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Depression in the antenatal and postnatal periods

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Contact us:
Mail: P.O. Box 6032, Dunedin
Email: editor@bpac.org.nz
Free-fax: 0800 27 22 69

www.bpac.org.nz

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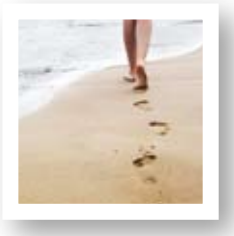

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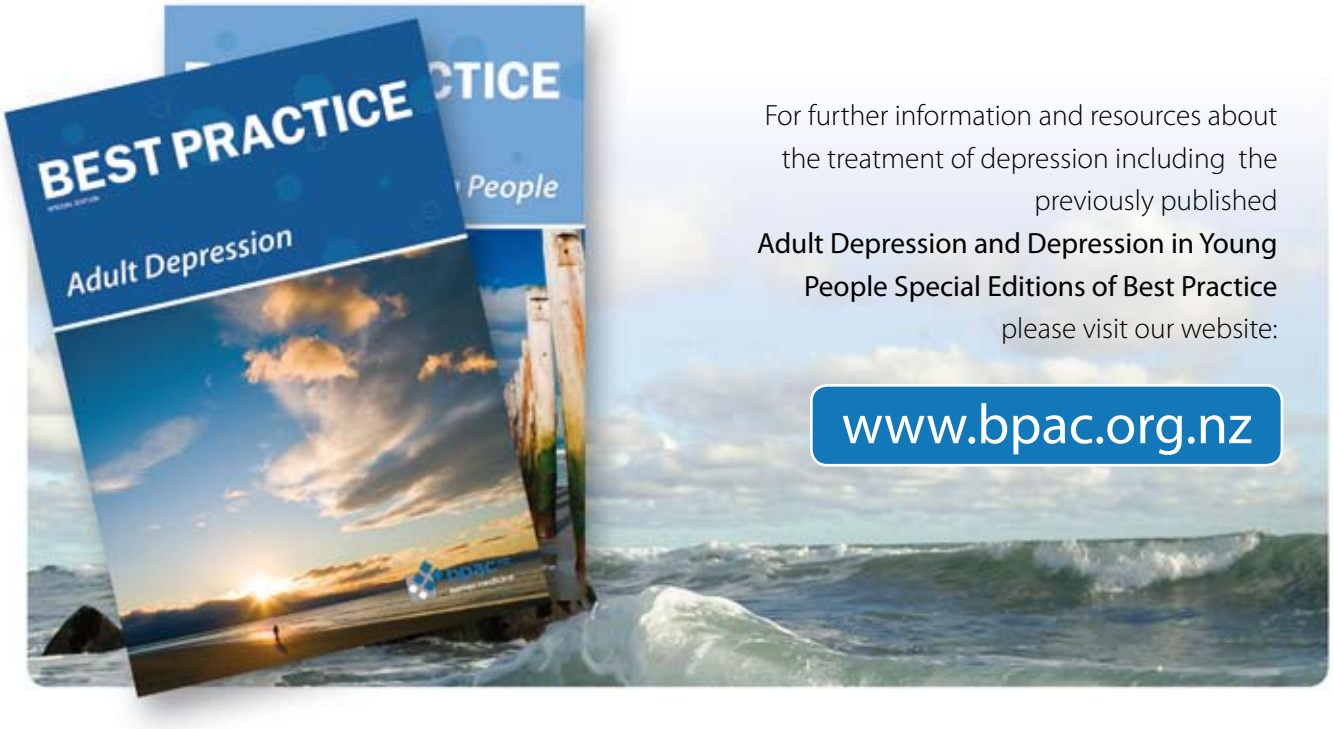

For further information and resources about the treatment of depression including the previously published **Adult Depression and Depression in Young People Special Editions of Best Practice** please visit our website:

www.bpac.org.nz

Purpose and introduction

The purpose of this journal is to examine the assessment and management of depression in women during the antenatal and postnatal periods. It is the second of three follow-up publications which supplement the Best Practice Journal, Special Edition: "Adult Depression", published in June 2009.

The Evidence Based Practice Guideline for the Identification of Common Mental Disorders and Management of Depression in Primary Care,[1] published in July 2008 by the New Zealand Guidelines group, has formed the basis of this publication. It is intended as a resource for all primary care practitioners – including general practitioners, midwives and practice nurses.

This publication focuses on the management of depression, however any mental health disorder can occur during the antenatal and postnatal periods, including anxiety, bipolar disorder, substance use disorder and affective psychoses. The characteristics and presentation of mental health disorders in the antenatal and postnatal periods are similar to that in other adult women. However, there are some differences to consider and the treatment of mental health disorders during this period often poses challenges, especially regarding the use of antidepressants, antipsychotics and mood stabilisers during pregnancy or breastfeeding.

This publication is also a supporting information resource for the *bestpractice* Decision Support Module which is freely available to all New Zealand general practices.

Recommendations and key practice points

(Adapted from NZGG, 2008[1])

- **History**
  As part of routine antenatal care, the practitioner should enquire whether a woman has any history of mental health disorder or any family history of mental illness including in the antenatal or postnatal periods.

- **Contact and screening questions**
  On first contact with primary care, and subsequent postnatal checks, the practitioner should consider the use of the verbal two to three question screening tool for depression as part of routine assessment. Screening questions for anxiety and substance abuse should also be considered.

- **Further assessment**
  If a woman's response to a verbal two to three question screening tool arouses concern about a possible mental disorder (or if other issues do so) she should normally be referred promptly for further

clinical assessment by her GP. This should include a check for suicidal ideation or intent. It is important to differentiate postnatal depression from milder "baby blues" or more severe bipolar disorder or psychosis (see page 8).

- **Information – Risks and benefits of treatment**
  A woman with depression in the antenatal or postnatal period should be informed of the risks and benefits of treatment options including the risks of untreated depression.

- **Collaboration**
  There should be close collaboration and sharing of information between the midwife, general practitioner and other practitioners involved in the care of a woman with antenatal or postnatal depression. All relevant information should be available to the Lead Maternity Carer.

- **Empowerment, communication and the wider family/whānau environment**
  Involve women in decisions about their care. If possible, family/whānau should also be involved. Good communication is important; patients, relatives and carers should be given information that is easy to understand. Consider the needs of other children and the impact of the illness on relationships.

- **Active support and management**
  This includes education, activities and the involvement of family/whānau and appropriate support people and groups. This should be combined with, and maintained during, all other treatment strategies. A woman with depression in the postnatal period should be encouraged to attend a mother and infant support group.

- **Consider non-pharmacological interventions**
  Non-pharmacological interventions such as enhanced social support and/or a psychological therapy should be considered before prescribing medication for depression during pregnancy or postnatal depression,

Mental health disorders in the antenatal and postnatal period

10–15% of women experience depression after having a baby

10% of pregnant women experience depression

20 – 30% of women experience anxiety during and after pregnancy

2 – 3% of women experience bipolar disorder during and after pregnancy

0.5% of women experience postpartum psychosis

Adapted from: Postnatal Depression Family/Whānau New Zealand Trust. Mothers Matter. Available from: **www.mothersmatter.co.nz**

Caution with use of the term "postnatal depression"

A spectrum of depressive symptoms can occur in the postnatal period ranging in severity from "baby blues" to severe depression or bipolar disorder. Caution has been advised in using the term postnatal depression as it can be misused as an inclusive "catch-all" term to describe any mental illness occurring in the postnatal period. This may result in misdiagnosis and failure to recognise more serious mental illness. The term postnatal depression has been used in this publication on the understanding that it is essential that practitioners differentiate this from the spectrum of mental health disorders that can occur in the postnatal period.

Complications and consequences of depression in the antenatal or postnatal period[2,3]

Severe depression in these periods is associated with:

- Poorer long-term outcomes for the child, including cognitive, emotional and behavioural difficulties
- Adverse effects in other children, the woman's partner and the family's socioeconomic situation
- Relationship difficulties - the woman's partner may also become depressed
- Suicidal behaviour - in the developed world, suicide is the major cause of maternal death in the first year postpartum, mainly due to relapse of severe mental illness. However, the suicide rate in age-matched, non-postpartum women is higher.[2]

especially for a woman with mild symptoms, or in early pregnancy (first trimester).

- **Mild to moderate depression**
  A brief psychological intervention, e.g. six to eight weeks of non-directive counseling, interpersonal therapy (IPT) or cognitive behavioural therapy (CBT), should be considered as a first line intervention in the management of a woman with mild to moderate depression in the antenatal or postnatal period. If there is no response to initial treatment, a more structured psychological therapy, e.g. longer courses of CBT or IPT, could be considered, in consultation with maternal mental health services.

- **Moderate to severe depression**
  An antidepressant may be considered as first-line treatment for a woman with moderate to severe depression in the antenatal or postnatal period, after discussion of the likely benefits, risks of untreated depression and possible risks of treatment. A woman with severe depression should be managed in consultation with maternal mental health services or other appropriate psychiatric services.

- **Antidepressants in pregnancy and breastfeeding**
  If any woman who is pregnant or planning pregnancy is being treated with an antidepressant, her treatment preference, previous history and risk should be reviewed. If appropriate, attempts should be made to withdraw the antidepressant and substitute an alternative treatment and/or ensure that the antidepressant with the lowest risk profile is used. Most commonly used antidepressants are considered to be compatible with breastfeeding.

Postnatal depression

Depressive symptoms in the postnatal period represent a range of clinical conditions of varying severity from simple "baby blues" to postnatal depression (which may range from mild to severe), bipolar disorder and postpartum psychosis (see differential diagnosis, page 8). There may be some overlap between these disorders, so they should be viewed as existing along a continuum of severity, rather than distinct clinical entities.[4] Postnatal depression should not be used as a general term to cover the whole spectrum of disorders.

In deciding on appropriate management and when to refer, it is important to differentiate between the disorders and assess severity. For example, most cases of postnatal depression can be managed in primary care, but more severe cases warrant specialist referral or consultation. Immediate referral is required if bipolar disorder or psychosis is suspected.

Postnatal depression is common

Postnatal depression is the most common and serious disorder of the first year after childbirth. It affects approximately 15% of all women who give birth and is common in all age groups, ethnicities, cultures and socioeconomic classes.

Studies in New Zealand using the Edinburgh Postnatal Depression Scale (EPDS, Appendix 1) have reported rates of postnatal depression of 8–13%.[5] A meta-analysis of studies, mainly based in resource-rich (developed) countries, found the incidence of postnatal depression to be 12–13%.[2] Other studies have shown higher incidences in resource-poor (developing) countries,[2] but little is known about the rates of postnatal depression in different ethnicities, within multicultural societies or in immigrant populations.

Postnatal depression is a significant issue because of its impact on the health and well-being of mothers, partners, children and relationships.[5] The adverse influences of postnatal depression may lead to depression in the woman's partner, and cognitive, emotional and behavioural difficulties in the young child. Postnatal depression is also associated with a reduced likelihood of bonding between the mother and infant as well as impaired cognitive and emotional development of the infant, especially in areas of socioeconomic deprivation.

Suicide is a concern in women with mental health disorders in the postnatal period. In the developed world, suicide is now the main cause of maternal death in the first year after childbirth, mainly due to relapse of serious mental illness. However, the rate of suicide in new mothers is not as high as that in age-matched non-postpartum women.[2]

There are general misunderstandings about postnatal depression which may contribute to poor detection rates and sub-optimal treatment. Common misconceptions include: symptoms and effects are less severe than depression experienced at other times, it will resolve by itself and postnatal depression is entirely due to hormonal changes.[3]

All people involved in a mother's care need to be aware of the risk factors and early signs of postnatal depression as many women may not realise that they are becoming unwell. Early detection and collaborative management can significantly improve health outcomes for both the mother and infant. With appropriate management, the majority of mothers respond well to treatment.

Postnatal depression in Māori

There is little information about prevalence rates of postnatal depression in Māori. However, Māori women appear to be at higher risk of postnatal depression than European women in New Zealand. In a community cohort study of 206 Māori and European women, symptoms of postnatal depression were associated with being single, age less than 20 at birth of first child, poor partner relationship, history of psychiatric illness and being Māori.[6]

Postnatal depression in Pacific peoples

As part of the Pacific Island Families Study, 1376 Pacific Island mothers were interviewed (including use of the EPDS) when their babies were six weeks old. Of these mothers, 16% were assessed as "probably experiencing depression". The prevalence of depression varied from 7.6% in Samoans to 31% in Tongans.[5] The overall rate of postnatal depression in Pacific peoples is at the upper end of previously reported rates in the general population, but the discrepancy between symptoms of depression in Samoan and Tongan mothers remains unexplained, even after correction for confounding factors. Risk factors for postnatal depression in this group included a low rate of acculturation*, first birth, stress due to insufficient food, dissatisfaction with pregnancy, infant's sleep patterns and poor partner relationships.

Paternal depression

The available research in this area indicates that paternal depression is common in the postnatal period with an incidence of ~10 %.[7] Risk factors for fathers developing depression include:

- Previous history of severe depression
- Depression and/or anxiety during the antenatal period
- A partner who has developed depression in the postnatal period
- Limited education
- Other children in the family

Paternal depression also has implications for children. There is an association with adverse emotional and behavioural outcomes for infants, including increased conduct problems in boys followed-up for three-and-a-

* Acculturation is the process whereby the attitudes and/or behaviours of people from one culture are modified as a result of contact with a different culture. Acculturation implies a mutual influence in which elements of two cultures mingle and merge – the "blending" of cultures.

half years.[8] There are increased diagnoses of psychiatric disorders at age seven years, particularly oppositional/conduct disorders and social difficulties.

It is therefore, important to assess and treat fathers for postnatal depression. The EPDS (Appendix 1) has validity and reliability in men. It is also important that interventions within the community and mental health services involve fathers and address all infant-parent relationships.

Risk factors for postnatal depression[2, 11]

A number of risk factors associated with the development of postnatal depression have been identified, but there is debate over which of these factors are the most significant. Generally, the strongest predictive factors are depression or anxiety in the antenatal period, or a past history of depression, including a previous diagnosis of postnatal depression.

Other factors that appear to increase the risk of postnatal depression include poor social support, relationship stress or dissatisfaction and recent adverse life events such as bereavement.

Symptoms of postnatal depression

Women with postnatal depression present with similar symptoms as those with general depression, but with some variation. Tiredness is a particularly consistent feature of postnatal depression and symptoms of anxiety are often prominent.[13] Subtle changes in behaviour, often noticed by the partner or other family members, may be the first symptom of postnatal depression. Some of the traditional markers of depression, such as sleep disturbance, loss of libido and weight change, are often partially or completely hidden in postnatal depression. These symptoms may be perceived as a normal part of motherhood and can conceal the development of depressive illness.

Women often appear, or complain of feeling, overwhelmed by motherhood and the needs of the infant. They may also feel trapped, angry, fearful or panicky, and be unable to talk about how they feel.

The impact of untreated postnatal depression and child development

The nature of the bonding between the mother and infant influences childhood neurodevelopment. Maternal nurturing and attention during the first postnatal year appears to be critical for optimal infant brain development.

A case control study has shown an association between untreated postnatal depression and reduced IQ at age 11 years in boys. Increased behavioural problems, violent behaviour, attention deficit and increased special education needs were also observed.[9] Effects in girls were not as strong but there were trends away from the norm.

The degree of maternal attachment and emotional connection appear to influence infant development.[10] Reduced maternal presence, even if subtle, may compromise the infant's sense of safety and protection. The theory is that the infant becomes pre-occupied in searching for emotional security and attachment, and is less likely to focus on healthy developmental activities such as exploration, learning and play.

What causes postnatal depression?

Although there are risk factors associated with the development of postnatal depression there are no clear causes. There is no certain link with the hormonal changes around pregnancy and after delivery, and obstetric difficulties do not appear to increase risk. It can be difficult to separate out causes from effects, e.g. potential causes such as relationship difficulties can be equally justified as a consequence of the mother's illness. The biggest risk factor appears to be antenatal depression. A New Zealand based study found that women with high EPDS scores were six times more likely to have had depression during pregnancy than women with low scores.[12] Other studies have found that psychological distress during late pregnancy increases the risk of postnatal depression.

Symptoms of postnatal depression include:[2, 4]

- Depressed mood
- Irritability
- Loss of interest in normal activities
- Tiredness and fatigue
- Insomnia
- Loss of appetite
- Low libido
- Poor concentration
- Feelings of guilt about inability to look after the new infant

Tiredness is often the first symptom to be noticed and the last to resolve on remission. It is important to recognise other potential causes of postnatal fatigue such as anaemia, infection, postpartum thyroiditis, cardiomyopathy and exacerbation of a pre-existing illness such as fibromyalgia or chronic fatigue syndrome.

Differential diagnosis

It is important to differentiate between postnatal depression and other depressive disorders that can occur postpartum. Primarily these are "baby blues", puerperal psychosis, bipolar disorder and substance misuse.

"Baby blues"

Baby blues is a temporary condition, affecting about 70 – 80% of women, and because it is so common it is often considered a normal part of the emotional changes after delivery. Symptoms of baby blues include mood lability, tearfulness, mild symptoms of anxiety or depression, irritability, fatigue and insomnia. Symptoms usually peak at three to five days postpartum and should completely resolve by 10 – 14 days. Baby blues that are prolonged or severe present a risk factor for the development of postnatal depression. Women should be reviewed after the tenth postpartum day. If symptoms are not improving the early onset of postnatal depression should be considered.

Most women with baby blues do not require any specific treatment other than reassurance.

Puerperal psychosis

Puerperal psychosis occurs in approximately two in 1000 births and is characterised by a sudden onset (one to two weeks postpartum) of psychotic symptoms such as delusions and hallucinations. Mania, mixed mania/depression, abnormal behaviour or rapid speech may also be present. It is potentially life-threatening to both mother and infant and immediate referral to psychiatric care is indicated.

Bipolar disorder

The typical age of onset for bipolar disorder is late adolescence or early adulthood, which places women at risk of an episode during their reproductive years.

About 2 – 3% of women experience bipolar disorder which may begin during pregnancy or after delivery. Childbirth can trigger a severe bipolar episode, either as a first presentation or a relapse.[1] There is usually a family history of bipolar disorder, and in some cases a woman may have had previous episode of depression which was not recognised as bipolar disorder.

Key factors that can help to identify whether a previous episode of depression might have been bipolar disorder, include:[7]

- Onset before age 20 years
- Presence of psychomotor symptoms
- Severe symptoms and signs – significant feelings of worthlessness, guilt, hopelessness, marked sleep disturbance, poor self-care, including lack of appetite and weight loss, significant slowing of thought and movement
- Family history of bipolar disorder

N.B: there is some overlap between these symptoms and severe, unipolar depression in the postnatal period.

Substance use disorders

Substance use disorders, particularly alcohol or cannabis, are not uncommon during pregnancy. Early identification and management of these disorders is important to prevent or reduce the risk of long term adverse effects on the infant, such as foetal alcohol syndrome. It is now widely recognised that there is no safe level of alcohol intake in pregnancy. Multiple addictions are also common, in particular alcohol with tobacco and alcohol with cannabis. Alcohol and other substance misuse during the postnatal period may worsen depression and compromise the care of the infant.

Onset and course of postnatal depression

The signs and symptoms of postnatal depression usually appear in the first one to three months following delivery,[2, 4] but onset can occur at any time in the first year.[3] The early postpartum checks provide an opportunity for practitioners to screen and identify most cases of postnatal depression.

Most cases of postnatal depression resolve spontaneously within three to six months but it has been previously reported that approximately one in four affected women is still depressed at the infant's first birthday.[2] These figures should be interpreted in the context that they come from studies performed 15 – 20 years ago. Further studies on response rates and prognosis are required in order to more accurately reflect current practice.

Screening and assessment

In view of the potentially serious consequences of unrecognised mental health disorders in women in the antenatal or postnatal periods, targeted screening is recommended.[1] The maternity care "booking" visit and the six-week postnatal check provide opportunities for practitioners to ask the verbal two to three question screening tools for depression (see sidebar). Questions that screen for anxiety and substance abuse should also be considered.

Women with ideas of either suicide or harming their infant should be referred immediately for urgent psychiatric assessment and child protection measures may need to be put in place.

If the woman's response to any of the verbal screening questions arouses concern (or if other issues do), further clinical assessment is indicated. Assessment and monitoring tools can be used as an optional aid to assessment and monitoring response to treatment. These tools are not diagnostic and do not reduce the need for a complete clinical evaluation.

The Edinburgh Postnatal Depression Scale (EPDS)

The EPDS (Appendix 1) is a self-administered screening tool which can be used to give an indication of the likelihood of postnatal depression.[14] The score obtained can signal the need for further assessment. Although the EPDS was defined to screen for postnatal depression it can also be used in the antenatal period.

In a New Zealand screening programme of over 14,000 women attending a general practice child immunisation clinic, 12% of women exceeded the threshold on the EPDS (≥13) which is similar to reported population rates of postnatal depression.[13]

The scale should be completed by the mother, without discussing answers with others, unless she has language or reading difficulties. The mother is asked to mark the response that best represents how she has been feeling over the previous seven days. The maximum score is 30 and a score of 10 or greater suggests possible depression. Women with a score of above 13 are likely to have depressive illness of varying severity.

Particular attention should be paid to question ten (suicidal thoughts). Any indication of potential suicidal behaviour indicates the need for referral irrespective of the EPDS score. The EPDS has high sensitivity to detect major depressive illness and is useful in providing a baseline score for monitoring progress between visits. The scale is not as useful for identifying psychomotor retardation or tiredness, and as these are common features of postnatal depression, supplementary questions should be considered. If the EPDS score suggests depression, the PHQ-9 (Appendix 2) can be used to assess the severity of the illness.

The EPDS, PHQ-9 and other assessment tools are available in the *bestpractice* decision support module.

Treatment of postnatal depression

General principles:

Collaboration

There should be close collaboration and sharing of information between the midwife, GP and other practitioners involved in the woman's care. All relevant information should be available to the Lead Maternity Carer (with the woman's consent). It is important to foster mutual respect and trust between the woman and all practitioners and also to extend support to other family/whānau or children who may be involved.[1]

Active support and self-management

Active management and education are important components of any treatment and should be continued and reinforced during treatment monitoring and follow-up.

Active support and self-management involves identifying problems and stressors and either taking steps to resolve them or finding coping strategies. For example, this might involve encouraging the mother to seek help in looking after other children at stressful times and help with general household chores, providing time and space for leisure activities, or helping to arrange counselling if relationship problems or family problems are contributing to stress.

Self-management includes exercise, making time for pleasurable activities with family/whānau and friends, advice on sleep hygiene, improving diet and lifestyle and avoiding alcohol and recreational drugs. Computerised e-therapy (Appendix 3) is an important self-management

option for some women, and should be offered as part of initial treatment if appropriate. It can be continued as an adjunct to additional treatments.

Education and support

Education involves informing the woman and her family/whānau that postnatal depression is not a personal failure, but is a common illness that usually responds to treatment, especially in a supportive and understanding environment. Family understanding and support may reduce stress and the burden of motherhood and allow time out for relaxation and therapeutic activities. A supportive partner can be a key source of practical and emotional support and may be able to mediate between the mother and any family members who find it difficult to understand the nature of postnatal depression.

Postnatal depression support groups, other groups and services and web-based information resources may be useful.

Stepped care

Active support, self-management and education are important general treatment strategies and should always be offered in conjunction with other treatments such as psychological therapy and/or antidepressants.

The treatment of postnatal depression generally follows the same stepped care approach as general depression (See "Depression in Adults" BPJ Special Edition, Jun 2009). The PHQ-9 tool can be used to assess the severity of depressive symptoms but this is only an adjunct to clinical judgment. The PHQ-9 score can be useful in establishing a baseline, and for subsequent monitoring of treatment response.

Mild to moderate depression.

A brief psychological intervention, e.g. six to eight weeks of non-directive counselling, interpersonal therapy (IPT) or cognitive behavioural therapy (CBT), should be considered as a first line intervention in the management of a woman with mild to moderate depression, in addition to active support and self-management. Many women

Verbal screening tools

Verbal two to three question screening tools for common mental health disorders.

Screening questions for depression

- During the past month, have you been bothered by feeling down, depressed or hopeless?
- During the past month, have you been bothered by little interest or pleasure in doing things?

If **yes** to either question, ask Help question below

Screening question for anxiety

- During the past month have you been worrying a lot about everyday problems?

If **yes**, ask Help question below

Screening questions for alcohol and drug problems

- Have you used drugs or drunk more than you meant to in the last year?
- Have you felt that you wanted to cut down on your drinking or drug use in the past year?

If **yes** to either question, ask Help question below

The Help question

- Is this something that you would like help with?

If the responses to the screening questions indicate concern, a full clinical assessment is indicated and this may be assisted by the optional use of assessment and monitoring tools such as the Edinburgh Postnatal Depression Scale (EPDS – Appendix 1) and the PHQ-9 (Appendix 2)

are reluctant to take antidepressants while they are breastfeeding and may prefer non-pharmacological treatments if appropriate. If there is no response to initial treatment, a more structured psychological therapy. e.g. a longer course of CBT or IPT, could be considered, in consultation with maternal mental health services.

Moderate to severe depression

An antidepressant may be considered as first-line treatment for a woman with moderate to severe depression, after discussion of the likely benefits, risks of untreated depression, and possible risks of treatment. A woman with severe depression should be managed in consultation with maternal mental health services or other appropriate psychiatric services.

Monitoring

Monitoring of progress and response to interventions are particularly important as the care of the new infant may be compromised and the mother may be at increased risk of alcohol and other substance misuse. The risk of suicide or self-harm should be assessed regularly.[1]

Psychological Interventions

A variety of psychological therapies are used to treat depression in the antenatal and postnatal periods. If available they are considered a first line intervention for a woman with mild to moderate depression and longer course can be used as an adjunct to antidepressants in severe depression.

Cognitive Behaviour Therapy

"Working with a therapist to challenge negative thoughts and beliefs you have"

CBT is an active, structured intervention in which the woman and therapist work collaboratively to identify the effects of thoughts, beliefs and interpretations on current problem areas, and develop her skills to identify, monitor and counteract these issues. The woman learns a repertoire of appropriate coping skills.

Interpersonal Therapy

"Working with a therapist to learn ways to improve your relationships with other people "

IPT is a structured intervention that focuses on interpersonal and relationship issues. The mother works collaboratively with the therapist to identify the effects of key problem areas associated with interpersonal conflicts, role transitions, grief and loss, and social skills. Symptoms reduce when strategies are developed to cope with or resolve these problem areas.

Non-directive counselling is when the woman talks directly to a counsellor about her feelings and problems. This can be delivered at home ("listening visits").

Psychodynamic therapy is when the woman works with a therapist to examine her feelings about her infant and her own childhood.

Computerised e-therapy

This provides information and self help in various forms including interactive CBT or IPT. This can be used as part of initial treatment and continued to supplement other treatments (Appendix 3 includes a list of recommended resources).

Pharmacological interventions

Antidepressants are generally indicated in moderate to severe depression and when active management and psychological therapy have not provided sufficient response. Careful explanation of the benefits and risks of antidepressant treatment is very important, especially to counteract any potentially incorrect information that the woman may have been exposed to. For example, a woman could be at serious risk of illness relapse if she stops antidepressant treatment because of her concerns about infant exposure to the medicine from breastfeeding.

Indications for antidepressants in postnatal depression:[13]

- Moderate to severe depression with symptoms present for at least two weeks
- Significant anxiety or panic attacks
- Psychomotor change or significant biological symptoms
- Previous response to antidepressant medication

Choice of antidepressant

Choice of antidepressant is mainly determined by current or previous response. A serotonin re-uptake inhibitor (SSRI) is the usual first choice. Paroxetine, citalopram and fluoxetine are all considered to be compatible with breastfeeding.

There is no evidence to suggest that any particular medicine or class of antidepressant is more effective in this patient group. The choice of antidepressant is determined by previous response, and whether the woman is breastfeeding or wishes to (see below). If a woman has been treated, and responded well to an antidepressant during pregnancy, it is usually preferable to continue with the same agent in the postnatal period. A SSRI is now generally used as the first line antidepressant as they are better tolerated and safer in overdose than tricyclic antidepressants (TCAs).

Antidepressants for postnatal depression during breastfeeding

A complex relationship exists between postnatal depression and breastfeeding. Depression is less likely to develop in women who establish and maintain breastfeeding than in those who have difficulties with breastfeeding.[15] Women who develop postnatal depression are more likely to stop breastfeeding, perhaps due to concerns about infant medicine exposure. Other women may stop taking their antidepressant due to toxicity concerns, without realising the risks of their untreated illness.

Not surprisingly, there are no randomised controlled trials of antidepressant use during breastfeeding, and there is little evidence on the long-term consequences of infant exposure to antidepressants through breast milk. The safety of medicine exposure from breast milk is derived from case studies and observational investigations involving small numbers of women who are producing breast milk.

The relative safety of a medicine taken during breastfeeding is expressed in terms of the weight adjusted maternal dose (WAMD).[16] If the maternal dose of a medicine is 10 mg/kg, a "dose" of 1 mg/kg received via breast milk represents a WAMD of 10%. If the WAMD is low, the overall medicine exposure to the infant is also low. Arbitrarily, drugs with a WAMD of 10% or less are considered relatively safe for the infant, but the lower the better. Exceptions are drugs such as warfarin and cytotoxics which are inherently toxic and any exposure would be considered unsafe.

As well as having a low WAMD, a medicine with a short half-life is desirable as this reduces the risk of accumulation and allows significant removal of the drug from the maternal circulation between feeds.

The SSRIs and their metabolites pass into breast milk in small amounts, generally below 7% of the WAMD. Infant ingestion via milk is lowest for paroxetine (WAMD ≈ 2%)

citalopram (≈ 7%) and highest for fluoxetine (≈ 10%).[17] Fluoxetine, citalopram and paroxetine are all considered to be compatible with breastfeeding. If a woman has been successfully treated with fluoxetine or citalopram in pregnancy, and needs to continue treatment after delivery, it is not necessary to switch to paroxetine as differences in medicine exposure are relatively small. Sedation, poor feeding and behavioural changes have been rarely associated with exposure to SSRIs via breast milk. Although there is no proven link between the medicine exposure and these adverse effects, breastfed infants should be monitored, particularly if the mother is taking fluoxetine or higher doses of any SSRI.

The commonly used TCAs, amitriptyline and nortriptyline have a low WAMD and are considered safe to use in breastfeeding. However, SSRIs are generally preferred as they are generally better tolerated and have a lower toxicity in overdose.

Doxepin has been associated with some adverse effects in breastfed infants and is not recommended while breastfeeding. Studies have shown that venlafaxine is excreted into breast milk with a WAMD in the range of 2–9%.[17] This indicates that it is relatively safe in breastfeeding but experience is limited and it is not a first-line choice.

Hormonal therapy

There is no place for synthetic progestogens in the treatment of postnatal depression, and norethisterone is in fact associated with an increased risk of postnatal depression. Progesterone-only contraceptives should be used with caution in the postnatal period, particularly in women with a history of depression before or during pregnancy.[18]

The role of natural progesterone in the treatment of postnatal depression has yet to be evaluated in a randomised, controlled trial.

Some studies have shown modest benefits of oestrogen therapy at late stages of postnatal depression,[18] but it is not recommended as a treatment option in the New Zealand Guidelines.[1]

Monitoring treatment and follow-up

It is important to monitor response to treatment and adjust if response is inadequate. This will involve good communication between all practitioners involved in the woman's care. There are significant risks if untreated depressive illness in the postnatal period carries forward in to subsequent pregnancy. The next pregnancy should be planned and discussed with consideration of factors such as the control of the current illness, whether in remission or not, and the need for continued antidepressant treatment.

Contraceptive advice is important as low libido and breastfeeding can lead the mother in to thinking that conception is not possible. An unexpected pregnancy during this time can be extremely stressful and compromise the health of mother and infant.

Prevention of postnatal depression

Available data on the use of prophylactic medicines or psychological interventions do not support routine, non-targeted interventions to reduce postnatal depression.[2] However, intensive, professional postpartum support, provided on an individual basis to at-risk mothers, may be beneficial.[19] NICE guidelines (United Kingdom) recommends four to six sessions of CBT or IPT for pregnant women who have symptoms of depression and/or anxiety that do not meet diagnostic criteria, but have had a previous episode of depression or anxiety.[11]

The role of natural progesterone or oestrogen in prevention of recurrent postnatal depression has not been rigorously evaluated.

Antenatal depression

Unrecognised or untreated depression during pregnancy poses considerable risk to both the mother and the developing foetus.

Depression in the antenatal period can have significant negative effects on early mother-infant interactions and can compromise the cognitive, emotional and behavioural development of the child. These childhood developmental disturbances can be prolonged and appear to be most evident in boys and socially disadvantaged children.[5]

There is little information on the prevalence of depression that occurs during pregnancy and how this compares to the prevalence of depression outside the antenatal period. One meta-analysis estimated a prevalence of depression in the antenatal period to be between 4.5 and 11%.[20]

The occurrence of depression during pregnancy is associated with a previous episode of postnatal depression, and is also a risk factor for recurrence of depression during subsequent pregnancy, and at other times.

Management principles are similar to depression that occurs in non-pregnant women, but a key challenge is deciding when to use antidepressants, and assessing their risks and benefits in this patient population.

Assessment and diagnosis of antenatal depression

Assessment and diagnosis follows the same principles as in depression outside the antenatal period. Simple screening questions can be used at regular intervals during pregnancy and followed up with the EPDS and PHQ-9.

It is beneficial, but not always possible, to assess a woman with a history of mental health disorders before she conceives. This allows any anticipated treatment to be planned with respect to using the safest and most effective options. A woman who is currently taking an antidepressant may wish to trial supervised withdrawal if appropriate, prior to conception, or switch to a medicine that is recognised as being safer. If medicine withdrawal is not possible for the stage of the illness, it may be appropriate to delay pregnancy until treatment is no longer required.

Treatment of antenatal depression

There are few well designed clinical trials that demonstrate the effectiveness of psychological or antidepressant treatment in pregnant women. Recommendations are largely extrapolated from the general population on the assumption that treatment effects should be similar.

Consequently, the treatment of depression in pregnancy follows a similar stepwise approach to the treatment of depression in adults.

Non-pharmacological interventions, such as enhanced social support and/or a psychological intervention should be considered before antidepressant treatment, especially if symptoms are mild or in early pregnancy (first trimester).[1]

The major considerations are when to use antidepressants and the safety of these medicines during pregnancy. Due to concerns about the safety of antidepressants in pregnancy, many mothers may prefer to trial psychological therapies before an antidepressant. Pregnant women who are prescribed an antidepressant may be poorly compliant or stop taking their medicine due to safety concerns. This can lead to poor control of depressive symptoms and increased risk of harm to mother and infant. The provision of clear and accurate information about the effectiveness and risks and benefits of treatment is extremely important.

Antidepressants in pregnancy

Which SSRI in pregnancy ?

Fluoxetine is considered to be the first choice antidepressant for use in pregnancy. However, there is little evidence that paroxetine or citalopram pose greater risks and treatment choice should be based on history of previous response rather than safety concerns.

The risks and benefits of any switch in treatment should be considered. For example, a woman who is responding well to paroxetine and becomes pregnant may be put at risk if an attempt is made to switch to another SSRI where clinical response is uncertain.

Both depressive symptoms and exposure to antidepressants during pregnancy are associated with foetal growth changes and shorter gestation time. The relative effects are difficult to determine as the majority of studies that have evaluated the risk of antidepressant use have been unable to control for the possible effects of a depressive disorder. Short term neonatal behavioural changes and irritability are also linked to both maternal depression and antidepressant treatment.[21]

Several studies have reported foetal malformations in association with first trimester exposure to antidepressants, but there is no specific pattern of defects associated with individual drugs or drug classes. SSRIs are widely used in pregnancy and a recent study estimated that 2.3% of pregnant women are exposed to SSRIs.[22]

There has been recent concern about an increased risk of cardiac malformations with first trimester exposure to paroxetine. This led to warnings and recommendations against the use of paroxetine for the treatment of depression in pregnancy, especially during the first trimester. Fluoxetine then emerged as the SSRI of choice for the treatment of depression in pregnancy. However, a recent review conducted in the UK has concluded that the risks of cardiac malformations associated with paroxetine and fluoxetine are similar.[23] This report further stated that the risk of a foetal cardiac abnormality is increased from 1% to 2% with antenatal exposure to fluoxetine – an absolute risk increase of about 1%, similar to that reported with paroxetine. These figures are still debated due to study design problems and the influence of confounding factors. Although fluoxetine remains the preferred SSRI for use in pregnancy there is no strong evidence that it is any safer than paroxetine or the other SSRIs.

All SSRIs are associated with a small increased risk of persistent pulmonary hypertension in new-born infants. The background rate of this condition is 0.5 – 2 per 1000 and it has been estimated that SSRI exposure in pregnancy increases this to 3 – 6 per 1000.[21]

All antidepressants taken during late pregnancy can give rise to neonatal withdrawal symptoms. Symptoms with SSRIs include irritability and feeding problems but they are usually mild and short-lived. These symptoms are probably less likely with fluoxetine due to its longer half-life. Venlafaxine can cause similar withdrawal symptoms.

TCAs, e.g. amitriptyline, imipramine and nortriptyline, have been used for many years in pregnancy and are considered relatively safe. However, in practice, an SSRI is considered preferable as they are better tolerated and are less toxic in overdose.

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Appendix 1 Edinburgh Postnatal Depression Scale

Name: _____ Address: _____

Your Date of Birth: _____ _____

Baby's Date of Birth: _____ Phone: _____

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

In the past 7 days:

1. I have been able to laugh and see the funny side of things

- ◯ As much as I always could
- ◯ Not quite so much now
- ◯ Definitely not so much now
- ◯ Not at all

2. I have looked forward with enjoyment to things

- ◯ As much as I ever did
- ◯ Rather less than I used to
- ◯ Definitely less than I used to
- ◯ Hardly at all

***3.** I have blamed myself unnecessarily when things went wrong

- ◯ Yes, most of the time
- ◯ Yes, some of the time
- ◯ Not very often
- ◯ No, never

4. I have been anxious or worried for no good reason

- ◯ No, not at all
- ◯ Hardly ever
- ◯ Yes, sometimes
- ◯ Yes, very often

***5.** I have felt scared or panicky for no very good reason

- ◯ Yes, quite a lot
- ◯ Yes, sometimes
- ◯ No, not much
- ◯ No, not at all

***6.** Things have been getting on top of me

- ◯ Yes, most of the time I haven't been able to cope at all
- ◯ Yes, sometimes I haven't been coping as well as usual
- ◯ No, most of the time I have coped quite well
- ◯ No, I have been coping as well as ever

***7.** I have been so unhappy that I have had difficulty sleeping

- ◯ Yes, most of the time
- ◯ Yes, sometimes
- ◯ Not very often
- ◯ No, not at all

***8.** I have felt sad or miserable

- ◯ Yes, most of the time
- ◯ Yes, quite often
- ◯ Not very often
- ◯ No, not at all

***9.** I have been so unhappy that I have been crying

- ◯ Yes, most of the time
- ◯ Yes, quite often
- ◯ Only occasionally
- ◯ No, never

***10.** The thought of harming myself has occurred to me

- ◯ Yes, quite often
- ◯ Sometimes
- ◯ Hardly ever
- ◯ Never

Administered/Reviewed by _____ Date _____

Instructions for using the Edinburgh Postnatal Depression Scale:

1. The mother is asked to check the response that comes closest to how she has been feeling in the previous 7 days.
2. All the items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others. (Answers come from the mother or pregnant woman.)
4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.

EPDS Scoring and provisional diagnosis

QUESTIONS 1, 2, & 4 (without an *)

Are scored 0, 1, 2 or 3 with top box scored as 0 and the bottom box scored as 3.

QUESTIONS 3, 5–10 (marked with an *)

Are scored 0, 1, 2 or 3 with top box scored as 3 and the bottom box scored as 0.

Maximum score:	30
Possible Depression:	10 or greater
Always look at item 10	(suicidal thoughts)

Source: Cox, J.L., Holden, J.M., and Sagovsky, R. 1987. Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. British Journal of Psychiatry 150:782-786.

Appendix 2 Patient Health Questionnaire (PHQ-9)

Patient health questionnaire for depression				
Over the last 2 weeks, how often have you been bothered by any of the following problems? For each question select the option that best describes the amount of time you felt that way.				
In the last 2 weeks	Not at all	Several days	More than half the days	Nearly every day
	0	1	2	3
1. Little interest or pleasure in doing things	◯	◯	◯	◯
2. Feeling down, depressed, or hopeless	◯	◯	◯	◯
3. Trouble falling or staying asleep, or sleeping too much	◯	◯	◯	◯
4. Feeling tired or having little energy	◯	◯	◯	◯
5. Poor appetite or overeating	◯	◯	◯	◯
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	◯	◯	◯	◯
7. Trouble concentrating on things, such as reading the newspaper or watching television	◯	◯	◯	◯
8. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	◯	◯	◯	◯
9. Thoughts that you would be better off dead, or of hurting yourself in some way	◯	◯	◯	◯

PHQ-9 provisional diagnosis

Scoring — add up answers to questions on PHQ-9

Not at all = 0; Several days = 1; More than half the days = 2; Nearly every day = 3

Total Score	Depression Severity
10–14	Mild
15–19	Moderate depression
≥ 20	Severe depression

See **www.nzgg.org.nz/CMD-assessmenttools** for more information

Appendix 3

The National Depression Initiative

www.depression.org.nz

The National Depression Initiative has an interactive website, with focus on self-management. It provides a self-test and detailed information about depression and New Zealand options for management and treatment in the form of a "journey" that users can take to "get through" depression. It features video clips of New Zealanders who talk about their experiences and what they found helpful.

The Low Down

www.thelowdown.co.nz

An interactive website for young people featuring a self test, fact sheets, a moderated message board to enable peer support, and video clips from popular musicians and high profile young sports people talking about their experiences of depression. The site enables access to a team of counsellors who provide email, phone, webcam and text-based support services for young people.

Recovery via the Internet from Depression (RID)

www.otago.ac.nz/rid

The RID trial (2006-2010) will test whether a set of web-based self-help programmes work for reducing depression in New Zealand. The programmes are designed to help people manage their depression by providing relevant information and/or working through a number of exercises on the internet. The aim of this site is to explain the RID trial and invite people to take part in it.

Antenatal & Postnatal **DEPRESSION**

The new Antenatal / Postnatal Depression module focuses on the recognition and assessment of common mental disorders and the management of depression in women in the antenatal and postnatal period.

Features include:

- Screening & assessment tools
- Stepped care management options
- Additional resources

Contact us

Level 8, 10 George St
PO Box 6032
Dunedin

P: 03 479 2816
F: 03 479 2569
E: info@bestpractice.org.nz
W: **www.bestpractice.net.nz**

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