g. Visiting Nurses Association, doulas, Healthy Families of Indiana, and State Certified Care Coordinators—who are involved in home-based visits. These groups have direct contact with mothers and provide invaluable support and care. This PPD training can serve as a means for early intervention, identification and referrals of those mothers experiencing this disorder.
- **Regularly update IPN's website specific to PPD** to include (but not limited to) 1) PPD signs and symptoms, behaviors and reactions (and differentiation from the "baby blues"); 2) referrals and support groups; 3) a phone number for anonymous help; and 4) other website links to additional resources.
- **Continue to apply for available grants** from the federal government, private foundations, and other health care sources to leverage state funding and resources for PPD study and treatment in Indiana.
- **Develop a multimedia approach** to promote early identification of women at risk for PPD and the need for prompt intervention and treatment. This would involve, among other available strategies, radio and television public service announcements, news articles, and distribution of written and video information. A statewide conference on the issues surrounding PPD should be held and serve as the official kick-off of this effort. Such a conference should encourage and invite the participation of representatives from appropriate health care deliverers, state agencies, professional associations and community organizations.
- **Develop an ad hoc Indiana Perinatal Network committee** to actively pursue Medicaid coverage of PPD screening prenatally and postnatally through the Indiana state legislature.

## RESOURCES & WEBSITES

### AMERICAN COLLEGE OF OBSTETRICIANS & GYNECOLOGISTS (ACOG)

409 12th Street, SW  
Washington, D.C. 20024-2188  
Phone: 202.484.3321; Fax: 202.479.6826; Website: [www.acog.org](http://www.acog.org)

### AMERICAN ACADEMY OF FAMILY PHYSICIANS (AAFP)

11400 Tomahawk Creek Parkway  
Leawood, KS 66211-2672  
Phone: 913.906.6000 Website: [www.aafp.org](http://www.aafp.org)

### AMERICAN PSYCHOLOGICAL ASSOCIATION (APA)

750 First Street, N.E.  
Washington, D.C. 20002-4242  
Phone: 202.336.5500; 800.374.2721; Website: [www.apa.org](http://www.apa.org)

### OFFICE ON WOMEN'S HEALTH (OWH)

200 Independence Avenue, S.W. 730B  
Washington, D.C. 20201  
Website: [www.4woman.gov](http://www.4woman.gov)

### ASSOCIATION OF WOMEN'S HEALTH, OBSTETRIC, AND NEONATAL NURSES (AWHONN)

2000 L Street, N.W., Suite 740  
Washington, D.C., 20036  
Phone: 202.261.2400; Fax: 202.728.0575; Website: [www.awhonn.org](http://www.awhonn.org)

### DEPRESSION AFTER DELIVERY (DAD)

Website: [www.depressionafterdelivery.com](http://www.depressionafterdelivery.com)

### PACIFIC POSTPARTUM SUPPORT SOCIETY

104-1416 Commercial Drive; Vancouver, BC V5L 3X9 CANADA  
Phone: 604.255.7999; Fax: 604.255.7588; Website: [www.postpartum.org](http://www.postpartum.org); E-mail: [ppps@postpartum.org](mailto:ppps@postpartum.org)

### POSTPARTUM SUPPORT INTERNATIONAL (PSI)

927 North Kellogg Avenue  
Santa Barbara, CA 93111  
Phone: 805.967.9367; Fax: 805.967.0608; Website: [www.postpartum.net](http://www.postpartum.net)

**POSTPARTUM EDUCATION FOR PARENTS (PEP)**

P.O. Box 6154  
Santa Barbara, CA 93160  
Phone: 805.564.3888; Website: [www.sbpep.org](http://www.sbpep.org)

**POSTPARTUM DEPRESSION SCREENING SCALE (PDSS)**

Beck, C.T. & Gable, R.K. (2002).  
USA: Western Psychological Services  
12031 Wilshire Blvd; Los Angeles, CA 90025-1251  
Phone: 800.648.8857

**ADDITIONAL WEBSITES**

- Online PPD Support Group: [www.ppdsupportpage.com](http://www.ppdsupportpage.com)
- Online Family Network: [www.storknetfamily.com](http://www.storknetfamily.com)
- iVillage: Pregnancy & Parenting: [www.parentsplace.com](http://www.parentsplace.com)
- BabyCenter: [www.babycenter.com](http://www.babycenter.com)
- The Postpartum Stress Center: [www.postpartumstress.com](http://www.postpartumstress.com)
- PostpartumDads: [www.postpartumdads.com](http://www.postpartumdads.com)

**RECOMMENDED READING FOR PROFESSIONALS**

- American College of Obstetricians and Gynecologists (2002): *Clinical Updates in Women's Health Care: Depression in Women*, 1(2), 1-82.
- APA Online Press Release (March 15, 2002): *New report on Women and Depression: Latest Research Findings and Recommendations*. Online: [www.apa.org/releases/depressionreport.html](http://www.apa.org/releases/depressionreport.html)
- Dunnewold, A. & D. Sanford (1994). *Postpartum Survival Guide*. Oakland, CA: New Harbinger Publications.
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- Honikman, J. (2000). *Step-by-Step: A Guide to Organizing a Postpartum Support Network in your Community*. Santa Barbara, CA.
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- Taylor, V. (1996). *Rock-a-Bye-Baby: Feminism, Self-Help and Postpartum Depression*. New York: Routledge.

**RECOMMENDED READING FOR CONSUMERS:**

- Bennet, S. (2003). *Beyond the Blues: A Guide to Understanding and Treating Prenatal and Postpartum Depression*. CA: Moodswings Press.
- Kleiman, K. (2000). *The Postpartum Husband: Practical Solutions for Living with Postpartum Depression*. USA: Xlobris Corporation.
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- Placksin, S. (1997). *Mothering the New Mother: Women's Feelings and Needs After Childbirth*. New York: Newmarket Press.
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- Shields, B. (2005). *Down Came the Rain: My Journey Through Postpartum Depression*. New York: Hyperion.
- Sichel, D. & Driscoll, J.W. (1999). *Women's Moods... What Every Woman Must Know About Hormones, the Brain, and Emotional Health*. New York: Harper Collins Publishers.

BREASTFEEDING & ANTIDEPRESSANT DRUGS

- Center for Breastfeeding Information at LeLeche International; 847.519.7730, Ext. 241.
- Fotini, H. & L. Albrecht. (1996). Antidepressant Use During Breastfeeding. *Journal of Human Lactation*, 12(2), 139-41.
- Hale, T. (2002). Medications and Mothers' Milk. 9th ed. Amarillo, TX: Pharmasoft Medical Publishing.
- Wisner, K., Perel, J. & R. Findling. (1996). Antidepressant Treatment During Breastfeeding. *American Journal of Psychiatry*, 153(9), 1132-1137.
- Friedman, L. & Lawrence, R., Lactation Study Center *Encouraging and Promoting Breastfeeding*. University of Rochester Medical Center 716.275.0088

RESOURCE VIDEOS

- Fragile Beginnings: Postpartum Mood and Anxiety Disorders
- Diapers and Delirium: Care and Comfort for Parents of Newborns
- Bringing Up Baby: Preventing the New Baby Blues
- Bringing Up Baby: What to Do if You're Feeling Blue
- Taking Care of Mom: A Guide to Postpartum
- New Fathers, New Lives: A Video to Help Men Make the Transition to Fatherhood

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*This document reflects the consensus of the Indiana Perinatal Network (IPN) State Perinatal Advisory Board—a constituency of professional organizations (i.e. ACOG, AAP) and individuals (i.e. CNMs, MDs, consumers) committed to the belief that every baby in Indiana deserves to be born healthy and into a safe and nurturing home.*

*IPN documents such as this are intended to serve as recommendations—not as established standards or rigid rules. Health care providers must make the best decisions possible within the limitations of the particular situation. All are invited to make suggestions for improving this document.*