CLINICAL PRACTICE GUIDELINES

Depression and related disorders – anxiety, bipolar disorder and puerperal psychosis – in the perinatal period

A guideline for primary care health professionals

February 2011

beyondblue
the national depression initiative
www.beyondblue.org.au

beyondblue: the national depression initiative is an independent, not-for-profit organisation. Since *beyondblue's* establishment in October 2000, it has been the policy of the *beyondblue* Board not to accept funding from or partner with pharmaceutical companies. None of *beyondblue's* activities is funded by pharmaceutical companies. This allows *beyondblue* to retain independence and impartiality and promote evidence-based approaches to depression, anxiety and related disorders across all program areas.

Disclosure of interests

All those invited to become members of the Guidelines Expert Advisory Committee (GEAC) were asked to complete a 'Certification of Disclosure of Interest' form, which advised that there were no conflicts of interest, prior to their being accepted onto the GEAC.

Throughout the development of the Guidelines, members were requested to advise *beyondblue* and the GEAC Chair if any potential competing interest arose during the development of the Guidelines, for example, being offered an honorarium (financial or in-kind), or payment for travel expenses, to present at a pharmaceutical company event or conference.

An enquiry by the GEAC Chair into any potential or perceived conflict of interest was a standing item at the beginning of every committee meeting, with a thorough explanation provided of what may constitute a potential or perceived conflict of interest.

In the case of a member being an author of a paper under discussion, where it could be seen to present a competing interest, particularly in the development of either a recommendation or a good practice point, members were requested to leave meetings for the duration of the item. This was to avoid the potential for the member influencing any decision made and was duly recorded in the minutes of the meeting.

Any issue raised that had the potential to present a conflict of interest, such as an invitation to present at a pharmaceutical company-sponsored conference, was addressed by the Chair and member, and managed so as to ensure that no conflict of interest occurred.

The disclosure of interest management process was robust, transparent and drawn to members' attention frequently.

Systematic literature review

The systematic literature review that provides the evidence base for these Guidelines was conducted by Health Technology Analysts Pty Ltd.

Technical writing

Ampersand Health Science Writing was responsible for drafting and editing the Guidelines in consultation with the GEAC.

Suggested citations

beyondblue (2011) *Clinical practice guidelines for depression and related disorders – anxiety, bipolar disorder and puerperal psychosis – in the perinatal period. A guideline for primary care health professionals*. Melbourne: *beyondblue: the national depression initiative*.

or

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Publication approval

Australian Government

National Health and Medical Research Council

These guidelines were approved by the Chief Executive Officer of the National Health and Medical Research Council (NHMRC) on 11 February 2011, under Section 14A of the *National Health and Medical Research Council Act 1992*. In approving these guidelines the NHMRC considers that they meet the NHMRC standard for clinical practice guidelines. This approval is valid for a period of 5 years.

NHMRC is satisfied that they are based on the systematic identification and synthesis of the best available scientific evidence and make clear recommendations for health professionals practising in an Australian health care setting. The NHMRC expects that all guidelines will be reviewed no less than once every five years.

This publication reflects the views of the authors and not necessarily the views of the Australian Government.

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Foreword

beyondblue is pleased to issue these *Clinical Practice Guidelines for Depression and Related Disorders – Anxiety, Bipolar and Puerperal Psychosis – in the Perinatal Period*.

The Guidelines summarise published evidence and make recommendations on key areas of perinatal mental health care. In areas for which there is insufficient evidence for recommendations, the Guidelines include good practice points (GPPs), which are based on lower quality evidence and/or best-practice clinical judgement. The recommendations and GPPs were revised after the public consultation process in March to May 2010, and the Guidelines as a whole benefited greatly from the thoughtful contributions of a wide range of health professionals, consumers and carers, both at workshops and through written submissions.

While the Guidelines are intended as a resource for all health professionals working with women in the perinatal period (pregnancy and the following year), they are primarily targeted at primary care health professionals. Individual use of the guidance will depend on the knowledge and skills of the health professional involved. Women, their infants and significant others should be at the centre of care, wherever it is provided.

These Guidelines will be implemented within the context of current activity at national, jurisdictional and local levels, and of the existing policy framework of the National Perinatal Depression Initiative (NPDI). This national collaboration, introduced by the Australian Government in the 2008–09 Budget, was informed by *beyondblue's National Action Plan for Perinatal Mental Health (2008).*

The Guidelines Expert Advisory Committee recognises that routine psychosocial assessment of women in the perinatal period is an area of continuing debate among jurisdictions, academics and the health sector and that its introduction may have resource implications (including undertaking psychosocial assessment, health professional training and devising local pathways to care). This is being considered in the implementation of the NPDI.

It is anticipated that the Guidelines will contribute to broader understanding of mental health care in the perinatal period, greater consistency in approaches to this care, and improved support and outcomes for women and their families.

Prof Marie-Paule Austin (Chair)
on behalf of the Guidelines Expert Advisory Committee

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Summary

The perinatal period (including pregnancy and the following year) is a time of great change in a woman's life, and it is common for women to experience a wide range of emotions. For many women, feelings of worry and stress resolve by themselves. But in some women, pregnancy and early parenthood can trigger symptoms of more serious mental health problems. The likelihood is greater for women who have had mental health problems before, do not have enough support, or have been through difficult times (e.g. family problems, abuse or loss). For women who feel isolated either by distance, culture or both, including Aboriginal and Torres Strait Islander women and women from culturally and linguistically diverse backgrounds, the likelihood may be even greater.

While estimates vary, research suggests that depression, anxiety or both are experienced by at least one in ten women during pregnancy and one in six women in the year following birth. Less commonly, severe mental health disorders such as puerperal psychosis and bipolar disorder arise or recur. Depression and related disorders affect the wellbeing of the woman, her baby and her significant other(s) (e.g. partner), and have an impact on relationships within the family, during a time that is critical to the future health and wellbeing of children.

beyondblue developed these Guidelines to assist health professionals in primary care and maternity care to accurately identify and effectively treat mental health problems in the perinatal period. Consumers and carers may also be interested in the Guidelines. They are based on the best available current evidence where this exists, and, where it does not, on lower quality research and clinical expertise.

The Guidelines recommend an approach based on routine assessment of emotional health and wellbeing during both pregnancy and the following year that can be integrated into women's regular health checks with a midwife, maternal and child health nurse, Aboriginal and Torres Strait Islander health worker, general practitioner (GP) or obstetrician. The assessment includes questions about psychosocial factors that may increase a woman's likelihood of mental health problems, and also asks about any symptoms of depression or anxiety experienced in the previous week, using the Edinburgh Postnatal Depression Scale (EPDS). The assessment is not intended to predict depression or anxiety, or to replace clinical diagnosis. If a woman has psychosocial factors and/or symptoms, the health professional uses clinical judgement to decide whether she would benefit from follow-up care.

In the early postnatal period, it is also important to begin to assess the relationship between mother and baby, and be aware if there are any signs of puerperal psychosis or bipolar disorder, particularly in women who have had these disorders before.

Follow-up requires a pathway or 'map' by which the woman and her family can access the most appropriate care and support during the perinatal period. The pathway to care will depend on the severity of the woman's risk or symptoms, together with her preferences and social context. Women with psychosocial factors or mild symptoms may benefit from monitoring, a later repeat assessment and lifestyle advice. Women with mild to moderate symptoms may benefit from emotional and practical support (e.g. peer support, counselling) and/or psychological (talking) therapy. Women with diagnosed severe symptoms are likely to require a care plan that integrates these approaches, and they may need to consider also taking medication. If hospital admission is required, mother and baby should be kept together wherever possible. In some situations, specific therapy may be appropriate: for example, early parenting care where a woman has symptoms worsened by sleep deprivation, bereavement counselling for parents whose baby has died, or mother–infant psychotherapy to treat difficult mother and baby relationships.

The way in which different health professionals use these Guidelines will vary depending on their knowledge, skills and role, as well as the setting in which care is provided. Whatever the setting and circumstances, perinatal mental health care should be culturally responsive and family-centred. It should involve collaborative decision-making with the woman and her significant other(s), which includes full discussion of the potential risks and benefits of any treatments offered. Health professionals providing care should have appropriate training and skills, and whenever possible should work together to provide continuity of care for women and their families.

Summary of recommendations

The recommendations in these Guidelines were developed by the Guidelines Expert Advisory Committee (GEAC) (see Appendix 1) based on a systematic review of the available evidence published before early 2009.[1] Where sufficient evidence was available, this was graded according to the National Health and Medical Research Council (NHMRC) gradings (see below) and formulated as recommendations. For areas of clinical practice where evidence is lacking or limited, the GEAC developed good practice points (GPPs) based on lower quality evidence and clinical consensus. GPPs were formulated by GEAC members with expertise specific to the area under discussion, and only included in the Guidelines if all GEAC members agreed with the wording.

Definition of grades of recommendations

Grade	Description
A	Body of evidence can be trusted to guide practice
B	Body of evidence can be trusted to guide practice in most situations
C	Body of evidence provides some support for recommendation(s) but care should be taken in its application
D	Body of evidence is weak and recommendation must be applied with caution

Source: *NHMRC Levels of Evidence and Grades for Recommendations for Developers of Guidelines* (NHMRC 2009).

Recommendations		Grade
1	As a minimum, all health professionals providing care in the perinatal period should receive training in woman-centred communication skills and psychosocial assessment.	C
2	The EPDS should be used by health professionals as a component of the assessment of all women for symptoms of depression in the *antenatal* period.	B
3	The EPDS should be used by health professionals as a component of the assessment of all women in the *postnatal* period for symptoms of depression or co-occurring depression and anxiety.	B
4	A score of 13 or more can be used for detecting symptoms of major depression in the *postnatal* period.	C
5	Non-directive counselling in the context of home visits can be considered as part of the management of mild to moderate depression for women in the *postnatal* period.	C
6	Cognitive behavioural therapy should be considered for treating women with diagnosed mild to moderate depression in the *postnatal* period.	B
7	Interpersonal psychotherapy can be considered for treating women with diagnosed mild to moderate depression in the *postnatal* period.	C
8	Psychodynamic therapy can be considered for treating women with diagnosed mild to moderate depression in the *postnatal* period.	D

1 The systematic literature review was conducted sequentially. Cut-off dates for publications included in the review are as follows — models of care: September 2008; tools: January 2009; interventions: March 2009; harms associated with pharmacological treatments: April 2009; community programs, health professional programs and barriers to interventions: July 2009.

Recommendations and good practice points

Effective care of mental health in the perinatal period		Grade	Section/page
GPP 1	Primary and maternity care services should develop locally relevant strategies to ensure that they can provide appropriate, culturally responsive psychosocial care to all women in their communities.		2.1, p8
GPP 2	Involving members of a woman's support network in her care as early as practical provides opportunities for all involved to gain an understanding of the impact of pregnancy and early parenthood on emotional health and wellbeing. It also enables assessment of psychosocial factors affecting family members and family relationships.		2.3, p9
GPP 3	Psychoeducation for women and, where appropriate, their significant other(s) should be a routine component of care in the perinatal period. This should include discussion of mental health and provision of educational materials (e.g. the *beyondblue Emotional Health During Pregnancy and Early Parenthood* booklet).		2.3.1, p10
GPP 4	Health professionals should ensure that communication with women in the perinatal period is empathic and non-directive, and that discussions are woman-centred.		2.4, p11
Rec 1	As a minimum, all health professionals providing care in the perinatal period should receive training in woman-centred communication skills and psychosocial assessment.	**C**	2.5.1, p12
GPP 5	Health professionals involved in managing women's mental health during the perinatal period should seek ongoing support or mentoring.		2.5.1, p12

Psychosocial assessment		Grade	Section/page
GPP 6	Clinical judgement is central to decision-making about further support and/or referral, as it informs the interpretation of answers to the psychosocial factor assessment and scores derived from the EPDS.		3.1, p17
GPP 7	As early as practical in pregnancy and 6–12 weeks after a birth, all women should be asked questions around psychosocial domains as part of normal care. If a woman affirms the presence of psychosocial factors, she should be asked whether she would like help with any of these issues.		3.2.2, p19
Rec 2	The EPDS should be used by health professionals as a component of the assessment of all women for symptoms of depression in the *antenatal* period.	**B**	3.3.2, p23
GPP 8	Consider a score on the EPDS of 13 or more for detecting symptoms of major depression in the *antenatal* period.		3.3.2, p23
Rec 3	The EPDS should be used by health professionals as a component of the assessment of all women in the *postnatal* period for symptoms of depression or co-occurring depression and anxiety.	**B**	3.3.2, p23
Rec 4	A score of 13 or more can be used for detecting symptoms of major depression in the *postnatal* period.	**C**	3.3.2, p23
GPP 9	Health professionals should be aware that women who score 13 or more on the EPDS may be experiencing anxiety, either alone or co-occurring with depression. Decision-making about further assessment for anxiety should take into account the woman's answers to questions 3, 4 and 5 of the EPDS and her response to the psychosocial assessment question about 'worrying'.		3.3.2, p23
GPP 10	The non-diagnostic nature of the EPDS, its purpose (identification of women who may benefit from follow-up care) and the fact that it relates to the previous 7 days (not just that day) should be clearly explained to all women by the administering health professional.		3.3.2, p24
GPP 11	All women should complete the EPDS at least once, preferably twice, in both the *antenatal* period and the *postnatal* period (ideally 6–12 weeks after the birth). Administration of the EPDS can be readily integrated with existing routine antenatal and postnatal care.		3.3.2, p24
GPP 12	While the EPDS is a self-report tool, in some cases (e.g. difficulties relating to language or literacy, cultural issues, disability), it may be appropriate for it to be administered verbally.		3.3.2, p24
GPP 13	*For women who score **10, 11** or **12*** on the EPDS*:* administration of the EPDS should be repeated within 2–4 weeks, and existing support services reviewed and increased if needed.		3.3.2, p24
GPP 14	*For women who score **13 or 14*** on the EPDS (once *postnatally* or twice *antenatally*)*:* referral to an appropriate health professional (ideally their usual GP) should be made.		3.3.2, p24
GPP 15	*For women with high scores on the EPDS (e.g. **15 or more**)*: the administering health professional should ensure access to timely mental health assessment and management.		3.3.2, p25
GPP 16	*For women who score 1, 2 or 3 on EPDS **Question 10***: the administering health professional should assess the woman's current safety and the safety of children in her care, and act according to clinical judgement, seek advice and/or refer immediately for mental health assessment.		3.3.2, p25

Other assessments in the perinatal period		Grade	Section/page
GPP 17	Assessing the mother–infant interaction should be an integral part of the care of women in the *postnatal* period.		4.1, p29
GPP 18	Where significant difficulties are observed with the mother–infant interaction and/or there is concern about the mother's mental health, the risk of harm to the infant should be assessed.		4.2, p30
GPP 19	Comprehensive mental health assessment is required for women with reported or observed marked changes in mood, thoughts, perceptions and behaviours in the early postnatal period.		4.3, p30
GPP 20	Women identified as being at risk of suicide (through clinical assessment and/or the EPDS) should be specifically assessed. Any immediate risk should be managed and support and treatment options considered. Enquiry about the safety of the infant should also be made.		4.4, p32

Acting on psychosocial assessments		Grade	Section/page
GPP 21	In cases where comprehensive mental health assessment is required, health professionals should identify referral options and actively encourage and support women to use them.		5.2, p35
GPP 22	Primary care health professionals have an ongoing role in the psychosocial care of women in the perinatal period, whether they provide treatment or refer the woman to a health professional with mental health expertise.		5.3, p36

Supporting emotional health and wellbeing in the perinatal period		Grade	Section/page
GPP 23	Women in the perinatal period may benefit from being provided with reliable advice on lifestyle issues and sleep, as well as assistance in planning how this advice can be incorporated into their daily activities during this time.		6.1.1, p39
Rec 5	Non-directive counselling in the context of home visits can be considered as part of the management of mild to moderate depression for women in the *postnatal* period.	**C**	6.2.2, p41

Psychological therapies		Grade	Section/page
GPP 24	Psychological therapies in the perinatal period should be undertaken by registered practitioners with accredited training in the relevant therapy.		7.2, p44
GPP 25	Decision-making about the type of psychological therapy should be based on the woman's preferences, the suitability of a particular therapy to the individual woman, the severity of her disorder and the availability of a suitably trained practitioner.		7.2, p44
Rec 6	Cognitive behavioural therapy (CBT) should be considered for treating women with diagnosed mild to moderate depression in the *postnatal* period.	**B**	7.3.1, p44
Rec 7	Interpersonal psychotherapy (IPT) can be considered for treating women with diagnosed mild to moderate depression in the *postnatal* period.	**C**	7.3.2, p45
Rec 8	Psychodynamic therapy can be considered for treating women with diagnosed mild to moderate depression in the *postnatal* period.	**D**	7.3.3, p45
GPP 26	When a woman is experiencing a significant mental health disorder and has difficulties interacting with her infant, both problems need to be addressed. The wellbeing of the infant needs to be considered at all times.		7.4, p46

Pharmacological treatments		Grade	Section/page
GPP 27	In decision-making about the use of pharmacological treatment in the *antenatal* period, consideration should be given to the potential risks and benefits to the pregnant woman and fetus of treatment versus non-treatment.		8.2, p49
GPP 28	In decision-making about the use of pharmacological treatment in the *postnatal* period, this needs to be weighed against minimal possible exposure to the infant during breastfeeding.		8.2, p49
GPP 29	When the risk of birth defects is discussed, women should be provided with a detailed explanation of the baseline, absolute and relative risks to the fetus or infant of pharmacological treatment, as well as the potential impact on the offspring of treatment versus non-treatment.		8.2.2, p50
Depression during pregnancy			
GPP 30	If a decision is made to commence or continue antidepressant medication during pregnancy, use of SSRIs can be considered as this is the antidepressant category about which most is known. The current evidence on SSRIs shows no consistent pattern of additional risk of birth defects. While the safety of TCAs is supported by a lesser body of evidence, they can also be considered, especially if they have been effective previously.		8.3.1, p52
GPP 31	If a decision is made to discontinue or decrease antidepressant medication, it is important to gradually taper the dose, closely monitor and have a plan to identify relapse early.		8.3.1, p52
GPP 32	Withdrawal symptoms of antidepressants need to be distinguished from symptoms of relapse, therefore close monitoring post discontinuation/ reduction is essential. Expert psychiatric advice should be sought if necessary.		8.3.1, p52
GPP 33	Guidelines for the use of antidepressants in the general population should be consulted (see Appendix 6).		8.3.1, p52
Anxiety disorders during pregnancy			
GPP 34	Use of benzodiazepines can be considered for short-term treatment of severe anxiety in pregnant women while awaiting the onset of action of an SSRI or TCA. Long-acting benzodiazepines should be avoided as much as possible.		8.3.2, p52
GPP 35	Guidelines for the use of benzodiazepines in the general population should be consulted (see Appendix 6).		8.3.2, p52
Bipolar disorder during pregnancy			
GPP 36	Sodium valproate **should not** be prescribed for bipolar disorder in women of childbearing age. Exposure in pregnancy is associated with an increased risk of major birth defects and adverse cognitive outcomes for the infant.		8.3.3, p53
GPP 37	If a decision is made to discontinue or decrease a mood stabiliser during pregnancy it is important to closely monitor and have a plan to identify relapse early.		8.3.3, p54
GPP 38	Clozapine **should not** be initiated during pregnancy. Wherever possible an alternative antipsychotic should be used for women contemplating pregnancy or already taking clozapine on presentation.		8.3.3, p54

Pharmacological treatments (cont)		Grade	Section/page
Depression in the postnatal period			
GPP 39	Women with healthy full-term infants who plan to breastfeed can be advised that SSRIs are not contraindicated.		8.4.1, p55
Anxiety disorders in the postnatal period			
GPP 40	Use of benzodiazepines can be considered for short-term treatment of severe anxiety in breastfeeding women while awaiting the onset of action of an SSRI or TCA.		8.4.2, p55
Bipolar disorder and puerperal psychosis in the postnatal period			
GPP 41	If a decision is made to not recommence a mood stabiliser immediately after the birth, it is important to closely monitor and have a plan to identify relapse early, given the increased risk of relapse at this time.		8.4.3, p56
GPP 42	The passage of lithium into breast milk is more variable than other psychotropic medications. If the woman chooses to breastfeed, lithium should be used with particular caution. The decision should be made in consultation with a specialist physician and where possible there should be ongoing specialist monitoring for potential adverse effects on the breastfed infant.		8.4.3, p56
GPP 43	Where possible, clozapine is best avoided in breastfeeding mothers due both to relatively high breast milk concentrations and possible toxic effects for the infant.		8.4.3, p56
GPP 44	If antipsychotics are prescribed, consideration needs to be given to the woman's physical activity levels and diet to minimise weight gain associated with antipsychotic use.		8.4.3, p56

Note: EPDS=Edinburgh Postnatal Depression Scale; SSRI=selective serotonin reuptake inhibitor; TCA=tricyclic antidepressant.

Introduction

Robust mental health for both mother and family in the perinatal period (pregnancy and the following year)[2] is critical for emotional and physical development in infants and to optimise parenting, nurture and care capacity, and family formation (Perinatal Mental Health Consortium 2008). *beyondblue: the national depression initiative* developed these Guidelines with the aim of providing evidence-based recommendations that support early identification and effective management of mental health problems in the perinatal period and improved mental health outcomes for women and their families.

The Guidelines were developed in accordance with National Health and Medical Research Council (NHMRC) guideline development processes (see Appendix 2). This involved convening a multidisciplinary committee comprising members with specific expertise in mental health care, as well as representatives of primary care (including general practice, midwifery, maternal and child health and mental health nursing), consumer organisations and Aboriginal and Torres Strait Islander health care (see Appendix 1) and formal consultation with a wide range of experts, stakeholders and consumer representatives. A systematic literature review, which identified and critically appraised the evidence based on 26 research questions, provided the basis for the Guidelines (see Appendix 3).

In developing these Guidelines, the Guidelines Expert Advisory Committee (GEAC) also closely examined existing guidelines. The most comprehensive ones available, which are also informed by systematic review of the literature and have used a similar system of grading of evidence and the quality of the recommendations as well a consensus process for developing good practice points, are the UK National Institute for Health and Clinical Excellence guidelines, *Antenatal and Postnatal Mental Health* (NICE 2007). These recommend that all health professionals seek to detect women with depression using two 'Whooley' questions, which ask about their mood and interest or pleasure in activities during the past month. They differ from these Guidelines in that they do not recommend routine use of the Edinburgh Postnatal Depression Scale (EPDS) (although they allow use of this tool as an adjunct); they do not recommend a broader routine psychosocial assessment, nor do they make recommendations on the infant's wellbeing in any specific way. In summary the NICE guidelines have focused on the prediction of maternal mental illness and the detection of depression, rather than taking a broader, more systemic approach to assessment of mother, infant and family.

The other comprehensive guidelines in currency are the NSW Department of Health SAFESTART guidelines (NSW Dept Health 2009) and reproductive mental health guidelines from British Columbia (British Columbia Perinatal Health Program 2003a; 2003b). Both of these, in contrast to the NICE guidelines, use a broader biopsychosocial approach and recommend routine maternal psychosocial assessment including the use of a depression rating scale plus a set of psychosocial questions. They also focus on the need to view women in the context of their infant and family, preserve the mother–infant dyad, and take a family-centred approach. In these ways, they have significant commonalities with these Guidelines. However, neither guideline makes graded recommendations based on a systematic literature review or good practice points based on an expert advisory consensus.

Limitations of the evidence

The Guidelines summarise published evidence based on available high-quality research and make recommendations on key areas of care. As evidence specific to the perinatal period is limited, only a small number of recommendations could be developed. In areas for which there was insufficient research evidence on which to base recommendations, the Guidelines include good practice points (GPPs), which are based on lower quality evidence and/or best-practice clinical judgement. Many GPPs are based on extrapolation of findings from the general population to the perinatal population. The broader depression literature, however, was not reviewed systematically. In the absence of evidence specific to the perinatal period, it is also necessary to refer to guidelines for mental health disorders in the general population.

2 For the purposes of these guidelines, 'perinatal' is defined as the period covering pregnancy and the first year following pregnancy or birth. It is acknowledged that other definitions of this term are used for data collection and analysis. The definition used here broadens the scope of the term perinatal in line with understanding of mental health in pregnancy and following birth.

Rationale for the Guidelines

The development of these Guidelines is a first step in translating evidence into practice. The Guidelines address an area of considerable burden to women and their families. They are needed to broaden understanding of mental health care in the perinatal period, increase consistency of care, and improve support for women and their families in this period. It is hoped that the Guidelines will also encourage research to further inform practice.

Prevalence and incidence

Estimates of the prevalence of mental health disorders in the perinatal period vary widely depending on study parameters (Austin & Priest 2005), with results affected by characteristics of the sample (e.g. only first-time mothers), definition and measurement of disorder (e.g. screening tool or diagnostic interview; cut-off score used) and whether point or period prevalence is reported (Buist et al 2008).

Studies in Australia and internationally have consistently found significant rates of mental health disorders in the perinatal period. For example:

- a large Australian study (n=52,000) (including women from Aboriginal and Torres Strait Islander and non-English speaking backgrounds, rural and regional areas, and the public and private health sectors) found that around 9% of women experienced depression in the antenatal period and 16% in the postnatal period (Buist & Bilszta 2006);
- in a meta-analysis of 28 international studies, the point prevalence estimates for major and minor depression ranged from 6.5% to 12.9% (1.0% to 5.6% for major depression alone) at different trimesters of pregnancy and months in the first year after the birth, and the period prevalence showed that as many as 19.2% of women had a depressive episode in the first 3 months postpartum (7.1% for major depression) (Gavin et al 2005);
- in an Australian survey of women assessed postnatally using the EPDS (n=12,361), the point prevalence of women scoring more than 12 varied from 5.6% to 10.2%, depending on the State/Territory in which they were screened and whether they were recruited in public or private health care (e.g. 6.4% versus 3.6% respectively, in WA) (Buist et al 2008);
- in a recent Australian study (n=1,549), 20.4% of women assessed during late pregnancy and reviewed at 2, 4 and 6–8 months after the birth had an anxiety disorder (approximately two-thirds with comorbid depression) and almost 40% of women with a major depressive episode had a comorbid anxiety disorder (Austin et al 2010);
- analysis of the Swedish Medical Birth Registry from 1983 to 2000 (n=745,596), found an incidence of puerperal psychosis of 1.2 per 1,000 births to first-time mothers (Valdimarsdottir et al 2009).

Morbidity and mortality

Depression and related disorders affect the wellbeing of the woman, her infant and her significant other(s)[3] and have an impact on relationships within the family, during a time that is critical to the future health and wellbeing of children (Beck 1998; Halligan et al 2007). Mental health disorders have been identified as a leading cause of maternal morbidity and mortality in the UK (Lewis 2007) and as one of the top three causes of indirect maternal mortality in Australia (Austin et al 2007a).

Service delivery

Women usually see a range of different health professionals across the course of their pregnancy and the first year after the birth. While continuity of care and carer (Homer et al 2008) and a multidisciplinary collaborative approach are recognised as improving outcomes among women in the maternity setting, this model of care is not always available. In terms of service availability, progressively earlier discharge from hospital has increased demand for primary care support after women return home. There are many service gaps, such as limited availability of dedicated mother–infant units, and significant disparities between States and Territories, metropolitan and regional or remote areas, and between private and public systems. There are also issues around access and affordability and the suitability of existing approaches to care for some Australian women.

3 In these Guidelines, the term 'significant other(s)' is used to describe the person or people that the woman considers important to her care.

Variation in practice

There is considerable variation in identification and management of mental health disorders in the perinatal period in Australia (Buist & Bilzstra 2006). There is often a lack of assessment of psychosocial issues in this period.

Women's knowledge and attitudes

Recent evidence related to depression suggests that many women face significant barriers when they try to access services and support (Buist & Bilstza 2006):

- there is a high level of stigma felt by women who develop depression postnatally, with depression being seen as a failure rather than a condition;
- many women do not know whether what they are feeling is part of a normal adjustment to becoming a parent or is depression, and when they should seek help;
- many women deny that they have depression postnatally; and
- most women need the support of health professionals, family and friends to help them seek assistance for their depression.

Similar factors are likely to affect women experiencing other mental health disorders.

Challenges faced by specific population groups

There are specific needs and approaches required to address mental health and wellbeing in the perinatal period for groups marginalised either by distance, culture or both, including Aboriginal and Torres Strait Islander women and women from culturally and linguistically diverse backgrounds.

Application of the Guidelines

Purpose of the Guidelines

The Guidelines aim to:

- facilitate the early identification of depression and related disorders in the perinatal period and their effective management by health professionals;
- improve communication between health professionals and women and their significant other(s);
- assist health professionals to support women and their significant other(s) in making informed decisions;
- inform education and training of health professionals;
- assist implementation of effective approaches to perinatal mental health care; and
- help identify areas for further research.

Scope

These Guidelines encompass psychosocial and mental health issues known to have an impact on women and families during the perinatal period. These comprise a spectrum of disorders, ranging in severity from emotional distress to diagnosed depression, anxiety, bipolar disorder and puerperal psychosis. The main focus of the Guidelines is depression as there is a reasonable body of evidence about this condition in the perinatal period. However it is likely that findings can be extrapolated to women experiencing other conditions at this time. Where the evidence is specific to a certain condition, this is stated.

The Guidelines:

- are relevant to all women who are pregnant, planning a pregnancy or within the year following birth or being pregnant;
- specifically target women with an existing mental health disorder who are pregnant and those who develop a mental health disorder during pregnancy or the postnatal period;
- cover approaches to prevention, identification and treatment of depression and related disorders, (specifically anxiety, puerperal psychosis and bipolar disorder) in the perinatal period; and
- include discussion across the spectrum from distress through to severe disorder.

While the approach taken in the Guidelines includes consideration of the mother–infant interaction, the Guidelines do not cover infant mental health specifically. In addition, the Guidelines do not cover:

- the process of diagnosis or specifics of managing depression and related disorders in the perinatal period — appropriate guidelines for the general population should be used;
- co-occurring conditions related to substance use during the perinatal period;
- other aspects of care for women with uncomplicated pregnancies (including social and lifestyle factors such as domestic violence and smoking) — these will be addressed through national evidence-based Antenatal Care Guidelines being developed in parallel with these Guidelines; or
- interventions in service settings.

These Guidelines are intended for use within the existing health system, which currently classifies mental health disorders by symptoms rather than by causation and generally relies on a diagnosis for access to treatments. While the importance of aetiological/classification issues relevant to mental health and the potential risks and benefits associated with diagnostic labelling (Oddy et al 2009) are acknowledged, these issues are considered beyond the scope of the Guidelines. The biopsychosocial model underlying the Guidelines addresses factors contributing to mental health disorders including biochemical changes, psychological functioning, genetic predisposition, life events and social support issues. The focus of the Guidelines is on supporting women who are experiencing symptoms, whatever the cause.

Depression and related disorders are often further complicated by co-occurring with other mental health or physical conditions and/or in the context of ongoing psychosocial factors, such as domestic violence or substance use. While these Guidelines provide a basis for best practice, actual pathways to care will need to be developed at the local level, based on an individual woman's needs and the skills and services available in that setting.

Intended audience

The Guidelines are intended for all health professionals who contribute to the care of women during the perinatal period including midwives, general practitioners (GPs), obstetricians, neonatologists, paediatricians, maternal and child health nurses, Aboriginal and Torres Strait Islander health workers, practice nurses and allied health professionals. Others who may be involved include mental health nurses and other mental health professionals, including those working with families in the community (e.g. social workers, child protection agencies) and within the legal system.

The way in which different professionals use these Guidelines will vary depending on their knowledge, skills and role, as well as the setting in which care is provided.

Practical guidance derived from these Guidelines and intended for specific groups will be available from the *beyondblue* website. *beyondblue* has already developed materials on emotional health and wellbeing in the perinatal period for women and their families, fathers, and parents experiencing multiple births (see Appendix 6).

Implementation and review

beyondblue will draw upon various processes and channels to widely disseminate the Guidelines and practical guidance for specific groups to the relevant agencies and individuals. This will include health professionals, women and their families, and policy makers involved in influencing perinatal mental health policy and practice. Summaries of the Guidelines and commentaries will also be disseminated.

The Guidelines will be implemented within the context of widespread activity at national, jurisdictional and local level, including national policies (e.g. the Fourth National Mental Health Plan 2009–2014 and the National Agenda for Early Childhood 2007), the *beyondblue National Action Plan for Perinatal Mental Health* (NAP), the National Perinatal Depression Initiative (NPDI), and a range of self-help, support and advocacy services and resources at the local level.

beyondblue is extremely well-placed to instigate and foster communication between the guideline developers and communities of practice and interest in perinatal mental health. *beyondblue* will facilitate implementation of the Guidelines via online channels. These electronic versions will be updated periodically to include higher-level evidence as it becomes available. It is envisaged that a major review of the evidence will be undertaken within 5 years.

Under the NPDI, implementation frameworks will be designed for the main target groups (e.g. midwives, maternal child health nurses, GPs, psychologists), with specific consideration of particular groups such as people living in remote areas and Aboriginal and Torres Strait Islander people.

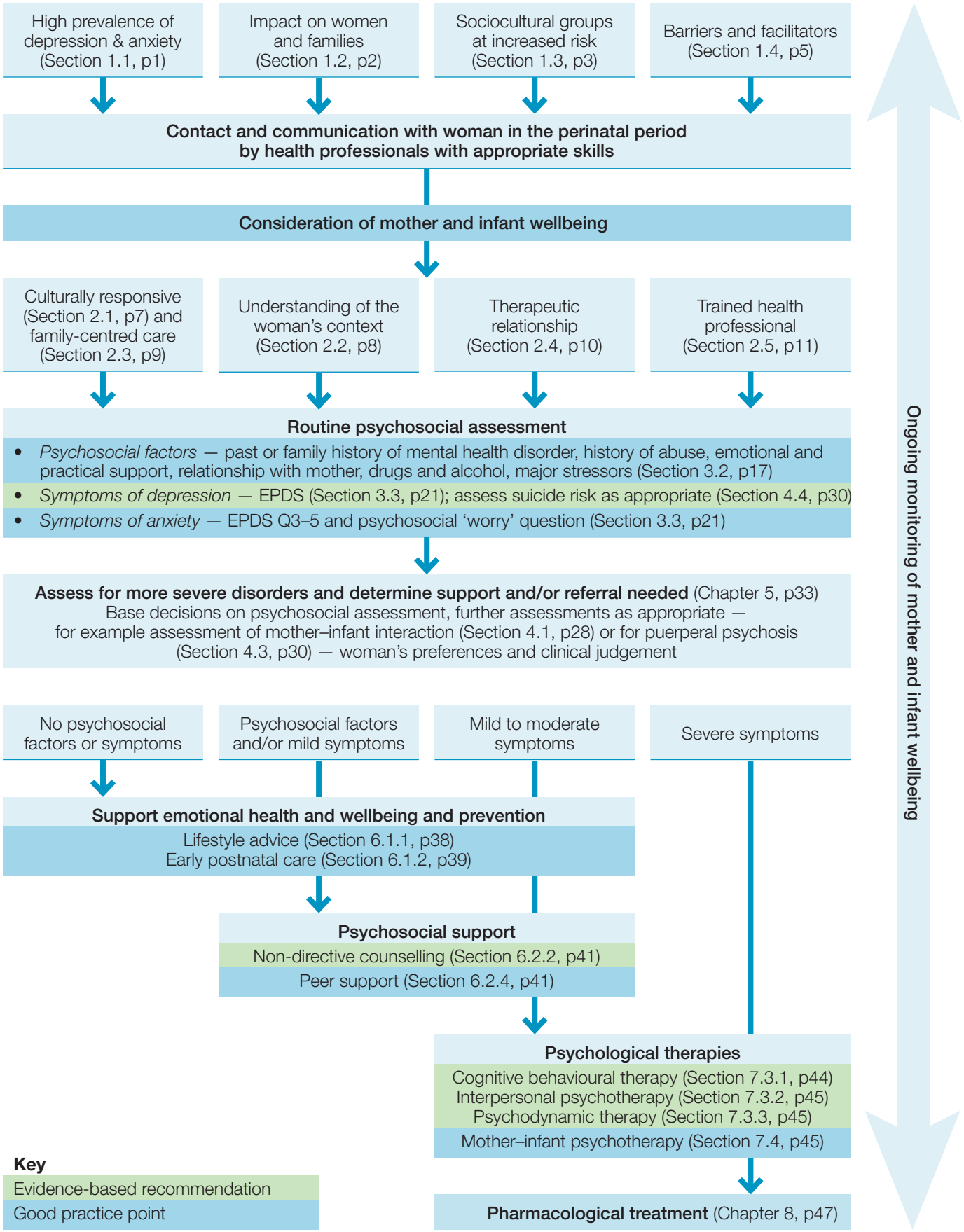
beyondblue has appointed an independent evaluator to assess the usefulness and uptake of the Guidelines, and to identify changes in clinical practice as a result of the release of the Guidelines.

Guideline implementation is discussed further in Appendix 2.

Structure of the Guidelines

The Guidelines are structured as follows:

- **Chapter 1** provides an overview of mental health in the perinatal period, including the spectrum of mental health disorders and their impact on women and their families, and highlights sociocultural groups at increased risk of depression and related disorders in pregnancy and early parenthood. Barriers and facilitators to effective care are also discussed.
- **Chapter 2** outlines key principles for effective care of mental health in the perinatal period: cultural responsiveness, understanding the woman's context, taking a family-centred approach, and maintaining a therapeutic relationship.
- **Chapter 3** outlines the evidence base for and process of psychosocial assessment, which includes assessing for psychosocial factors that affect mental health and for symptoms of depression and anxiety. These assessments, combined with clinical judgement, inform approaches to the woman's further care.
- **Chapter 4** describes other assessments that may be appropriate in the care of women and their families in the perinatal period, including assessing the mother–infant interaction, identifying any risk of suicide or risk of harm to the infant, and assessing for symptoms of puerperal psychosis.
- **Chapter 5** provides information on actions to be taken following assessments. These are based on clinical judgement of the need for comprehensive mental health assessment, the role that the primary care health professional can take in the woman's care and the need for referral for ongoing management.
- **Chapter 6** describes psychosocial approaches to supporting the mental health and wellbeing of all women in the perinatal period.
- **Chapter 7** outlines psychological therapies for which there is evidence of effectiveness for treating depression and anxiety in the perinatal period.
- **Chapter 8** summarises the evidence on the safety of pharmacological treatments in the perinatal period and includes guidance on decision-making about treatments, supporting informed decision-making and monitoring and follow-up.
- **Chapter 9** discusses existing models of care and the implementation of care pathways in Australia, including considerations specific to rural and remote areas.
- **Chapter 10** highlights areas for future research and development.
- The **appendices** provide further information about the development of the Guidelines, including the methodology for the systematic literature review and the public consultation process. Additional resources for health professionals and consumers are also listed.


High prevalence of depression & anxiety (Section 1.1, p1)
Impact on women and families (Section 1.2, p2)
Sociocultural groups at increased risk (Section 1.3, p3)
Barriers and facilitators (Section 1.4, p5)
Contact and communication with woman in the perinatal period by health professionals with appropriate skills
Consideration of mother and infant wellbeing
Culturally responsive (Section 2.1, p7) and family-centred care (Section 2.3, p9)
Understanding of the woman's context (Section 2.2, p8)
Therapeutic relationship (Section 2.4, p10)
Trained health professional (Section 2.5, p11)
Routine psychosocial assessment
• Psychosocial factors — past or family history of mental health disorder, history of abuse, emotional and practical support, relationship with mother, drugs and alcohol, major stressors (Section 3.2, p17)
• Symptoms of depression — EPDS (Section 3.3, p21); assess suicide risk as appropriate (Section 4.4, p30)
• Symptoms of anxiety — EPDS Q3–5 and psychosocial 'worry' question (Section 3.3, p21)
Assess for more severe disorders and determine support and/or referral needed (Chapter 5, p33)
Base decisions on psychosocial assessment, further assessments as appropriate — for example assessment of mother–infant interaction (Section 4.1, p28) or for puerperal psychosis (Section 4.3, p30) — woman's preferences and clinical judgement
No psychosocial factors or symptoms
Psychosocial factors and/or mild symptoms
Mild to moderate symptoms
Severe symptoms
Support emotional health and wellbeing and prevention
Lifestyle advice (Section 6.1.1, p38)
Early postnatal care (Section 6.1.2, p39)
Psychosocial support
Non-directive counselling (Section 6.2.2, p41)
Peer support (Section 6.2.4, p41)
Psychological therapies
Cognitive behavioural therapy (Section 7.3.1, p44)
Interpersonal psychotherapy (Section 7.3.2, p45)
Psychodynamic therapy (Section 7.3.3, p45)
Mother–infant psychotherapy (Section 7.4, p45)
Pharmacological treatment (Chapter 8, p47)
Ongoing monitoring of mother and infant wellbeing
Key
Evidence-based recommendation
Good practice point

1 Mental health in the perinatal period

1.1 Mental health problems in the perinatal period

Any of the mental health disorders can occur in the perinatal period (Austin 2004). Symptoms can predate conception and then continue into pregnancy, or start at any time after conception, birth or during the year following birth (Priest & Barnett 2008).

1.1.1 Antenatal period

While previous approaches to mental health in the perinatal period focused on 'postnatal depression', more recent studies suggest that:

- antenatal depressive symptoms are as common as postnatal symptoms (Austin 2004; Milgrom et al 2008);
- depression identified postnatally begins antenatally in up to 40% of women (Austin 2004); and
- anxiety disorders may be as common as depression in the perinatal period (Wenzel et al 2003; Austin & Priest 2005).

Antenatal depressive episodes can be a reaction to the pregnancy itself, to associated health issues or to other major life stressors. Depressive symptoms in pregnancy can also be due to a continuation or relapse of a pre-pregnancy condition — especially among women who stop taking medication on confirmation of pregnancy (Henshaw 2004; Oates 2006).

Antenatal anxiety may occur in response to fears about aspects of the pregnancy (e.g. parenting role, miscarriage, congenital disorders), or as a continuation of a pre-pregnancy condition and/or comorbidly with depression. Higher levels of self-reported anxiety or anxiety disorder in pregnancy increase the risk of depression postnatally (Austin et al 2007b).

1.1.2 Postnatal period

Non-psychotic disorders occurring in the postnatal period include depression, a range of anxiety disorders (including generalised anxiety, phobias, obsessive compulsive disorder and posttraumatic stress disorder [Rogal et al 2007], adjustment disorder, panic disorder and agoraphobia [Matthey et al 2003]). Psychotic disorders such as new onset puerperal psychoses are uncommon but may occur within 2–3 weeks of birth (Cohen & Nonacs 2005). Bipolar disorder may occur during pregnancy or after birth as a first episode or continuation or relapse from an episode before the pregnancy.

More women fulfill criteria for minor rather than major depression in the postnatal period. However, minor depression often occurs with anxiety and other disorders and a significant number of women who experience minor depression will develop major depression (Austin 2004). Depression experienced postnatally sometimes persists through more than one pregnancy — between 20% and 40% of women with a past episode of depression in the postnatal period will relapse after the birth of a subsequent child (Milgrom et al 1995; Austin & Priest 2005).

Complex perinatal presentations frequently include the confounding effects of childhood abuse (Buist et al 2008), drug and/or alcohol abuse (Allen et al 1998) and domestic violence (Bacchus et al 2004; Taft et al 2004).

1.2 Impact of mental health disorders in the perinatal period

Whether symptoms are mild, moderate or severe, maternal mental health problems are known to have a significant impact on all aspects of a woman's life, and also affect infants, significant others and families (Perinatal Mental Health Consortium 2008).

1.2.1 Impact on women

- Postpartum depressive symptoms combined with extreme fatigue and the additional responsibilities of a new baby can create difficulties in the woman's close relationships and in her capacity to care for her baby (Priest & Barnett 2008).
- As well as the suffering associated with compromised mental health, anxiety and depressive disorders are associated with relationship stresses that can lead to a loss of social networks and subsequent isolation if not resolved.
- Although mental health disorders are a leading cause of indirect maternal mortality, the suicide rate in the first postpartum year is lower than at other times (Boyce & Barton 2007). However, among women with a severe disorder, the risk increases at this time.
- In the longer term, depression may also have an impact on a woman's involvement in the workforce and her eligibility for life insurance, travel insurance or income protection insurance.

1.2.2 Impact on infants

Parental mental health is universally acknowledged as one of the key determinants for healthy development in infants (Murray & Cooper 2003). It is well-recognised that infant social, psychological, behavioural and cognitive development occurs in the context of a caregiving relationship and that the mother (or primary caregiver) and infant are a unit. When the relationship is good or 'good enough', mother and infant are sensitive, responsive and attuned to each other (Winnicott 1960). Attachment theory has increased understanding of the impact of the quality of this relationship on infant brain development and its contribution to later psychological functioning (Bowlby 1969; Fonagy et al 1994; Schore 2001; Siegel 2001; De Bellis et al 2002). During critical periods of brain development, an appropriate caregiving relationship is particularly important (Schore 2001).

- *Effects on the baby during pregnancy* — maternal distress during pregnancy influences obstetric and birth outcomes (Priest & Barnett 2008) and can adversely affect the developing fetal brain and thus influence infant behaviour (Glover & O'Connor 2002). Maternal anxiety is associated with difficult infant temperament (Austin et al 2005a), increased infant cortisol (Grant et al 2009) and behavioural difficulties in childhood (O'Connor et al 2002). Antenatal distress increases risk of attentional deficit/hyperactivity, anxiety, and language delay (Talge et al 2007), and of later mental health problems (O'Connor et al 2002).
- *Physical effects on the infant* — postpartum maternal mental health disorders have an impact on breastfeeding, infant nutritional status and health and growth rates.
- *Mother–infant attachment* — Having a caregiver who provides consistent, responsive care helps infants to learn to recognise the nature of their own emotions, and to regulate their own behaviour and emotional states (Bowlby 1951). When the mother is experiencing depression, the mother–infant relationship is more likely to experience difficulties and infants are at increased risk of developing insecure attachment and psychopathology (Murray & Cooper 1996; Misri & Kendrick 2008; Murray 2009; Tronick & Reck 2009). Insecure attachment, role modelling and poorer parenting techniques can lead to poor emotional and behavioural outcomes for children (Murray & Cooper 1997a; 1997b; Buist 1998) and impaired cognitive development (Milgrom et al 2004).

1.2.3 Impact on significant others

Most research on the impact of depression in the perinatal period on significant others has focused on male partners. There are similarities in the patterns and correlates of depression after the birth of a child for men and women (Deater-Deckard et al 1998). The adjustment to parenthood and an increased burden of care may affect men's ability to assist partners and build resiliency in infants. A partner's depression and/or anxiety may influence or contribute to maternal distress and mental health disorders (Perinatal Mental Health Consortium 2008). Depression in fathers in the postnatal period is also associated with the later development of mental health disorders in their children, independently of maternal depression (Ramchandani & Psychogiou 2009).

For either parent, living with a family member with a mental health disorder can affect relationships, work, education and social life, as well as physical and mental health. This complex series of interactions supports the need to consider the full family context and facilitate support for other family members.

While mental health assessment and care for significant others with depression in the perinatal period are not considered in these Guidelines, guidance on family-centred care is outlined in Section 2.3.

1.2.4 Impact on other children in the woman's care

Other children in the family may also be affected by a woman's compromised mental health. Younger children may be deprived of parental involvement in play and physical care, while older children may experience a lack of interest in their school progress, social activities and friends (Murray & Cooper 1996). Recurrent maternal depression is associated with increased risk for depression in adolescents, while rates of anxiety disorders in children of mothers depressed postpartum are elevated regardless of subsequent maternal depression (Halligan et al 2007). Options for supporting other children in the woman's care are outlined in Section 2.3.

1.2.5 Impact on extended family members

Severe depression during pregnancy or after the birth can also have an impact on members of a woman's extended family. For example, grandparents may be required to take on the role of carer for the infant and/or other children.

1.3 Sociocultural groups at increased risk of depression and related disorders in the perinatal period

Women from some sociocultural groups are more likely to develop distress or mental health disorders in the perinatal period for a range of reasons as outlined below (Buist & Bilszta 2006). Psychosocial factors affecting women generally are discussed in Section 3.2.

1.3.1 Aboriginal and Torres Strait Islander women

In 2007, Aboriginal or Torres Strait Islander women who gave birth represented 3.8% of all women who gave birth in Australia, accounting for 39.5% of all mothers in the Northern Territory and around 5% of mothers in Western Australia and in Queensland (Laws & Sullivan 2009). Because of their larger overall populations, there were more Aboriginal or Torres Strait Islander women who gave birth in Queensland (3,170), New South Wales (2,887) and Western Australia (1,752) than in the Northern Territory (1,484) (Laws & Sullivan 2009), but these comprised a smaller proportion of the State population.

In general, Aboriginal and Torres Strait Islander people experience higher rates of both social and emotional wellbeing problems and some mental health disorders than other Australians (Social Health Reference Group 2004). Factors such as lower life expectancy, child and family separations, incarceration and higher infant mortality rates contribute to the level of grief, loss, trauma and anger experienced by Aboriginal and Torres Strait Islander individuals, families and communities (ABS & AIHW 1999).

In addition to disrupted cultural wellbeing and the continuing inter-generational effects of trauma and loss, Aboriginal and Torres Strait Islander people experience high levels of recent life stressors. Respondents to the National Aboriginal and Torres Strait Islander Health Survey (2004–05) indicated that in the last year they, their family and/or friends had experienced the death of a family member or close friend (42%), serious illness or disability (28%) or alcohol-related problems (20%) (AIHW 2008).

In this context, it is clear that Aboriginal and Torres Strait Islander women are at higher risk of mental health problems, both generally and in the perinatal period, than women from the general population. High rates of maternal and infant morbidity and mortality, and high rates of Aboriginal and Torres Strait Islander infants taken into care within the first year of life, support the notion that rates of perinatal emotional distress and mental health disorder are high and the burden of care significant for Aboriginal and Torres Strait Islander communities (Swan & Raphael 1995; Perinatal Mental Health Consortium 2008). Additional emotional distress may be caused for Aboriginal and Torres Strait Islander women in remote areas if they cannot access regular antenatal care, or if they are from traditional communities and cultural birthing practices cannot be followed (Swan & Raphael 1995; Perinatal Mental Health Consortium 2008).

1.3.2 Women from culturally and linguistically diverse backgrounds

Of women who gave birth in Australia in 2007, 24.3% were born in countries other than Australia (Laws & Sullivan 2009). These women may experience isolation due to: language and culture; lack of literacy; inaccessibility or unacceptability of health services; cultural issues regarding male health professionals; extreme stigma regarding mental health problems or disorders, particularly in the maternal role; cultural value placed on the gender of the infant; lack of usual female family and peer support systems; conflict between traditional practices around birth and postnatal care and mainstream health services; lack of cultural competency among mainstream health professionals; history of grief, loss and trauma, in addition to migration; lack of entitlement to free health care; and lack of suitable resources (e.g. female interpreters) (McCarthy & Barnett 1996).

1.3.3 Women who have resettled in Australia under a refugee program

Newly arrived humanitarian refugees are likely to have experienced multiple levels of trauma. Families who have been forced to flee from their country of origin may have been subject to many traumas and disrupted attachments, including the loss of one or both parents or other family members and/or separation from extended family. During times of upheaval and displacement, social structures break down and people have limited experience of the normal routines of culture and society. The challenges of the resettlement process can be overwhelming. These include adapting to a new country, learning a new language, the pressure to succeed, changes in family roles and concern for family members still overseas, and living in precarious circumstances. Newly arrived refugees may also experience posttraumatic stress disorders, grief and/or physical injury (State Perinatal Reference Group 2008).

For these women, the increased stress associated with the perinatal period can add to an already difficult and challenging situation (State Perinatal Reference Group 2008). An unfamiliar environment, language difficulties, absence of support and lack of opportunities related to birth rites may place new mothers and their infants at a higher risk of mental health problems (State Perinatal Reference Group 2008).

1.3.4 Women living in regional, rural or remote areas

For women giving birth in Australia in 2007, the usual residence of almost 12% of all women and almost half of Aboriginal and Torres Strait Islander women was in an outer regional, remote or very remote area (Laws & Sullivan 2009). These women may be required to give birth away from their communities, which can lead to extra financial costs, lack of practical and emotional support, isolation, lack of integrated care between systems, inappropriate or culturally unsafe health care, and temporary separation from older children (Perinatal Mental Health Consortium 2008).

1.3.5 Adolescent mothers

Research on adolescent mothers shows increasing rates of depressive symptoms in the postnatal period, particularly for young women with more family conflict, fewer social supports, and low self-esteem (Reid & Meadows-Oliver 2007). Management of depression in young people is discussed and recommendations given in the *beyondblue Clinical Practice Guidelines: Depression in Adolescents and Young Adults*, which is available on the *beyondblue* website.

1.4 Barriers to and facilitators of mental health care

Health care provided during the perinatal period gives a framework for assessing psychosocial factors and symptoms of depression or related disorders and implementing early intervention and management strategies to optimise women's mental as well as physical health. However, there are system-based factors that may be barriers to access to an individual woman and her family having the most appropriate treatment (e.g. a specific intervention may not be available in rural and remote areas). As well, many women do not identify themselves as depressed or seek help and even when they do, not all health professionals identify depression or related disorders in the perinatal period (Buist et al 2008; Priest & Barnett 2008).

1.4.1 Barriers for women and their families

The systematic literature review identified a range of barriers to seeking help and further interventions for depression and related conditions in the perinatal period.

- *Knowledge barriers* — Women reported thinking that symptoms of distress were a normal part of motherhood, that they were unable to distinguish between normal levels of distress and distress that warrants help, or that they did not know where to seek help (Dennis & Chung-Lee 2006; McCarthy & McMahon 2008).
- *Attitudinal barriers* — There is reluctance to undertake assessment (Buist et al 2006; Gemmill et al 2006) or to disclose emotional problems to health professionals (particularly if women feel they should be able to cope on their own or do not want to be a burden), lack of motivation to seek treatment, fear of stigma attached to having emotional problems, and fear of the baby and/or other children being removed if the woman is diagnosed with a mental health disorder (Dennis & Chung-Lee 2006; Teng et al 2007; O'Mahen & Flynn 2008). Women experiencing symptoms may also initially minimise or hide symptoms if they feel they need to preserve an image of themselves as competent mothers (Abrams et al 2009).
- *Service barriers* — Barriers to accessing services include women's concerns about unhelpful responses from health professionals (including having their feelings dismissed or trivialised), negative prior experiences with and lack of trust in health professionals, concerns about privacy and confidentiality and unwillingness to take antidepressant medication (Jesse et al 2008; Kopelman et al 2008; Turner et al 2008; Abrams et al 2009) (this may also apply to other medications).
- *Logistical barriers* — Women reported having a lack of time, problems finding childcare, cost of treatment, transport problems and long waiting times for appointments (Kopelman et al 2008; O'Mahen & Flynn 2008; Turner et al 2008; Goodman 2009).
- *Non-specific barriers* — In one study, half of the women were unable to identify a specific reason why they would hesitate to use healthcare or community services for psychological help if they were aware of them (Ahmed et al 2008).

Communication problems and the perception that health professionals may not appreciate the impact of mental health disorders in the perinatal period may also be barriers to seeking help.

Additional barriers for Aboriginal and Torres Strait Islander women include language, cultural requirements, fear of alien practices, separation from women and family, and alienation, which can all contribute to significant levels of distress during pregnancy and especially during the birth process (Swan & Raphael 1995).

Additional barriers to effective mental health care for women from culturally and linguistically diverse backgrounds include lack of fluency in English, lack of familiarity with using an interpreter, lack of confidence and difficulty in accessing health care, cultural perceptions that depression is not a medical problem, family disapproval of help-seeking and lack of social networks (Teng et al 2007).

1.4.2 Facilitators for women and their families

The knowledge and attitudinal barriers identified above highlight the need for greater community awareness and education about the range of emotions commonly experienced in the perinatal period and the benefits of seeking help for depressive symptoms.

While there is evidence that overall mental health literacy in Australia has increased over the past decade (e.g. Goldney et al 2005), this cannot be attributed to any particular factor and there is a lack of evidence specific to increasing help-seeking behaviours for mental health concerns in the perinatal period.

The *National Action Plan for Perinatal Mental Health* acknowledges the need for broad community awareness, health promotion and education about perinatal mental health (Perinatal Mental Health Consortium 2008). Suggested strategies include media campaigns, psychoeducation for expectant and new mothers and their significant other(s) and provision of resources about mental health in the perinatal period to women and families.

Facilitators of perinatal mental health care for women from specific sociocultural groups are outlined in Section 2.1.

1.4.3 Barriers for health professionals

- *System barriers* — These included a lack of time and resources to focus on adequate assessment of depressive symptoms in the perinatal period, lack of access to expert mental health advice, and inadequate time for making contacts with services to refer women with identified symptoms of depression (Miller et al 2004; Connolly et al 2007; Horwitz et al 2007; Abrams et al 2009). These factors are also likely to apply to other mental health disorders in the perinatal period.
- *Health professional barriers* — These included lack of training and support, resulting in unfamiliarity with screening instruments to identify symptoms of depression, uncertainty about how to decipher the relationship between external social stressors and postpartum depression symptoms, incomplete knowledge of treatments for depression and limited availability of mental health services (Connolly et al 2007; Horwitz et al 2007; Abrams et al 2009). Anecdotal evidence suggests that lack of confidence and fear of confronting difficult situations may also impede health professionals in seeking to identify depression and related disorders in the perinatal period (*beyondblue* consultation workshops 2010).

Challenges for health professionals in supporting women from Aboriginal and Torres Strait Islander and culturally and linguistically diverse backgrounds include concern about not being equipped to provide adequate care because of language difficulties and differences in cultural background (Teng et al 2007).

Training and support for health professionals is discussed in Section 2.5.1.

2 Effective care of mental health in the perinatal period

Mental health disorders comprise a spectrum of disorders, ranging in severity from emotional distress to diagnosed mental health disorders including depression, anxiety, bipolar disorder and puerperal psychosis. A range of psychosocial factors increase a woman's likelihood of experiencing mental health disorders in the perinatal period — these include prior history of anxiety or depression, recent life stressors and lack of social support (see Section 3.2).

The balance of risk and protective factors for each individual influences outcomes for women and their families, along with the availability, access, uptake and response to support and treatment (Priest & Barnett 2008). Without treatment, adverse outcomes can result from emotional distress as well as from diagnosed mental health disorders (Cohen & Nonacs 2005).

While antenatal prediction of depression postnatally is not particularly accurate (Austin & Lumley 2003; Austin et al 2005b), assessing women for psychosocial factors and symptoms of distress during pregnancy and postnatal checks means that they can be monitored and, if necessary, linked with appropriate services.

This chapter outlines the basis for effective perinatal mental health care, outlining an overall approach to integrating mental health care into the routine perinatal care delivered by mainstream services. In Australia, this routine care is given mainly by primary care health professionals such as GPs, midwives, maternal and child health nurses and Aboriginal and Torres Strait Islander health workers, as well as by specialists such as obstetricians, neonatologists and paediatricians. These health professionals are also the starting point for pathways to secondary mental health care services and health professionals (e.g. psychologists, psychiatrists, mental health nurses).

2.1 Culturally responsive perinatal mental health care

The Australian population as a whole is diverse and the cultures of groups within this are dynamic and heterogeneous. While it is impractical to take a single approach to perinatal mental health care, taking a family-centred approach and having regard for the physical, mental, social, spiritual and cultural aspects of a woman and her community may assist women to feel safe in healthcare interactions (Nguyen 2008).

Aspects of healthcare provision that have been identified as promoting better outcomes for specific cultural groups should inform both individual interactions and broader service provision. The NHMRC *Cultural Competency in Health: A Guide for Policy, Partnerships and Participation* (NHMRC 2006) provides advice on integrating cultural issues into the planning and delivery of health care and services.

Aboriginal and Torres Strait Islander women

Factors that may assist in improving uptake of services and maternal mental health outcomes among women from Aboriginal and Torres Strait Islander communities include:

- involving an Aboriginal and Torres Strait Islander health worker, Aboriginal and Torres Strait Islander liaison officer or interpreter in the maternal health care team (the role taken will depend on knowledge and experience but may include administering assessments, home visits and assisting women to access follow-up) — consulting the woman about who she would like to be involved in her care may help to ensure that internal roles within the community are not compromised (e.g. family members are not appropriate interpreters);
- acknowledging the importance of involving extended family and kin (community) in decision-making (NSW Dept Community Services 2008);
- cultural competence of health professionals (AHMAC 2004);
- providing culturally appropriate educational materials (including local adaptation of materials);

- specific birth, parenting and young mother programs (Swan & Raphael 1995);
- where possible, providing services in a setting that is comfortable for the woman (e.g. Aboriginal and Torres Strait Islander staff are employed in a range of roles and there is evidence that Aboriginal and Torres Strait Islander people are welcome); and
- acknowledging the role of traditional healers.

Women from culturally and linguistically diverse backgrounds

Factors that have been identified as important to improving perinatal mental health care for women from culturally and linguistically diverse backgrounds, including women from refugee backgrounds, include (State Perinatal Reference Group 2008):

- social support, for example through ethnic-specific cultural liaison officers and women's groups to maintain cultural connections with the traditions, birthing ceremonies and rituals of women's countries of origin;
- cultural awareness among health professionals, including knowledge of cultural traditions and practices relevant to the perinatal period and associated expectations of the woman;
- perinatal education, including provision of linguistically appropriate information, parenting education workshops, and education for significant others on perinatal issues; and
- culturally appropriate resources, including resources in spoken format for women who lack literacy in their own languages and access to interpreter services during appointments or important events.

Good practice point

1 Primary and maternity care services should develop locally relevant strategies to ensure that they can provide appropriate, culturally responsive psychosocial care to all women in their communities.

2.2 Understanding the woman's context

Gender inequality and other social determinants appear to contribute to depressive symptoms in women (Chen et al 2005). A recent World Health Organization expert meeting identified the following factors as increasing the likelihood of maternal mental health problems in resource-constrained settings (WHO 2009):

- poverty and chronic social adversity, including limited education and opportunities for income generation, and crowded living conditions;
- gender-based violence, including emotional, physical and sexual abuse during childhood, family violence (including by intimate partners) and rape;
- lack of autonomy to make sexual and reproductive decisions;
- unintended pregnancy, especially among adolescent women;
- lack of empathy from partners and gender stereotypes about the division of household work and infant care;
- excessive workloads and severe occupational fatigue;
- lack of emotional and practical support or criticism from her mother, mother-in-law, or peer group;
- gender discrimination and devaluing of women; and
- stillbirth, miscarriage and complications of unsafe abortion, pregnancy and birth, and persistent poor physical health.

While many Australian women experience higher levels of economic prosperity, educational attainment and good health in comparison to women in developing countries, there are still many women living in poverty, subsisting on inadequate pensions, restricted by under-employment or low-income occupations and experiencing poor health outcomes (AWHN 2008). Gender inequalities persist, with women economically less secure, maintaining the primary carer role, and subject to high levels of violence (including physical and sexual assault, as well as emotional, psychological and financial abuse) (AWHN 2008). Within the diversity of women that make up the Australian population, there are some who face greater disadvantage in terms of health outcomes, including Aboriginal and Torres Strait Islander women, women in rural and remote areas, and women from culturally and linguistically diverse backgrounds, including refugees (AWHN 2008). The factors contributing to poor mental health in these groups are discussed in Section 1.3.

Many of these factors go beyond the scope of these Guidelines but are relevant to mental health more generally. Although addressing these factors is outside the role of primary care, taking them into account may lead to a fuller understanding of the individual woman's situation. Referral to other services (e.g. housing, social services) may also be a consideration.

2.3 Taking a family-centred approach

As discussed in Section 1.2, the impact of maternal mental health difficulties extends beyond the woman herself to the infant, significant other(s) and the family more broadly.

Considerations in the care of the woman and members of her support network include that:

- significant other(s) are usually a vital part of a woman's care and can be an important determinant of whether she seeks to access services;
- a woman should be asked about whom she would like to be involved in her care — some women may seek support only from their significant other (e.g. father of the infant) while others may have a wider family or social network;
- not all women will want others to be involved in their care (for example in cases of abuse) and consent should always be sought;
- providing education and information about perinatal mood disorders to significant other(s) and keeping them informed about the care pathway may help to reduce their anxiety and engage them constructively as a support to the woman;
- the woman's significant other may be affected by the woman's symptoms or by his or her own experience of the birth process or early parenthood — it may be appropriate to suggest that he or she seeks support or assessment;
- members of the woman's extended family (e.g. grandparents) may take on the role of carer for the woman and/or her children;
- managing the mother and infant together is recommended, as maternal mental health difficulties can disturb the mother–infant relationship, potentially with long-term effects and poor infant outcomes; and
- if family relationships remain impaired, depression may recur and the children may be further affected.

beyondblue has developed a range of booklets to support the emotional health and wellbeing of families in the perinatal period, including *Hey Dad. Fatherhood – First 12 Months* and *Taking Care of Yourself and Your Family*. These are available from the *beyondblue* website.

Good practice point

2 Involving members of a woman's support network in her care as early as practical provides opportunities for all involved to gain an understanding of the impact of pregnancy and early parenthood on emotional health and wellbeing. It also enables assessment of psychosocial factors affecting family members and family relationships.

Options for supporting members of the woman's family network are listed in Table 2.1.

Table 2.1 Support of family welfare

Family member	Options
Significant other and other family members	Psychosocial assessment of expectant fathers (Fletcher et al 2008) Detection of depressive symptoms among fathers (Friedewald et al 2005) Involvement in management decisions while managing the woman's privacy Psychoeducation (see Section 2.3.1) Mental health assessment Referral to mental health services or drug and alcohol services
Infant	Mental health assessment Mother–infant interaction assessment (see Section 4.1) Mother–infant psychotherapy (see Section 7.4)
Other dependent children (van Doesum & Hosman 2009)	Interventions focusing on the children (e.g. support groups, web-based interventions, information sessions) Interventions focusing on parents and family (e.g. psychoeducation, parent training)

2.3.1 Psychoeducation

Psychoeducation — discussion of emotional health and wellbeing, reinforced by provision of relevant and culturally sensitive information — is an important aspect of care in the perinatal period. Information provision is not a one-off event; it continues through all contacts during pregnancy and the postnatal period. Throughout this period, a family's needs for information changes, particularly if psychosocial factors or symptoms are identified or a decision concerning treatments is required.

There is Australian evidence on targeted education of women in the perinatal period that aims to change help-seeking behaviours. Programs attempting to prevent depression through antenatal education have had problems with poor initial uptake and high drop-out rates (Lumley et al 2004; Wheatley et al 2004). However, provision of targeted information in the form of a booklet — *beyondblue's Emotional Health during Pregnancy and Early Childhood* (*beyondblue* 2009a) — together with assessment using the EPDS during antenatal clinic visits improved help-seeking and mental health literacy (Buist et al 2007a). In a recent randomised controlled trial (Austin et al 2008), information provided in the same booklet was associated equally with a reduction in depression symptoms as an antenatal cognitive behavioural therapy group. Provision of the booklet was also cost-effective in terms of health professional time and did not require repeated attendance (Austin et al 2008).

Good practice point

3 Psychoeducation for women and, where appropriate, their significant other(s) should be a routine component of care in the perinatal period. This should include discussion of mental health and provision of educational materials (e.g. the *beyondblue Emotional Health During Pregnancy and Early Parenthood* booklet).

2.4 Maintaining the therapeutic relationship

Most women find pregnancy and the year following the birth to be a time of considerable emotional change. Providing psychosocial care during the perinatal period involves establishing and maintaining a *therapeutic relationship* between the health professional and the woman and her significant other(s). Key aspects of the therapeutic relationship include development of trust, confidence, mutuality, active listening and empowerment (Simpson & Creehan 2008).

It is important for health professionals to:

- understand the normal range of emotions common to various stages during the perinatal period so they can better identify distress and depressive symptoms if they occur;
- allow adequate time to assess, listen and build rapport;
- ascertain and address any misconceptions or needs for information;
- encourage women to express their feelings about pregnancy and motherhood, validate any concerns and support their emotional state;
- maintain a non-judgemental attitude; and
- assess women's support systems, including the attitudes and availability of her significant other and support network.

The relationship should be based on an open, collaborative process. Where mental health treatment is required, the collaborative process continues, with the setting of mutually agreed goals and tasks and regular support to help the woman to achieve those goals. If referral is necessary, the process should be managed in an empowering, supportive way.

Psychosocial adaptation to pregnancy and motherhood is a dynamic process. Women with depressive symptoms or identified depression are likely to move in and out of acceptance that there is a problem and that they can be helped. Attitudes to treatment can also change with time. As symptoms can be variable, women are likely to have both good and bad days and may react to their management plan accordingly. It is every woman's choice whether they accept interventions or not, unless they have severe symptoms and are a risk to themselves or others.

Assertive follow-up of women experiencing psychosocial factors and/or symptoms and those suspected of having a mental health disorder maximises opportunities to provide support — this involves seeing them regularly, giving them out-of-hours contact details, arranging their next appointment at the end of a session, and ensuring that the interval between appointments is based on clinical need (see also Section 5.2).

Good practice point

4 Health professionals should ensure that communication with women in the perinatal period is empathic and non-directive, and that discussions are woman-centred.

2.5 Overall approach to care

The approach to care outlined in these Guidelines involves routine assessment of psychosocial factors and symptoms of depression or anxiety as part of the broader care of women in the perinatal period (see Chapter 3). This assessment is not intended to predict depression or to replace clinical diagnosis. Where there are psychosocial factors contributing to depression and/or symptoms of depression or anxiety, triaging takes place to determine the need for follow-up care.

Every woman needing follow-up care requires a pathway to care, or 'map' by which she and her family can access the most appropriate psychosocial care and support. The pathway to care will depend on the level of severity of psychosocial factors and/or symptoms, together with consideration of the woman's preferences and specific circumstances. Whatever the setting and circumstances, care should involve collaborative decision-making about treatment options (see Sections 7.2 and 8.2), a strategy for relapse prevention, continuing monitoring and assertive follow-up. Models of care are discussed in Chapter 9.

The principles underlying effective provision of appropriate care include that:

- care is provided by health professionals with appropriate training and skills;
- health professionals recognise the limitations of their skills and expertise and refer woman to other professionals or services as appropriate;
- where possible, there is continuity of care or carer; and
- a multidisciplinary team approach is used where a range of professionals is available.

2.5.1 Training and support for health professionals

It is clear that health professionals need to have the skills and competency to effectively assess, diagnose, treat, support and refer women with mental health problems in the perinatal period.

The systematic literature review investigated perinatal training programs for primary care health professionals. The evidence in this area should be interpreted with caution due to the small number of studies identified, most of which were conducted outside Australia, and the fact that each training program had different aims and was only evaluated in a single setting. One of the training programs (from Australia) was aimed at GPs, while the other programs were designed for childhood nurses or health visitors. All but one of the eight studies (Prendergast & Austin 2001) reported that training programs attended by health professionals resulted in improved outcomes. Depending on the training program, the studies found:

- an improvement in health professional knowledge and skills, with health professionals who received training more likely to cover sensitive issues, carry out mental health assessments, detect depressive symptoms, and offer an intervention for depression (Gerrard et al 1993; Elliott et al 2001; Simons et al 2001; Appleby et al 2003; Gunn et al 2003); and/or
- better mental health outcomes in women under their care, measured using a variety of rating scales (Gerrard et al 1993; Elliott et al 2001; Ingadottir & Thome 2006; Morrell et al 2009).

The clinical significance of these results is not yet known, especially when taking a longer-term view.

In general, educational interventions are more likely to be effective in the longer-term if they are multi-faceted (i.e. interactive sessions and workshops rather than just lectures), involve ongoing reinforcement (e.g. mentoring and supervision) and be linked to changes in the system of care (i.e. supported by protocols and work systems) (Forsetlund et al 2009). Some skills can be obtained through general mental health education (e.g. learning woman-centred communication skills) whereas others require more specific skill-based training (e.g. assessment of mental health symptoms). Where possible, existing mental health training programs should be used.

It is acknowledged that not all health professionals will be trained in all areas of the field and that, in many areas, relevant training will not be available. Under the NDPI, basic elements of training will be available (at no cost) online or on DVD.

Whatever the level of training, skills need to be reviewed and updated regularly. Support from a health professional with specific expertise in mental health care will benefit those with more limited experience. This may be through networks with other health professionals (e.g. case conferencing, local special interest groups) or through telephone support lines such as the National Perinatal Support Line.

Recommendation	Grade	References
1 As a minimum, all health professionals providing care in the perinatal period should receive training in woman-centred communication skills and psychosocial assessment.	**C**	Gerrard et al 1993; Elliott et al 2001; Simons et al 2001; Appleby et al 2003; Gunn et al 2003; Ingadottir & Thome 2006; Morrell et al 2009

Good practice point

5 Health professionals involved in managing women's mental health during the perinatal period should seek ongoing support or mentoring.

2.5.2 Continuity of care

The benefits of continuity of care and carer when providing maternity services are well documented (Homer et al 2008). Continuity of care is a common philosophy and shared understanding of care pathways by all professionals involved in a women's care, with the aim of reducing fragmented care and conflicting advice. Continuity of carer is when a named professional, such as a midwife, who is known by the woman, provides all her care as appropriate, thus enabling the development of a relationship. Factors that may improve continuity of care include:

- sharing of information (e.g. through documenting of all assessments) — this can reduce duplication and the potential for findings of assessments to be misinterpreted (e.g. in a woman experiencing grief after a miscarriage);
- collaborative development of management plans — this ensures that they are matched to locally available resources;
- developing linkages and networks — these can assist in appropriate referral of women and facilitate the decision-making process and care pathways;
- adapting successful approaches to care — for example, case conferencing, shared care approaches, regular meetings of support services or special interest groups and collaborative discharge planning may improve continuity of care in some settings; and
- making use of existing funding mechanisms — for example the perinatal Access to Allied Psychological Services (ATAPS) program, which supports access to free psychological services (see Appendix 7).

2.5.3 Complex cases

Depression and related disorders can be further complicated if they co-occur with:

- other mental health conditions (e.g. eating disorder, personality disorder);
- physical conditions (e.g. diabetes, physical disability);
- ongoing sociocultural factors (e.g. refugee background, lack of secure housing, poverty); and/or
- psychosocial factors (drug and/or alcohol abuse, domestic violence).

Perinatal morbidity in the infant also heightens risks to the mother's mental health.

When there is complexity, it is important that women and infants are supported to receive psychological treatment and continued monitoring.

Wherever possible, management of complex cases will involve case planning by a multidisciplinary team. Close, assertive monitoring of these complex families is essential to minimise negative outcomes (see Section 5.2.2).

2.6 Practice summary — effective care of mental health in the perinatal period

Table 2.2 Overview of mental health care in the perinatal period

	Type of care	Aim	Actions	See
Mental health care in the perinatal period	Routine antenatal or postnatal care	Assessment for psychosocial factors	Provide information Assess psychosocial factors Identify appropriate health professional to provide follow-up care	Section 2.3.1 Sections 3.1 and 3.2 Chapter 5
		Detection of depression and anxiety symptoms	Provide information Administer EPDS Identify appropriate health professional to provide follow-up care	Section 2.3.1 Sections 3.1 and 3.3 Chapter 5
	Care of women experiencing psychosocial factors and/or symptoms	Prevention of depression and related disorders	Triaging to determine severity of psychosocial factors and/or symptoms Collaborative decision-making on psychosocial support Ongoing monitoring	Section 6.2
	Care of women experiencing depression or related disorders	Management of depression and related disorders	Triaging to determine severity of disorder Possible referral to a psychiatrist Collaborative decision-making on psychosocial/ psychological intervention and/or pharmacological treatment Ongoing monitoring	Section 5.2 Sections 7.2 and 8.2

Table 2.3 Checklist — having systems in place to ensure appropriate care for women

☐	**Support women's cultural safety in health care** — Develop local networks with health professionals who may be able to assist in the care of women from Aboriginal and Torres Strait Islander or culturally diverse backgrounds (e.g. an Aboriginal and Torres Strait Islander health worker) and with people who may assist with communication (e.g. interpreters).
☐	**Establish context** — Gain a full understanding of a woman's situation by exploring her exposure to social factors that may increase the likelihood of mental health problems.
☐	**Take a family-centred approach** — Ask women who they would like to be involved in their care and, with the woman's consent, seek this involvement early. Be aware of the emotional wellbeing of significant others and offer support if needed.
☐	**Have appropriate information available** — Promote awareness of depression and related disorders in the perinatal period (e.g. through posters in waiting rooms). Have available written information on the subject that is suitable to women and their families in your community (e.g. locally adapted materials, translations).
☐	**Identify means of accessing care in your setting** — When appropriate services are not available locally seek alternative means of accessing care (e.g. through telemedicine, support lines and online services). While there is no single approach to matching available resources to effective care provision, explore existing models that have worked in your community.
☐	**Consider complexity** — For women with a co-occurring mental health or physical condition or ongoing sociocultural or psychosocial stressors, explore options for case planning by a multidisciplinary team.
☐	**Consider risk of harm to woman or infant** — In all contacts with women in the perinatal period, regard should be given to the wellbeing and safety of the woman and infant.
☐	**Develop referral pathways** — Develop a local plan, identifying appropriate health professionals (e.g. GPs, mental health nurses) and support groups that are accessible to women in your area. Have processes in place to follow-up on referrals.
☐	**Develop a professional support network** — Identify health professionals and resources that may assist you, women and their significant others with specialist advice and support.

3 Psychosocial assessment

This chapter describes routine psychosocial assessment of women during the perinatal period as a part of broader maternity care. Psychosocial assessment aims to identify:

- the presence of psychosocial factors that are known to be associated with an elevated likelihood of mental health disorders in the perinatal period; and
- symptoms of depression and/or anxiety, using the Edinburgh Postnatal Depression Scale (EPDS).

The evidence for the two aspects of psychosocial assessment is discussed separately in Sections 3.2.1 and 3.3.1. Other assessments carried out to ensure the wellbeing and safety of the woman and infant are discussed in Chapter 4. Chapter 5 outlines considerations when assessments indicate a need for further assessment, referral or intervention.

In most settings, psychosocial assessment can be readily integrated into routine perinatal care. Many of the psychosocial factors included are already explored as part of routine care (e.g. women are asked about drugs and alcohol and about domestic violence), and additional questions and the EPDS can be included in the clinical interview. Some consultations will involve both aspects of assessment while others will involve only the EPDS — it is recommended that psychosocial factors are assessed once in the antenatal and once in the postnatal period to allow for psychosocial changes over the time period, and that the EPDS is administered at least once and preferably twice in each period, and as required for monitoring purposes.

Exactly how psychosocial assessment is integrated locally will depend on the setting and circumstances. Key considerations for service provision include:

- who will conduct the assessments and when;
- whether appropriate care pathways are available within the service (for women experiencing mild depression through to those with complex comorbidities);
- mechanisms for follow-up and referral; and
- how information can be shared to improve continuity of care.

3.1 Considerations before psychosocial assessment

The following considerations are fundamental to the process of routine psychosocial assessment in the perinatal period.

- Before psychosocial assessment is carried out, systems need to be in place to ensure that appropriate health professionals are available to provide follow-up care if required and to assist if there are concerns for the safety of the woman, the fetus or infant or other children in the woman's care. Notification to the relevant child protection agency may be a consideration. Health professionals may benefit from identifying other professionals from whom they can seek advice or support regarding mental health care in the perinatal period (see Section 2.5.1).
- A range of health professionals will be involved in the care of women in the perinatal period, including midwives, maternal and child health nurses, GPs, allied health professionals and Aboriginal and Torres Strait Islander health workers. Psychosocial assessment should be undertaken by trained health professionals (see Section 2.5.1) who have the knowledge and skills to undertake the assessment, identify the level of support needed, provide health promotion and refer women to appropriate services if required.
- Women need to feel safe during the assessment, so consideration should be given to other people who may be present. While the presence of significant others is often helpful, sensitivity is required about whether it is appropriate to continue with psychosocial assessment while they are in the room (e.g. if domestic violence is suspected). Postnatal assessments also provide an opportunity to view the mother–infant relationship (see Section 4.1).

- Before psychosocial assessment takes place, the woman should be given an explanation of the purpose of the assessment (including that it is part of normal care and will remain confidential) and asked for her consent. This consent can be readily integrated with consent processes for existing routine antenatal and postnatal care procedures. If a woman does not consent to assessment, this should be documented and assessment offered at subsequent consultations. It should also be explained that confidentiality may not be kept if there is a concern that the woman may harm herself or another person, but that in this situation only information relevant to the risk will be shared.
- Decision-making about the need for and type of follow-up mental health care is based on the woman's preferences and clinical judgement. The process is not diagnostic; rather it aims to ensure that women who would like help with their distress or symptoms, or who develop depression or a related disorder, will receive the care they need.
- Not all women will want or need further monitoring or mental health assessment. Providing information and encouraging continuing contact with an appropriate health professional may support women in seeking further assistance.
- Ideally, ongoing mental health care in the perinatal period is provided by a woman's regular GP. However it is acknowledged that not all women have access to this type of care or choose it when it is available. Women should be assisted in identifying a health professional with the skills, knowledge and cultural competence to provide appropriate ongoing care.
- Continuity of care is an important aspect of effective care (see Section 2.5.2). As many women see a number of health professionals during pregnancy and early parenthood, assessments should be documented and relevant information shared with the next health professional providing care to the woman (e.g. midwife passes information to maternal and child health nurse).

Good practice point

6 Clinical judgement is central to decision-making about further support and/or referral, as it informs the interpretation of answers to the psychosocial factor assessment and scores derived from the EPDS.

3.2 Assessment of psychosocial factors

Some women may be more vulnerable to mental health disorders in the perinatal period due to a combination of biological, genetic, physiological or social factors (Fisher et al 2002; Boyce 2003). Assessment of psychosocial factors aims to identify these women, so that psychosocial support can be provided and outcomes for women improved.

3.2.1 Summary of the evidence

Tools developed with the aim of identifying psychosocial factors in the antenatal and postnatal periods, include the Antenatal Psychosocial Health Assessment (ALPHA), the Antenatal Psychosocial Questionnaire (APQ), the Pregnancy Risk Questionnaire (PRQ) and the Predictive Index. Evaluation of these tools through the systematic literature review[4] identified the following:

- the PRQ is the only tool that has an adequate sensitivity and specificity but its positive predictive value (PPV) is too low for it to be suitable for prediction of depression postnatally. However, it appears to measure what it is intended to measure and may be useful in identifying women with a greater likelihood of developing depression in the postnatal period (Austin et al 2005b);
- the ALPHA and Predictive Index have a very low sensitivity and are unable to predict depression in the majority of women (Cooper et al 1996; Carroll et al 2005; Blackmore et al 2006);
- the ALPHA may facilitate communication with women and therefore improve their clinical management (Carroll et al 2005; Blackmore et al 2006); and
- no studies were identified that evaluated the effectiveness of the APQ.

4 The process of the systematic literature review, the questions asked and the evidence summaries developed around these questions are included in Appendix 3.

In summary, there is currently insufficient evidence to support or dispute the use of a specific tool for assessing risk for depression or related disorders in the antenatal period. No evidence was identified that any of the tools had been validated in culturally diverse populations, or that the use of these tools improves referral or relevant outcomes among women in the perinatal period.

While the use of psychosocial assessment tools in improving outcomes is not currently supported by evidence, enquiry related to certain psychosocial factors of a significant nature is endorsed by other relevant clinical practice guidelines (SIGN 2002; British Columbia Perinatal Health Program 2003; WA Statewide Obstetric Unit 2006; NICE 2007; NSW Dept Health 2009). These include:

- past history of mental health disorders;
- available support;
- current or past abuse/violence; and
- current life events (major stressors).

These domains of enquiry were also supported by the findings of a large Australian prospective study (Milgrom et al 2008).

Some of the clinical practice guidelines also endorse enquiry relating to current drug and alcohol use and family history of alcohol use (British Columbia Perinatal Health Program 2003; NSW Dept Health 2009). The WA Department of Health guidelines limit this enquiry to a family history of alcohol use. The SIGN guidelines limit family history to affective psychosis only.

3.2.2 Assessment of psychosocial factors contributing to depression and related disorders in the perinatal period

The domains of enquiry outlined below were developed based on the available evidence, clinical expertise and the recommendations of other relevant clinical practice guidelines. They aim to:

- provide a framework for incorporating assessment of psychosocial factors when interviewing women early in the antenatal or postnatal periods; and
- identify psychosocial factors without detracting from the normal experiences of pregnancy and motherhood or highlighting the potential for depression and related disorders to occur in the perinatal period.

Assessment of psychosocial factors allows identification of a multiplicity of contributors to mental health problems. The number and type of psychosocial factors identified influences the care pathway, with more approaches or interventions needed to support women experiencing multiple psychosocial factors. This may include referral to other specialist services (e.g. drug and alcohol services).

The questions outlined below can be used as the basis of discussion about psychosocial factors. The questions may need to be adapted to the individual situation (e.g. talking about physical rather than psychological symptoms when assisting women from some cultural groups).

Discussion need not necessarily be restricted to the key questions and may include the woman's wider psychosocial context (see Section 2.2). Wherever possible, women should not be asked about factors that another health professional has already recently assessed.

As with any consultation, the longer the discussion, the greater the rapport that is likely to develop between the woman and health professional. This increases the probability that the woman will feel able to speak openly and any psychosocial factors will be identified. While example questions are given below, their use will depend on the training and skills of the health professional. Best practice is to use a range of styles of questioning; for example, using a closed question to initiate discussion about an area, then open-ended questions to seek further detail and explore the woman's perspective. The example questions can be used to guide the discussion, with further enquiry made if the woman affirms the presence of a psychosocial factor. If a semi-structured approach is preferred, the sample form in Appendix 4 can be used. Whatever the process used to elicit information, it is important that the health professional knows how to respond if psychosocial factors are identified and that the woman is offered assistance with any issues she identifies.

Good practice point

7 As early as practical in pregnancy and 6–12 weeks after a birth, all women should be asked questions around psychosocial domains as part of normal care. If a woman affirms the presence of psychosocial factors, she should be asked whether she would like help with any of these issues.

Past or present mental health disorders

Past history of mental health disorders, including previous puerperal episodes, and current mental health disorder or symptoms, consistently show reasonable predictive value, particularly for the development of depression, psychosis and recurrence of bipolar disorder (NICE 2007). There is also some suggestion that family history of psychosis in the postnatal period increases risk (NICE 2007). The risk associated with family history depends on the closeness of the relationship and the severity of the condition.

Example questions and notes

1 *Have you ever had a period of 2 weeks or more when you felt particularly low or down?*

2 *Do you sometimes worry so much that it affects your day-to-day life?*

If the woman answers yes to either of these questions, ask if she received treatment for these negative feelings.

3 *Have you ever needed treatment for a mental health condition such as depression, anxiety disorder, bipolar disorder or psychosis?*

If the woman answers yes, ask when this was and identify treatments.

4 *Has anyone in your immediate family (e.g. grandparents, parents, siblings) experienced severe mental health problems?*

If the woman answers yes, identify whether these have included significant depression, bipolar disorder, psychosis, self-harm or suicide attempts, or drug and alcohol use.

Past or current physical, sexual or psychological abuse

Childhood sexual, emotional or physical abuse is associated with adult psychopathology, including depression, anxiety and low self-esteem in the postnatal period (Buist 1998). An abusive background may affect the woman's relationship with her infant (Buist 1998). Research on the effects of current abuse on mother–infant attachment has shown that the more serious the level of partner violence, the higher the likelihood of insecure (specifically disorganised) attachments. In these circumstances, the baby does not develop a consistent or coherent strategy for obtaining help and comfort from his or her mother (Zeanah et al 1999).

Discussion of previous or current sexual, physical or emotional abuse requires rapport between the health professional and the woman. Women with a history of abuse may not speak up when the subject is first raised but may choose to open up later when they feel sufficient trust and confidence in the health professional, possibly at a subsequent visit. Use of an indirect rather than a direct approach to questioning may facilitate communication. Enquiring about a history of violence or abuse during visits in both the antenatal and postnatal periods ensures that the question is asked, even if the woman sees different health professionals at different times.

Example questions and notes

5 *When you were growing up, did you always feel cared for and protected?*

6 *If you currently have a partner, do you feel safe in this relationship?*

Before the question is asked, it is important that the health professional has a plan as to how to respond to a negative response, including referral as appropriate.

If the woman answers no to either of these questions, offer information about relevant support services.

Current drug and/or alcohol use

Current drug and/or alcohol use is usually asked about during routine interviews during pregnancy and after a birth because of the potential effects on the health of both mother and child. This enquiry is particularly important in assessing factors that may contribute to mental health problems due to:

- the relationship between mental health issues and drug and alcohol abuse (e.g. drugs and alcohol may be used as a means of coping with mental health issues); and
- the frequent association between physical and emotional abuse and drug and alcohol misuse (Oei et al 2009).

If a woman is also asked about her partner's use of alcohol or drugs, she may be more willing to discuss her partner's issues, which may provide insight into the relationship and also encourages open discussion.

Example question and note

7 *Do you or others think that you (or your partner) may have a problem with drugs or alcohol?*

If the woman does not have a partner, the question should be reworded accordingly.

Recent life stressors

High scores on 'current life events' scales are associated with depression in the perinatal period (Eberhard-Gran et al 2002; Dennis et al 2004) and may interact with vulnerability factors (O'Hara et al 1991). Important stressors include negative life events and stressful events associated with pregnancy and birth (Eberhard-Gran et al 2002) and the stress of a new child (e.g. ill health, family demands) (Leigh & Milgrom 2008). Women who experience multiple births (Choi et al 2009), conceive through IVF (Gelbaya 2010; Volgsten et al 2010) or have polycystic ovarian syndrome (Mansson et al 2008; Deeks et al 2010) may be more likely to develop depression. Other events that may be considered as stressors include bereavement, illness and relationship problems. Two or more stressful life events during the year prior to pregnancy have been associated with recurrent or sustained depressive symptoms in early pregnancy and the postnatal period (Rubertsson et al 2005).

For women who experience multiple stressful events (e.g. women entering Australia on a refugee program), depression may be overlooked, either because the woman may consider her feelings to be a 'normal' reaction to the events or because of a lack of acceptance of depression as a disorder.

Example question and note

8 *Have you had any major stressors, changes or losses in the last 12 months (e.g. moving house, financial worries, relationship problems, loss of someone close to you, illness, pregnancy loss, problems conceiving)?*

If yes, identify the impact of these changes and how well the woman felt she coped.

Quality of a woman's attachment with her own mother

Insecure attachment with a woman's own mother may contribute to depression in the perinatal period. A woman's own experience as a child and the mental image of parental relationships that she brings to her role as mother is likely to affect how she anticipates, responds to and interprets her own infant's attachment behaviour (NSW Dept Community Services 2006).

Example question and note

9 *When you were growing up, was your mother emotionally supportive of you?*

The approach to this question will depend on the type of health professional (e.g. a GP may use a genogram to gather this information).

Current practical and emotional support

The availability of support (Milgrom et al 2008; Dennis et al 2009), in particular, practical and emotional support from her mother and significant other (Dennis & Ross 2006; Milgrom et al 2008), appears to be crucial in protecting against mental health disorders in the perinatal period. The support a significant other provides has direct effects on the woman's wellbeing and indirect effects on the infant (Marks & Lovestone 1995). Western societal expectations and structure can increase isolation through distance from support and family and the need to return to work soon after the birth (Buist 2009).

Asking women about available support and to specifically nominate people who could give them support encourages them to think about who they could call on and provides the health professional with insight into true support available to the woman (e.g. if the woman does not mention her partner, the health professional may be given some insight into their relationship). Qualifying the type of support ensures that the woman considers both practical and emotional support. Using a hypothetical approach is likely to lessen any perception of pressure, accusation or delving.

Example questions and notes

10 If you found yourself struggling, what practical support would you have available? Who could help provide that?

11 If you found yourself struggling, what emotional support would you have available? Who could help provide that?

Note that women may interpret terms such as struggling or support differently. Health professionals should use their own judgement and adapt the suggested wording accordingly.

If the woman has not mentioned a partner and you know that she has one, you may like to ask her what support she gets from him or her.

3.3 Assessment for symptoms of depression and anxiety

Detection of symptoms of depression or anxiety in the perinatal period enables suitable follow-up, thus improving outcomes for women. This requires an approach that recognises that distress may develop into depression and/or anxiety and that severity of symptoms may escalate over the perinatal period.

3.3.1 Summary of the evidence

A number of detection tools have been evaluated for their effectiveness in identifying depression in the perinatal period, including:

- Centre for Epidemiological Studies Depression Scale (CES-D);
- Edinburgh Postnatal Depression Scale (EPDS);
- Depression, Anxiety and Stress Scale (DASS);
- Postnatal Depression Screening Scale (PDSS);
- Patient Health Questionnaire nine-item scale (PHQ-9);
- PHQ-2 (or Whooley questions); and
- Kessler Psychological Distress Scale (K10).

The systematic literature review identified 68 publications that evaluated the EPDS, PDSS, PHQ or K10. No publications that evaluated the CES-D or DASS met the systematic review inclusion criteria. The vast majority of the publications related to depression; only two publications exclusively assessed the ability of the EPDS to detect anxiety disorder. No publications that assessed detection of puerperal psychosis or bipolar disorder were identified.

Evaluation of the available evidence identified that:

- there was no evidence located that the CES-D, DASS, K10 or PHQ-9 are appropriate for detecting symptoms of depression in the antenatal or postnatal periods;

- in the antenatal period, the EPDS (Murray & Cox 1990; Areias et al 1996; Adouard et al 2005; Adewuya et al 2006; Felice et al 2006; Su et al 2007; Rowel et al 2008) and PHQ-2 (Bennet et al 2008) both had a large area under the receiver operator curve (ROC) (EPDS 0.83–1.00; PDQ-2 0.80–0.83) in the studies available, with the EPDS having superior performance;
- in the postnatal period, the majority of the publications reported that the English-language version of the EPDS had a high sensitivity and specificity (Cox et al 1987; Harris et al 1989; Carothers & Murray 1990; Murray & Carothers 1990; Boyce et al 1993; Thompson et al 1998; Barnett et al 1999; Leverton & Elliot 2000; Beck & Gable 2001a; 2001b; Murray et al 2004; Milgrom et al 2005; Werrett & Clifford 2006; Clarke 2008; Hanusa et al 2008), and consequently can be considered an appropriate tool for assessing women for symptoms of depression at this time;
- there was insufficient evidence to support use of a tool to detect anxiety symptoms in the perinatal period (Matthey et al 2001; Miller et al 2006; Navarro et al 2007; Rowe et al 2008); and
- no evidence was found that the performance of these tools was significantly different when evaluated in culturally diverse populations.

Most publications recommended an EPDS score of ≥12 or ≥13 for detecting possible major depression; the optimal score for major or minor depression ranged from >4 to ≥13 depending on the cultural group being evaluated. A score of 13 or more can be considered a good marker for the need for further monitoring, particularly if psychosocial factors are also identified. A score of 13 or more, using the English version of the EPDS, provides balance between sensitivity and specificity, although the positive predictive value is only 50% (Murray & Cox 1990).

All publications that assessed the acceptability and barriers to acceptability of detection tools related to the EPDS (Shakespeare et al 2003; Buist et al 2006; Gemmill et al 2006; Poole et al 2006; Buist et al 2007b; Leigh & Milgrom 2007; Mason & Poole 2008); however, many issues identified apply to the assessment process itself. Most women and health professionals reported a high level of acceptability. Although a number of barriers to acceptability were identified, women and health professionals acknowledged the importance of assessment.

While there are no cost-effectiveness data relevant to the Australian context, costs related to introducing routine psychosocial assessment (including undertaking psychosocial assessment, health professional training and devising local pathways to care) were estimated as part of *beyondblue's National Action Plan for Perinatal Mental Health* (NAP) and are being considered in the implementation of the National Perinatal Depression Initiative (NPDI).

3.3.2 Assessing symptoms of depression and anxiety in the perinatal period

Detecting possible depression and related disorders in the perinatal period relies on clinical judgement and experience as part of the broader, ongoing care of women. The aim of the process is not to form a diagnosis, but to identify women who may benefit from further follow-up. Use of an assessment tool complements this process but may be inappropriate in some circumstances (e.g. some cultural situations) or may not be acceptable to the woman being assessed; women also have the right to decline assessment.

There is a large body of evidence (including validation in a wide range of culturally diverse populations, acceptability to consumers and health professionals and impact on referral outcomes) to support the use of the EPDS to detect symptoms of depression (but not of other mental health disorders) in this context.

Detection of depressive symptoms in the antenatal period

While the EPDS was developed for use in the postnatal period, it is administered both antenatally and postnatally. Antenatal evaluation using the EPDS is generally associated with an adequate sensitivity and specificity to detect possible major depression.

However, the score used for detecting possible major depression in the antenatal period varies between studies, ranging from 13 to 15, and the evidence is not robust. In the absence of clear evidence, a score of 13 or more is suggested as a 'flag' for further follow-up as:

- fewer women, including those who under-report, will 'slip through the gap';
- while it may lead to the EPDS being administered to more women for a second time, experience in some jurisdictions shows that numbers are not that much greater than when a higher score is used; and
- this is consistent with the score used in the postnatal period.

Due to the uncertainty around an appropriate score at this time, watchful waiting and repeat administration of the EPDS after 2–4 weeks are advised. Decision-making on further follow-up after the second EPDS should be based on clinical judgement and take into account psychosocial factors as well as the EPDS score. Further discussion of the interpretation of EPDS scores is given below.

As more women are administered the EPDS, there will be greater clarity about appropriate responses to scores in the antenatal period. Further research, including a consistent national approach to data collection in this area, is needed.

Recommendation	Grade	References
2 The EPDS should be used by health professionals as a component of the assessment of all women for symptoms of depression in the *antenatal* period.	**B**	Murray & Cox 1990; Areias et al 1996; Adouard et al 2005; Adewuya et al 2006; Felice 2006; Su et al 2007; Rowel et al 2008

Good practice point

8 Consider a score on the EPDS of **13** or more for detecting symptoms of major depression in the *antenatal* period.

Detection of depressive symptoms in the postnatal period

Postnatal evaluation using the EPDS is associated with a high sensitivity and specificity. An EPDS score of at least 13 is most commonly used to identify possible major depression in the postnatal period.

Recommendations	Grade	References
3 The EPDS should be used by health professionals as a component of the assessment of all women in the *postnatal* period for symptoms of depression or co-occurring depression and anxiety.	**B**	Cox et al 1987; Harris et al 1989; Carothers & Murray 1990; Murray & Carothers 1990; Boyce et al 1993; Thompson et al 1998; Barnett et al 1999; Leverton & Elliot 2000; Beck & Gable 2001a; 2001b; Murray et al 2004; Milgrom et al 2005; Werrett & Clifford 2006; Clarke 2008; Hanusa et al 2008
4 A score of **13** or more can be used for detecting symptoms of major depression in the *postnatal* period.	**C**	

Detection of anxiety symptoms in the perinatal period

Although the EPDS was specifically developed to detect of symptoms of depression, there is evidence to support its use in the detection of symptoms of anxiety, taking into consideration the woman's scores on questions 3, 4 and 5 and applying clinical judgement (Matthey 2008; Phillips et al 2009).

Good practice point

9 Health professionals should be aware that women who score **13** or more on the EPDS may be experiencing anxiety, either alone or co-occurring with depression. Decision-making about further assessment for anxiety should take into account the woman's answers to questions 3, 4 and 5 of the EPDS and her response to the psychosocial assessment question about 'worrying'.

Cultural considerations

Scores used to identify possible depression in Aboriginal and Torres Strait Islander and culturally and linguistically diverse populations are generally lower than those used in the general population. For Aboriginal and Torres Strait Islander women, the score may be influenced by the woman's understanding of the language used, mistrust of mainstream services or fear of consequences of depression being identified. Translations of the EPDS developed in consultation with women from Aboriginal communities have been found to identify a slightly higher number of women experiencing symptoms of depression (Hayes et al 2006; Campbell et al 2008).

Cultural practices (such as attending the consultation with a family member) and differences in emotional reserve and the perceived degree of stigma associated with depression may also influence the performance of the EPDS in women from culturally and linguistically diverse backgrounds.

Translated versions of the EPDS are available through the NPDI.

Information provision around the EPDS

The EPDS is generally administered in the presence of a health professional or immediately before a consultation. Before the EPDS is administered, the aims and nature of the assessment should be explained (either verbally or in writing) to allay any perceptions the woman may have that her capacity to cope with pregnancy or parenthood is being questioned. This includes highlighting that a score that suggests she may benefit from follow-up care does not mean she will develop depression.

Explanation should also be provided on how to complete the questionnaire (select appropriate response for each question) and that the woman should select the responses that are closest to her feelings *over the previous 7 days*, not just on that day.

Good practice point

10 The non-diagnostic nature of the EPDS, its purpose (identification of women who may benefit from follow-up care) and the fact that it relates to the previous 7 days (not just that day) should be clearly explained to all women by the administering health professional.

Timing of assessment with the EPDS

The timing of antenatal and postnatal assessments should reflect available resources and existing contacts between the woman and the health professionals caring for her. In the antenatal period, obvious contact points are the booking-in visit and the 28–30 week visit. Postnatal assessment may be integrated into routine maternal and infant checks.

Good practice point

11 All women should complete the EPDS at least once, preferably twice, in both the *antenatal* period and the *postnatal* period (ideally 6–12 weeks after the birth). Administration of the EPDS can be readily integrated with existing routine antenatal and postnatal care.

Administering the EPDS

The EPDS is a self-report tool and is usually completed by the woman being assessed, preferably without consultation with others. In circumstances where the woman may have difficulties completing the questionnaire, it may be appropriate for the health professional to read the questions and answers to her and mark the questionnaire according to her responses. In situations where the EPDS cannot be provided to the woman in person, the questionnaire may be completed over the phone.

Good practice point

12 While the EPDS is a self-report tool, in some cases (e.g. difficulties relating to language or literacy, cultural issues, disability), it may be appropriate for it to be administered verbally.

Interpreting the EPDS score

Once the woman has returned a completed questionnaire, a score is calculated (see Appendix 5). The good practice points below outline appropriate actions in relation to the woman's score.

In some cases the score may not give an accurate representation of a woman's mental health. For example, issues associated with the first 12 weeks of pregnancy (e.g. fear of miscarriage) may confound the detection of symptoms and other issues, such as fatigue, are potential confounders in later trimesters and postnatally. On the other hand, a woman may have a low score, although the health professional has good reason to believe that she is experiencing distress or depressive symptoms.

Good practice points

13 *For women who score **10, 11 or 12*** on the EPDS*:* administration of the EPDS should be repeated within 2–4 weeks, and existing support services reviewed and increased if needed.

14 *For women who score **13 or 14*** on the EPDS (once *postnatally* or twice *antenatally):* referral to an appropriate health professional (ideally their usual GP) should be made.

A score of 15 or more on the EPDS has a greater specificity for the detection of major depression both antenatally (Murray & Cox 1990) and postnatally (Boyce et al 1993). This score may indicate significant depression or may be associated with pre-existing personality dysfunction. Referral for comprehensive mental health assessment may be necessary.

Good practice point

15 *For women with high scores on the EPDS (e.g.* ***15 or more****):* the administering health professional should ensure access to timely mental health assessment and management.

Regardless of the total EPDS score, women who have a positive score on Question 10 may be at risk of harming themselves and/or children in their care and further assessment is necessary. Section 4.4 provides guidance on assessing the risk of self-harm or suicide.

Good practice point

16 *For women who score* ***1, 2 or 3*** *on EPDS* ***Question 10****:* the administering health professional should assess the woman's current safety and the safety of children in her care, and act according to clinical judgement, seek advice and/or refer immediately for mental health assessment.

3.4 Practice summary — psychosocial assessment

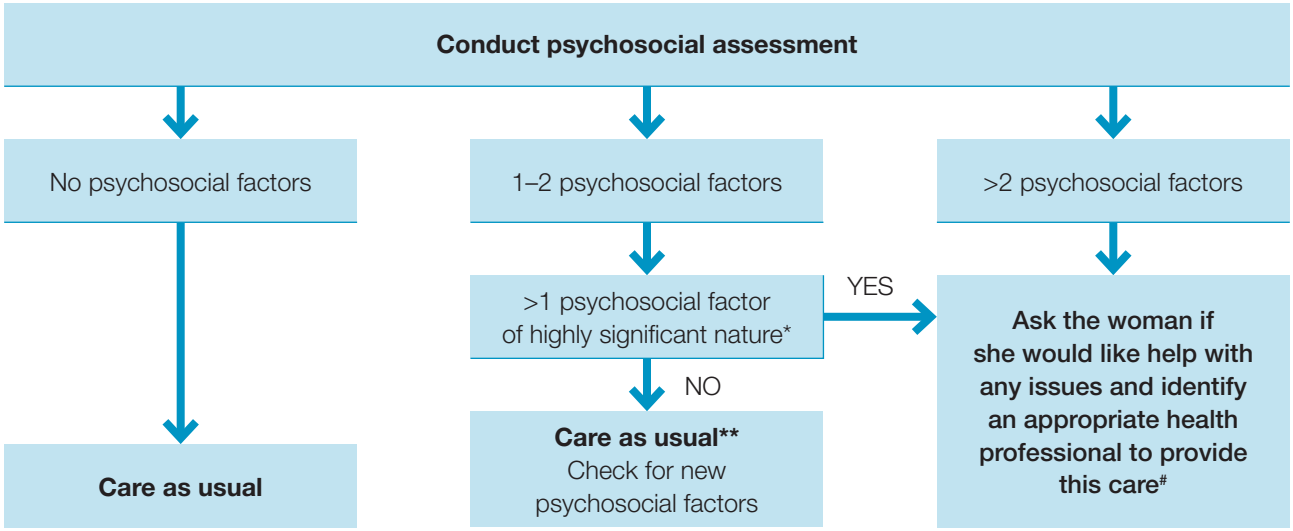
Table 3.1 Checklist — evaluating the need for monitoring or further assessment

Psychosocial assessment	
When — As early as practical in pregnancy and 6–12 weeks after the birth, integrated into existing antenatal and postnatal care. If it is not feasible to conduct the assessments the first time you see the woman (e.g. due to time constraints), explain the importance and purpose of the assessments and set aside time in a follow-up appointment. Should take place at least once, preferably twice, in both the antenatal and postnatal periods.	
Who — Midwife; maternal and child health nurse; GP; obstetrician; Aboriginal and Torres Strait Islander health worker; practice nurse; allied health professional	
How — Self report or face-to-face (see Figure 3.1 and Appendices 4 and 5).	
Before psychosocial assessment	
☐ **Provide psychoeducation** — Explain that pregnancy and early parenthood can be challenging and that some women experience symptoms of depression or anxiety at this time and may benefit from support. Give the woman appropriate written materials (e.g. *beyondblue* emotional health booklet).	Section 2.3.1
☐ **Seek informed consent** — Explain that checking for psychosocial factors and symptoms is a routine part of care during pregnancy and after a birth, much as medical checks are made at these times, and that they remain confidential (unless there is a significant risk that the woman may harm herself or others). Ask the woman for consent and, if given, explain the process of the assessment.	Section 3.1
After psychosocial assessment	
☐ **Identify level of support needed** — Base decisions on the need for further follow-up on clinical judgement and the woman's preferences, taking into account that not all women with an EPDS score of 13 or more will benefit from psychosocial monitoring and/or mental health assessment, and that low or high scores may reflect other factors.	Chapter 5
☐ **Consider safety** — If concerned about the woman's mental health and safety, contact mental health services. A woman has a choice about her care but you may need to override that choice if you consider her safety or that of children in her care to be at risk. In some cases, notification to the relevant child protection agency may need to be considered.	Section 4.4

After psychosocial assessment (cont)	
☐ **Assist women who decline further care** — If a woman chooses not to seek further care, provide her with information about consumer-led and community-led supports. Wherever possible, maintain contact with the woman and encourage her trust and confidence. Suggest that if she is concerned about how she is feeling emotionally, she should approach her GP to discuss her concerns.	
☐ **Identify an appropriate health professional for the woman's ongoing care** — Ideally, ongoing care will be provided by the woman's regular GP. Encourage women who do not have a regular GP to attend a family practice. In situations where this is not possible (e.g. woman's preferences, location or cultural considerations), assist the woman to identify an appropriate health professional.	
☐ **Arrange follow-up care** — If you are the health professional who will provide ongoing care, plan follow-up appointments with the woman. If referral to another health professional is indicated, ensure that the woman understands the need for further care and ask for her consent. Explain any assistance that may be available to support the woman in accessing follow-up care.	Section 5.2
☐ **Continue to involve the woman's significant other(s)** — If ongoing care is needed, ask the woman if there is anyone from her support network that she would like to be involved. Suggest that the woman invite her significant other to the next appointment or a separate appointment — help that person to understand what's happening and provide information.	Section 2.2

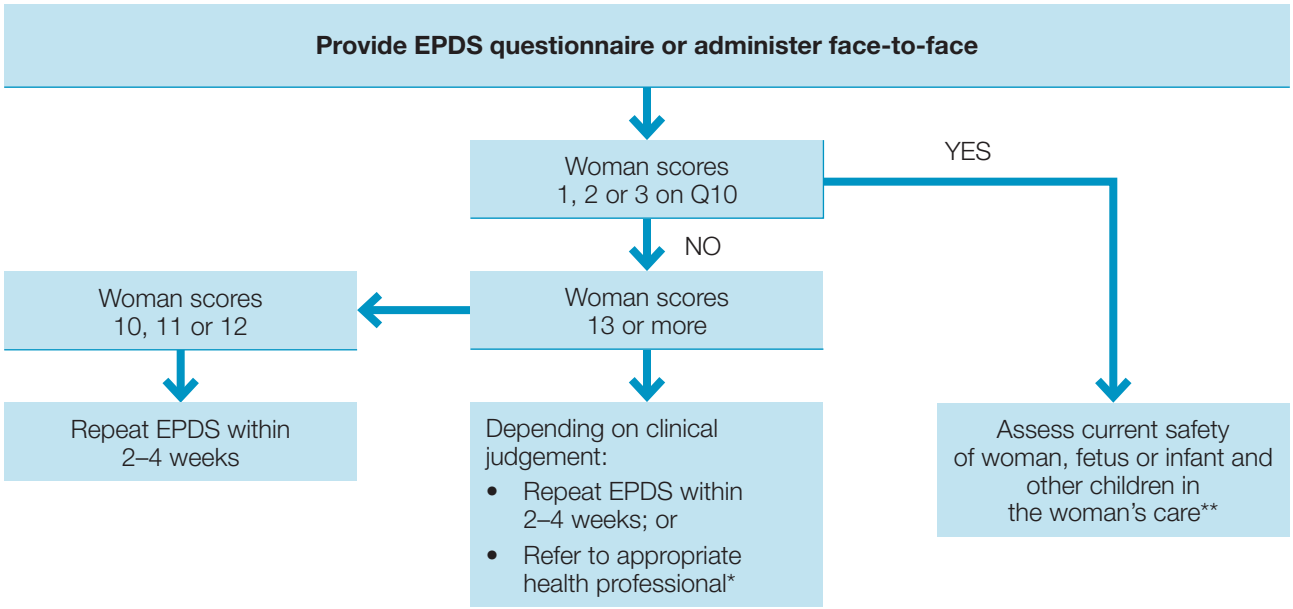
Figure 3.1 Summary of psychosocial assessment

Acting on identified psychosocial factors



Notes: * Past history of a mental health disorder, past or present abuse, drug and/or alcohol problems
** Referral to self-help or other support groups as available and appropriate
# Referral and information exchange require consent from the woman

Appropriate responses to various EPDS scores



Notes: * Ideally, referral will be to the woman's usual GP; referral and information exchange require consent from the woman
** See Sections 4.2 and 4.4

4 Other assessments in the perinatal period

Psychosocial assessment as outlined in Chapter 3 is carried out at specific times in the perinatal period. Other assessments may also be needed to ensure the wellbeing and safety of the woman and infant and to identify whether follow-up care is required, particularly if the woman is experiencing psychosocial adversity or symptoms of depression and/or anxiety. These assessments may include:

- assessment of the mother–infant interaction, at all contacts after the birth (see Section 4.1);
- assessment of risk of harm to the infant, which is required if difficulties are observed with the mother–infant interaction, the mother has a significant mental health disorder and/or has suicidal thinking (see Section 4.2);
- assessment for symptoms of puerperal psychosis in the weeks following a birth, particularly if the woman has a history of bipolar disorder or puerperal psychosis (see Section 4.3); and
- assessment for risk of suicide, which is required if there is evidence of suicidal thinking (e.g. a positive response on Question 10 of the EPDS) (see Section 4.4).

The focus in this chapter is on postnatal assessment and the safety of infants. The Guidelines Expert Advisory Committee (GEAC) did not review but acknowledges emerging literature on the impact of the mother's depression and anxiety on fetal wellbeing.

Consent and confidentiality

A woman's significant other(s) and those involved in her care can be important sources of information about her recent behaviour, her usual coping capacity and the emotional and practical support available to her. Whenever possible, it is good practice to obtain the woman's consent to contact other people for such information. However, where there is a concern that the woman may harm herself or another person, health professionals can contact others without her consent.

In this situation, health professionals can also act without the woman's consent to ensure her safety and that of her infant. This may involve taking action under the Mental Health Act or Child Protection Act in the relevant jurisdiction.

4.1 Assessment of the mother–infant interaction

When women experience mental health disorders in the postnatal period, consideration needs to be given to the infant's wellbeing and the mother–infant interaction. The interactions of mothers with depression with their infants have been shown to differ from women without depression, with the mother being less able to demonstrate warm acceptance of her infant and having less well-timed responsiveness to her infant's demands (PIRI 2009).

In some cases, attachment can be poor even if the mother is not experiencing depression. The mother's attachment style can also predispose her to depression. Maternal factors contributing to difficulties with mother–infant attachment include: a history of abuse or neglect, adoption or multiple placements or carers, or severe difficulties in interpersonal relationships; past or current domestic violence; complex obstetric history; and severe intellectual disability. Infant factors affecting attachment include medical complications, prolonged separations from the mother, prematurity, developmental disorders and infant temperament.

It is important to see the mother and infant together and observe their interaction closely, watching for patterns of interaction and especially whether the infant is able to 'use' the mother as a secure base from which to explore the environment and as a safe haven to return to when aroused or distressed, and how the mother responds when attachment behaviour is triggered by the infant. Table 4.1 highlights aspects of the mother–infant interaction that may indicate the need for referral.

Interventions to treat difficulties with the mother–infant interaction depend on the nature and severity of the difficulties. Mother–infant psychotherapy may be indicated (see Section 7.4).

Table 4.1 Indications of difficulties in the mother–infant interaction

Problems with infant
Problems of feeding, sleeping and settling, not related to organic causes
Infant failing to gain weight appropriately/failure to thrive/overweight
Developmental delay — failure to reach developmental milestones 'on time'
Excessive wariness or friendliness with strangers
Infant appears frightened in mother's presence
Problems with mother
Mother is unable to respond to infant's cues appropriately
Persistent or pronounced lack of maternal empathy
Mother hostile, rejecting, intrusive, teases the infant
Mother fails to ensure infant's safety
Problems with mother–infant interaction
Infant has difficulty signalling/communicating his/her needs to mother
Mother unreliable, inconsistent or inappropriate in responding to infant's cues
Infant persistently avoids looking at mother (or vice versa)
Infant presents fearful or apprehensive of the mother (e.g. looks dazed or flustered when she approaches, freezing, stereotyped behaviours, contradictory behaviour such as sideways or aborted approaches to the mother)
Frightening or frightened mother behaviour (e.g. dissociation, threatening expressions or voices, rough or intrusive handling, seductive or sexualised behaviour)
Inappropriate mother representations (e.g. experiences infant as rejecting, 'manipulative' or vindictive)

Source: Adapted from Gill et al (in press).

Good practice point

17 Assessing the mother–infant interaction should be an integral part of the care of women in the *postnatal* period.

4.2 Assessing for risk to the infant

Further enquiry is warranted if there are observed difficulties with the mother–infant interaction and/or if the woman has a significant mental health disorder. Risk of harm to the infant can be related to suicide risk in the mother (see Section 4.4) but can also be a separate issue.

It should be noted that expressions of fear of harming the baby *may be a sign of anxiety rather than intent,* but should always be assessed further.

The nature of the enquiry will depend on a range of factors, including the setting and the extent of the therapeutic relationship. The following are *examples of questions* that could be asked, taken from the Postpartum Bonding Questionnaire (Brockington et al 2006).

- Have you felt irritated by your baby?
- Have you had significant regrets about having this baby?
- Does the baby feel like it's not yours at times?
- Have you wanted to shake or slap your baby?
- Have you ever harmed your baby?

Decision-making about the need for referral will depend on the outcomes of this further enquiry. Mother–infant psychotherapy may be sufficient to resolve the situation (see Section 7.4). It is preferable that the mother and infant remain together but if there is a risk of harm to the infant, alternative arrangements or notification to the relevant child protection agency may be necessary.

Health services and other child and maternal agencies will generally have internal policies setting out the requirements for employees and their managers in relation to reporting concerns about children at risk of harm from abuse or neglect. Health professionals should therefore be familiar with the legislation in their State or Territory as well as their agency's policy on reporting.

Good practice point

18 Where significant difficulties are observed with the mother–infant interaction and/or there is concern about the mother's mental health, the risk of harm to the infant should be assessed.

4.3 Assessing for symptoms of puerperal psychosis

Puerperal psychosis is a relatively rare but severe psychotic illness with unexplained aetiology. Findings of an analysis of the Swedish Medical Birth Registry (Valdimarsdottir et al 2009) suggest that among first-time mothers:

- the weeks following the birth are associated with a substantially increased risk of psychotic illness, including for women without any previous psychiatric hospitalisation; and
- risk of first-onset psychotic illness during the 90 days following the birth increases with maternal age.

The risk of puerperal psychosis is greatly increased among women who have experienced a past episode of puerperal psychosis or who have a history of bipolar disorder, with 50% of these women affected following birth (Jones 2008). Women with a past history of these mental health disorders should therefore be referred to a specialist.

The onset of puerperal psychosis is unexpected and rapid. It usually occurs within 48 hours to 2 weeks of giving birth (Brockington 1996) but may occur up to 12 weeks after the birth (Munk-Olsen et al 2006). The woman may experience mood swings, confusion, strange beliefs and hallucinations that represent a dramatic change from her previous functioning (Sit et al 2006; Spinelli 2009).

The combination of psychosis and lapsed insight and judgement in puerperal psychosis can lead to devastating consequences in which the safety and wellbeing of the affected woman and her infant are jeopardised (Wisner et al 1994). As the symptoms and potential consequences associated with puerperal psychosis are severe, the involvement of a psychiatrist in management is required. Involuntary treatment may be necessary in some circumstances.

Good practice point

19 Comprehensive mental health assessment is required for women with reported or observed marked changes in mood, thoughts, perceptions and behaviours in the early postnatal period.

4.4 Assessing and managing the risk of suicide

Women who appear to have suicidal thoughts (e.g. have a positive response on Q10 of the EPDS) should be asked about suicidal thinking, planning and self-harm behaviour and any past suicide attempt. Expert consensus is that such enquiry does not induce thoughts of suicide (Hall 2002). Rather it provides an opportunity to ensure the safety of the woman and arrange appropriate follow-up care.

Health professionals should develop a system to assess the risk of suicide and ensure immediate management as needed. If a woman has a positive score on Q10 of the EPDS on one occasion, it is recommended that the EPDS be repeated as often as clinically required, with a view to reassessing risk over time.

The following sections have been developed based on resources available through the Australian National Suicide Prevention Strategy website — www.livingisforeveryone.com.au. More detailed information is available on the website, which includes comprehensive resources on suicide prevention strategies, risk and protective factors, the relationship between mental health and suicide and issues specific to certain groups such as residents of Aboriginal and Torres Strait Islander communities and rural and remote communities. Health professionals are encouraged to review and adapt the resources on this nationally endorsed website and to advise women and their families about the consumer resources it includes.

4.4.1 Assessing the risk of suicide

Assessment of risk involves making enquiry into the extent of suicidal thoughts and intent, including:

- *suicidal thoughts* — if suicidal thoughts are present, how frequent and persistent are they?
- *plan* — if the woman has a plan, how detailed and realistic is it?
- *lethality* — what method has the woman chosen; how lethal is it?
- *means* — does the woman have the means to carry out the method?

Consideration should also be given to:

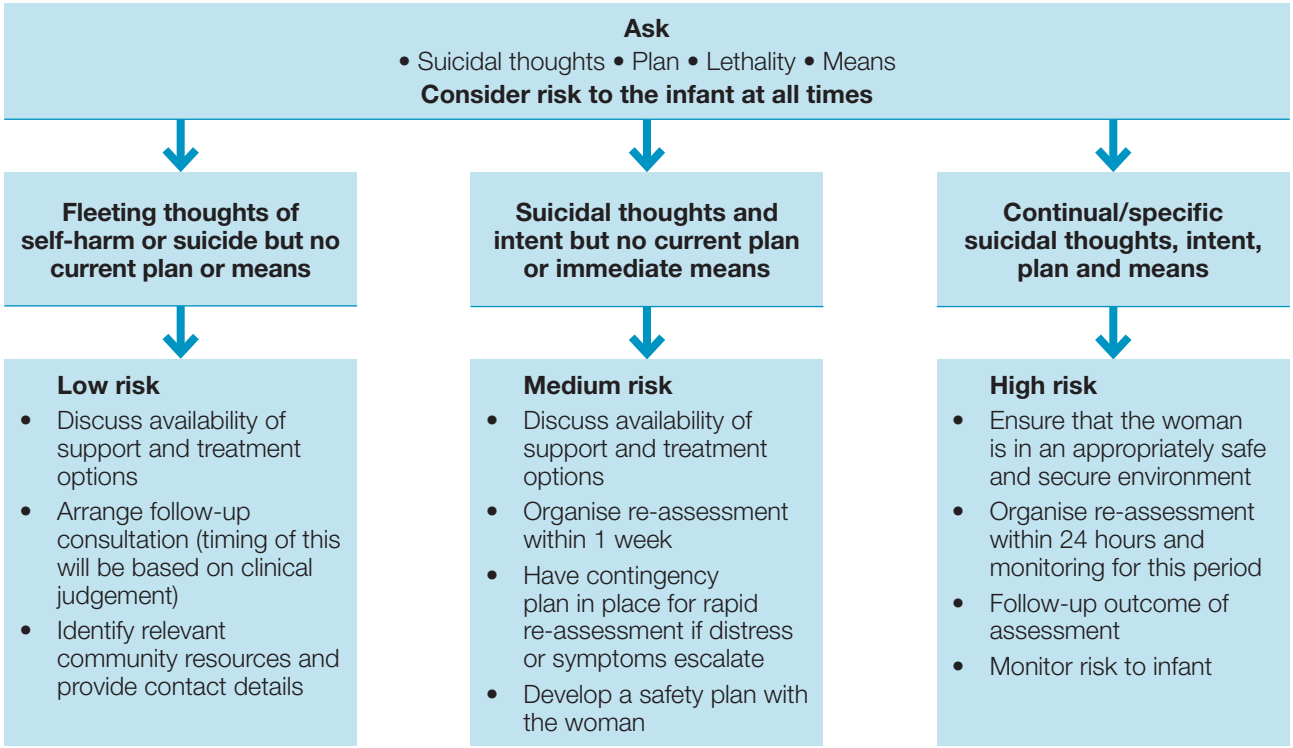
- risk and protective factors;
- mental state — hopelessness, despair, psychosis, agitation, shame, anger, guilt, impulsivity;
- history of suicidal behaviour;
- family history of suicidal behaviour;
- substance use — current misuse of alcohol or other drugs; and
- strengths and supports — availability, willingness and capacity of supports.

Whenever assessing a woman for risk of suicide, enquiry should be made about her risk to the infant (see Section 4.2).

4.4.2 Managing immediate risk

The following diagram represents some general principles for responding to suicide risk. Care and referral pathways will need to be adapted to individual circumstances and local resources and will be informed by clinical judgement. The safety of the baby must also be considered (see Section 4.2).

Figure 4.1 General responses to identified risk of suicide



4.4.3 Developing a safety plan

Health professionals should be practised at collaboratively reaching a safety plan with a woman who is expressing suicidal thoughts or planning, or who has recently been involved in suicidal behaviour.

A safety plan is a prioritised list of coping strategies and sources of support that women can use when they experience suicidal thoughts. The development of a safety plan involves assisting the woman to identify:

- warning signs that she may be at risk of imminent suicide (e.g. feeling trapped, worthless or hopeless);
- internal coping strategies that decrease the level of risk;
- people within the woman's network who can assist in times of need; and
- health professionals and agencies that can be contacted for help.

Safety plans should be frequently revisited and modified as needed.

Good practice point

20 Women identified as being at risk of suicide (through clinical assessment and/or the EPDS) should be specifically assessed. Any immediate risk should be managed and support and treatment options considered. Enquiry about the safety of the infant should also be made.

5 Acting on psychosocial assessments

The psychosocial assessments described in Chapters 3 and 4 provide the health professional administering the assessments with an indication of a woman's mental health care needs.

Initial steps following these assessments include determining whether comprehensive mental health assessment is required (see Section 5.1) and, if necessary, identifying a health professional with appropriate mental health expertise to carry out further assessment (see Section 5.2).

At this point, a decision needs to be made about whether the health professional who administered the psychosocial assessment has the appropriate knowledge and skills to further manage the woman's care. Decision-making will be based on the number and type of psychosocial and other factors involved, the severity of symptoms and the preferences of the woman and her significant other(s). Setting, context and cultural background will also influence the approach taken. Specific mental health expertise is required to develop a management plan for women with more severe symptoms.

The following points illustrate a range of situations and the types of approaches that may be appropriate:

- women with severe symptoms will require comprehensive mental health assessment — subsequent management will most likely involve pharmacological treatment, ongoing psychosocial support and possibly psychological therapy once medication(s) have become effective;
- women with a past history of severe mental health disorder will need comprehensive mental health assessment and additional support, particularly in the early postnatal period;
- women with mild to moderate depressive or related disorder symptoms will require comprehensive mental health assessment and may also benefit from some form of psychological therapy (e.g. cognitive behavioural therapy [CBT] or interpersonal psychotherapy [IPT]) in addition to psychosocial support (e.g. non-directive counselling);
- women experiencing mild depressive or anxiety symptoms in the early postnatal period may benefit from practical support (e.g. advice on parenting, unsettled infants, sleep deprivation);
- women with mild psychosocial factors and/or mild symptoms may benefit from psychoeducation and preventive approaches (e.g. peer support); and
- women experiencing no symptoms of depression or related disorders but experiencing one or more significant psychosocial factors (e.g. a recent separation) may benefit from ongoing psychosocial support.

The actual process that is followed will depend on the health professional involved and the available local pathways to care. For example, a GP may access the relevant Medicare items to develop a mental health treatment plan with the woman, while a maternal and child health nurse may provide ongoing care and support to the family, seeking the advice of a mental health nurse or GP if required.

Addressing individual causes of the woman's depression or anxiety is beyond the scope of these Guidelines. In some situations, referral of women to other agencies (e.g. Alcohol and Drug Information Service, support groups) may be necessary.

5.1 Considering whether comprehensive mental health assessment is required

Psychosocial assessments provide information about a woman's mental health and wellbeing but not a diagnosis. Comprehensive mental health assessment allows a diagnosis to be made and a management plan developed.

In the following situations, comprehensive mental health assessment *is advisable*:

- the woman has a past history of major depression, anxiety disorder, bipolar disorder or puerperal psychosis;
- the woman is experiencing abuse or has experienced abuse in the past;
- the woman or her partner has a problem with alcohol or drugs;
- there are observed difficulties with the mother–infant interaction;
- the woman's EPDS score suggests possible major depression and/or anxiety;
- the woman has a score of 1, 2 or 3 on Question 10 of the EPDS; or
- the woman requests further assessment.

Comprehensive mental health assessment is *required* if the woman has, or is suspected to have, a recurrence or new onset of severe mental health disorder (e.g. bipolar disorder), suicidal thoughts or evidence of harm to herself or infant, or if other children in her care may be at risk of harm.

5.2 Selecting an appropriate referral and care pathway

When the health professional who administered the psychosocial assessments does not have the appropriate knowledge and skills to undertake comprehensive mental health assessment or further manage the woman's care, a mental health referral is required. The referral pathway will depend on the setting and the services available in the area.

In all cases in which a possible current mental health disorder or a history of significant mental health disorder is detected, the woman's GP (if not the health professional conducting the psychosocial assessment) should be informed (with consent from the woman) even if no further assessment or referral is made. Consent from the woman should also be sought for referral (note that while this is preferable, it may not always be feasible, for example if the safety of the woman or infant is considered to be at risk).

The most common referral pathway is for the woman's GP to undertake the mental health assessment, or refer her to a mental health specialist to be assessed. Where a woman has more complex problems, a range of health professionals may become involved.

Consideration needs to be given to the urgency of the referral, particularly when women have severe symptoms or suicidal thinking. In cases of severe mental health disorders, women may need to be referred directly to the local mental health team for urgent assessment or even scheduled to the local psychiatric facility.

In rural and remote settings, services may not be locally available and waiting times can be long. In such cases, the primary care health professional may need to seek advice from a GP or mental health specialist, either directly or through a support line. For women from Aboriginal and Torres Strait Islander or culturally and linguistically diverse populations, involvement of a culturally appropriate worker (e.g. Aboriginal and Torres Strait Islander health worker, cultural liaison officer, interpreter) is advisable.

Whatever pathway is chosen, there is a need for coordinated care and inter-professional communication.

5.2.1 Considerations when mental health referral is not accepted or taken up

In some cases, referral may not be sufficient to ensure that a woman seeks further assistance. Some women may prefer not to undertake comprehensive mental health assessment, others may want further care but not actively seek it for a range of reasons (e.g. background of trauma, fear of authorities, lack of money, trust or knowledge), and others may feel ambivalent about taking up the referral. Maintaining a good therapeutic relationship, actively addressing any ambivalence about treatment, and discussing the benefits of assessment and the aspects of referral that are causing the woman concern may be of assistance.

If there are doubts about the woman's intention to attend for further assessment, it may be advisable for the health professional who conducted the original assessment to make direct contact with mental health services or to make follow-up contact with the woman.

Good practice point

21 In cases where comprehensive mental health assessment is required, health professionals should identify referral options and actively encourage and support women to use them.

5.2.2 Case planning for complex cases

Where a woman has comorbidities — such as more than one mental health diagnosis, a significant maternal–fetal or medical condition, challenging personality traits, major psychosocial stressors (e.g. adolescent pregnancy, poverty, domestic violence or substance misuse) — close attention to inter-professional collaboration is strongly recommended. There are several options for how this might take place, depending on the sector and setting. In public sector settings, ideally a case-planning meeting is convened, which is attended by representatives from the relevant disciplines. In the private sector, collaboration may take the form of a mental health treatment plan, a chronic disease management plan, case conferencing and/or regular contact between health professionals via telephone, fax or email.

Whatever the process adopted, it is important that there is continuing communication and planning. One health professional should take responsibility for keeping documentation and developing a detailed care plan, where each member of the team has a clearly defined role. This avoids duplication and potential for miscommunication between team members (which is increased in complex cases). Processes for monitoring the outcome and continuing safety of the infant or family should be put in place, particularly where women are at risk of loss to follow-up or where there is a concern about risk to the infant or mother.

5.3 Ongoing role of primary care health professionals

Whether or not referral is required, primary care and maternity care providers have an ongoing role in the psychosocial care of women in the perinatal period, including maintaining the therapeutic relationship, supporting the woman's emotional health and monitoring mother and infant wellbeing. In some situations, more intensive ongoing care such as psychological therapy or pharmacological treatment may be needed. These may be provided in general practice or by mental health services.

5.3.1 Preventive approaches

When psychosocial assessments indicate that a women is experiencing psychosocial factors or symptoms of depression, preventive approaches may be of benefit. Primary care health professionals are well placed to provide psychosocial support to all women in the perinatal period and to support preventive approaches among women who may be at increased likelihood of developing depression or related disorders. This is particularly important in the early postnatal period.

Psychosocial interventions that have been shown to be effective in preventing depression in women experiencing psychosocial factors or symptoms include peer support (e.g. telephone support lines or community support groups) (see Section 6.2) and psychoeducation (see Section 2.3.1). There is limited or inconsistent evidence specific to prevention of depression in the perinatal period in other areas (structured psychological interventions, exercise and physical therapies, multi-model interventions, massage, aromatherapy-massage, music therapy).

5.3.2 Supporting management of depression and related disorders

For women experiencing depression and related disorders, effective treatment options include psychological therapy and pharmacological treatment (see Sections 7 and 8). Due to the limited evidence (Rojas et al 2007; Freeman et al 2008), no clear conclusions can be drawn regarding the effectiveness of mixed psychological and pharmacological interventions. Among physical therapies, there is emerging evidence to suggest that exercise may contribute to the treatment of mild to moderate depression (Daley et al 2008; Heh et al 2008) but there is insufficient evidence about the effectiveness of massage and acupuncture.

Primary care professionals with an active role in a woman's mental health care should support women and their significant other(s) to select treatments that are appropriate to their individual circumstances, taking into account contextual factors including ongoing psychosocial factors, ethnicity and cultural background, age and demographic situation. Often, women and their families will need time to make sense of why they are feeling the way they are. It is helpful to explain that these feelings are not unusual and that, while the causes could be a combination of things, the focus is on getting better. Initially, women may be more likely to accept a psychosocial approach, even if they choose to have more formal mental health treatment later.

Primary care health professionals who do not deliver treatments can still provide ongoing support for women experiencing depression and related disorders. This is likely to involve assisting the woman and her significant other(s) to understand the condition and available treatments and providing ongoing psychosocial support (see Section 6.2).

Good practice point

22 Primary care health professionals have an ongoing role in the psychosocial care of women in the perinatal period, whether they provide treatment or refer the woman to a health professional with mental health expertise.

5.4 Practice summary — acting on psychosocial assessments

Table 5.1 Appropriate responses to assessments

Assessment	Examples of appropriate action	Who by
Psychosocial factors and/or mild symptoms	Psychoeducation (see Section 2.3.1) Lifestyle advice (see Section 6.1.1) Peer support (see Section 6.2.4) Provide ongoing opportunities for further discussion Involve significant others (see Section 2.3)	Primary care, community settings
Mild to moderate depressive symptoms	Psychoeducation (see Section 2.3.1) Lifestyle advice (see Section 6.1.1) and self-help strategies Early postnatal care Peer support (see Section 6.2.4) Provide additional opportunities for discussion Non-directive counselling (see Section 6.2.2) Psychological therapy (see Chapter 7) Involve significant others (see Section 2.3)	Primary care, community settings, mental health nurse, psychologist
Severe depressive symptoms	Psychological therapy (see Chapter 7) Medication (see Chapter 8) Mother–infant psychotherapy (see Section 7.4)	Mental health service Mental health nurse Psychologist/psychiatrist Possible inpatient care
Anxiety disorder	Brief psychological therapy +/– medication depending on severity	Primary care Mental health specialist or service
Bipolar disorder/ puerperal psychosis	Urgent intensive medical assessment and management, consideration of inpatient treatment, psychological therapy	Mental health specialist or service

6 Supporting emotional health and wellbeing in the perinatal period

Whether or not women experience psychosocial factors or depressive symptoms in the perinatal period, they are likely to benefit from appropriate psychosocial care at this time. This includes lifestyle advice specific to pregnancy and the postnatal period (Section 6.1.1) and psychosocial support (e.g. active listening, psychoeducation) used as a preventive approach or as part of the management of depression and related disorders (Section 6.2). Early intervention for women experiencing distress or depressive symptoms in the early postnatal period can help to prevent more serious mental health problems from developing. In some situations, specific therapy may be appropriate (Section 6.1.2).

6.1 Promoting emotional health and wellbeing

6.1.1 Lifestyle advice

There is good evidence that relaxation, physical activity and healthy sleep patterns promote good mental health. During pregnancy or following the birth of a baby, these aspects of a woman's life may be disrupted and can contribute to impaired mental health. Lifestyle advice for the general population will need to be adapted to suit the woman's particular circumstances, taking into consideration the demands of the pregnancy or baby and other family needs. For example, regardless of whether women follow healthy sleep habits, their nights will be disrupted during the early postnatal period, and they should be encouraged to take opportunities to rest or nap during the day (e.g. when the baby is asleep).

Nutritional supplements

Women may seek advice on nutritional supplements to prevent or improve depressive symptoms. The systematic literature review found no evidence specific to nutrition and mental health disorders in the perinatal period, although maternal omega-3 intake was found to be of benefit to the infant (Mendez et al 2009). Women should be encouraged to get the best nutrition from a healthy diet, with supplementation considered only if this is not possible. There is emerging evidence that supplementation may be harmful (this will be discussed in the forthcoming NHMRC antenatal care guidelines).

Complementary and alternative medicines

The use of complementary and alternative medicines (CAMs), including herbal and homeopathic therapies, is increasingly common in Australia and some women may choose these as supplements to support wellbeing or because they are 'safer' alternatives to pharmacological treatments. However, the systematic literature review found no evidence from randomised trials to support the benefits or safety of these therapies in pregnancy and during breastfeeding. There is also potential for interaction between herbal supplements and pharmacological treatments (e.g. St John's Wort can increase serotonin levels and is contraindicated in people taking selective serotonin reuptake inhibitors [SSRIs]). As well, even if active ingredients have been studied in trials, supplements may contain other ingredients with unknown effects.

Women should be encouraged to discuss any alternative treatments they are taking. The *beyondblue* booklets *A Guide to What Works for Depression* (Jorm et al 2009) and *A Guide to What Works for Anxiety Disorders* (Reavley et al 2010) may be helpful.

Table 6.1 Summary of lifestyle advice for the management of depression and related disorders

Relaxation and stress reduction	Progressive muscle relaxation Breathing exercises Mental imagery
Sleep	Establish a proper sleep environment Go to bed only to sleep, not to study or watch television Take regular physical exercise in the late afternoon or early evening Allow a wind-down time before bedtime Avoid alcohol, caffeine or nicotine Go to bed only when you are sleepy Have a light snack or warm milk before going to bed If you do not fall asleep within 15 minutes, get up and go to another room, and stay up until you are sleepy Get up regularly at the same time each morning
Physical activity	Three times per week for at least 45 minutes is helpful in promoting wellbeing and lifting mood
Complementary and alternative medicines	Advise your health professional of any complementary or alternative medicines (such as homeopathic or herbal remedies) you are taking or thinking of taking

Source: *beyondblue* (2009b).

Good practice point

23 Women in the perinatal period may benefit from being provided with reliable advice on lifestyle issues and sleep, as well as assistance in planning how this advice can be incorporated into their daily activities during this time.

6.1.2 Support in the early postnatal period

The early postnatal period is a time of emotional change for most women. Some women may experience distress or symptoms of depression at this time if they feel overwhelmed and unable to manage. They may also experience disappointment and grief if something has gone wrong or their expectations of the pregnancy and birth are not realised. Early intervention, in the form of support or specific care, can help women to adjust and prevent more serious mental health problems from developing. The early postnatal period is also the time when symptoms of puerperal psychosis emerge (see Section 4.3).

Woman with a past history of mental health disorders

Women with a past history of mental health disorders are at increased risk of relapse in the perinatal period and are likely to require specialist care. However, they will still benefit from ongoing support provided through primary care. Examples of supportive approaches include:

- planning for more intensive postnatal support (longer stay in hospital, midwife/maternal and child health nurse visits);
- assisting women to maintain regular sleep patterns;
- considering the possible harms of sleep deprivation against the benefits of breastfeeding; and
- supporting the mother–infant interaction.

Other women who may be at higher risk and need extra support include those who have experienced miscarriage, stillbirth or a traumatic or complicated birth, who have a history of obstetric problems, or whose infant is unwell.

Supporting mothers with unsettled babies

Disturbed sleep can be associated with mental health problems, particularly if the woman perceives her baby's unsettled behaviour or poor sleep patterns to be a problem. Assisting the woman to understand normal infant behaviour and adjust her expectations about sleep patterns may help to increase her confidence and ability to manage.

If the period of disturbed sleep is prolonged, and/or the woman does not adjust, she may experience distress that adversely affects other aspects of her life. Specific care (e.g. in an early parenting centre) may be useful to improve the infant's sleep behaviour and help to reduce the woman's sleep deprivation (Matthey & Speyer 2008).

Women with a past history of mental health difficulties may need to have a plan in place before the baby is born, so that their reaction to disturbed sleep and the baby's unsettled behaviour can be assessed early and support provided if necessary.

Supporting women who experience multiple births

Women who have twins or triplets, either through assisted reproductive technology or naturally, are likely to experience an even wider range of emotions during the pregnancy and after the birth, and may need both practical and emotional support. *beyondblue* has produced a booklet on emotional health during pregnancy and early parenthood for parents of multiple-birth children, which is available from the *beyondblue* website.

Supporting women who experience complex pregnancies or births

If a woman's expectations of pregnancy and birth are not realised because of complications or illness, disappointment, guilt and grief may result. Women may benefit from being able to talk about their experience of pregnancy and birth and reconcile their expectations with what actually happened.

Supporting mothers separated from the infant after birth

Women who are separated from their babies after birth because they are premature or unwell are at increased risk of depression and difficulties with the mother–infant interaction.

There is good-quality evidence that psychoeducation is effective in preventing depression and anxiety in women with a prematurely born infant (Melnyk et al 2006). Antenatal group CBT and an information booklet may be associated with reduced depression scores in women identified as having a higher likelihood of developing depression or anxiety in the perinatal period (Austin et al 2008). Section 2.3.1 provides more detailed information on psychoeducation.

Supporting parents who have lost a baby

Many of the symptoms of perinatal depression and perinatal grief are similar. It is important to differentiate the two conditions, so that bereaved parents are not misdiagnosed and given inappropriate treatment (Li et al 2005; Wijngaards-de Meij et al 2005).

Assertive follow-up may be required to provide ongoing care and support to women who have lost a baby, as they are less likely to attend health services and are at increased risk of experiencing depression. Women whose babies have died in the perinatal period and who score 13 or more on the EPDS should be referred to an experienced bereavement practitioner.

6.2 Providing psychosocial support

Psychosocial interventions used as preventive approaches or as part of management of depression and related disorders include non-directive counselling (e.g. at clinic or home visits), psychoeducation (see Section 2.3.1) and peer support. These interventions depend on effective woman-centred communication. Women may also benefit from being informed about psychosocial support options in their communities.

6.2.1 Summary of the evidence

Evaluation of the available evidence on the effectiveness of psychosocial interventions in preventing and treating depression in women with psychosocial factors and/or symptoms found that:

- telephone-based social support (Dennis et al 2009) and psychoeducation (Melnyk et al 2006) are effective in preventing depression;
- debriefing after birth is not effective in preventing depression (NICE 2007);

- non-directive counselling is effective in improving depressive symptoms in the postnatal period (Holden et al 1989; Wickberg & Hwang 1996; Cooper et al 2003); and
- there is a lack of evidence for the effectiveness of psychosocial interventions for anxiety disorder or bipolar disorder during the perinatal period, or for puerperal psychosis.

6.2.2 Non-directive counselling

Evidence on non-directive counselling (involving active listening, person-centred discussions, empathy) is limited for the perinatal population, but there is good evidence that it is effective in the general population. Studies of the effectiveness of non-directive counselling in the perinatal period defined the process as a series of home listening visits (6, 8 or 10 sessions) by experienced and trained health visitors (Holden et al 1989; Cooper et al 2003) or child health clinic nurses (Wickberg & Hwang 1996). The approach is based on the assumption that talking about their feelings to an empathic and non-judgemental professional will help women to take a more positive view of themselves and their lives (Holden et al 1989). A focus is on listening to women and encouraging them to make decisions based on their own judgement rather than giving advice (Holden et al 1989).

Recommendation	Grade	References
5 Non-directive counselling in the context of home visits can be considered as part of the management of mild to moderate depression for women in the *postnatal* period.	C	Holden et al 1989; Wickberg & Hwang 1996; Cooper et al 2003

6.2.3 Debriefing/active listening

While routine debriefing after birth has not been found to be an effective means of preventing depression (NICE 2007), women may benefit from being able to talk about their experience of pregnancy and birth. In such situations, communication should be supportive (rather than explorative) and can be fostered by using active listening techniques, including (NHMRC 2004):

- making appropriate eye contact early in the interview;
- asking open-ended questions;
- attending to verbal and non-verbal cues;
- clarifying the information provided by the woman; and
- clarifying the woman's understanding of the information provided to her.

It may also be useful to assist the woman in seeking further information.

6.2.4 Peer support

While it is acknowledged that there is a considerable body of evidence concerning social support, the systematic literature review was restricted to studies of social support and depression in the perinatal period. This review found preliminary evidence indicating that peer-led telephone support is effective in preventing depression in women identified as being at risk of experiencing depression in the postnatal period (Dennis et al 2009). The evaluated intervention comprised matching women identified as at risk at 2 weeks postpartum with a trained peer (mother) volunteer. Volunteers initiated contact with participants and made a minimum of four contacts. The study found that women who received peer support were half as likely to develop depression in the postnatal period than those in the control group.

This type of intervention may be applicable to preventing depression in the postnatal period among women experiencing isolation (e.g. through geographic location, social isolation, disability).

Points to take into account when considering peer support include:

- the likelihood of the woman developing or relapsing into a mental health episode or having significant symptoms;
- whether the woman is receiving other therapies;
- whether peer support is facilitated by a health professional; and
- the need for peer supporters to be trained.

6.3 Practice summary — supporting emotional health and wellbeing

Promoting emotional health and wellbeing	
When — During the perinatal period	
Who — Midwife; maternal and child health nurse; GP; obstetrician; Aboriginal and Torres Strait Islander health worker; practice nurse; mental health nurse; allied health professional	
☐ **Provide lifestyle advice** — Provide women with advice on diet, physical activity, sleep, smoking and alcohol and assistance in planning how this advice can be incorporated into their daily activities.	Section 6.1
Psychosocial support	
When — During the perinatal period	
Who — Midwife; maternal and child health nurse; GP; obstetrician; Aboriginal and Torres Strait Islander health worker; practice nurse; mental health nurse; allied health professional	
☐ **Provide psychoeducation** — Provide detailed information on depression or anxiety at this time and the benefits to women from support. Give women appropriate written materials (e.g. *beyondblue* emotional health booklet).	Section 2.3.1
☐ **Use active listening techniques** — Support women in talking about their experiences and needs.	Section 6.2.3
☐ **Involve the woman's significant other(s)** — If ongoing care is needed, ask the woman if there is anyone from her support network that she would like to be involved.	Section 2.3
☐ **Assess need for support of other family members** — Consider the full family context and facilitate support for other family members, including the infant and other children, if required.	Table 2.1

7 Psychological therapies

There are many forms of psychological therapy used to treat women with depression and related disorders in the perinatal period. The systematic literature review examined the evidence for a wide range of interventions, but found limited evidence for many of these. These Guidelines only make recommendations about interventions for which there is at least moderate-quality evidence; these include cognitive behavioural therapy (CBT), interpersonal psychotherapy (IPT) and psychodynamic therapy, which have been shown to improve depressive symptoms in the postnatal period compared with standard care (NICE 2007). There is emerging evidence to suggest that addressing difficulties in the mother–infant interaction may not only improve the interactions themselves, but can also reduce maternal depression.

7.1 Summary of the evidence

There is good evidence of efficacy for psychological interventions in a range of mental health disorders, including depression, and many reviews have found interventions specifically designed for depression (e.g. CBT and IPT) equivalent to pharmacological treatments in terms of their efficacy (NICE 2007).

Evaluation of psychological therapies in the management of depression found the following:

- psychological therapies targeting women with a formal diagnosis of depression, including CBT (Prendergast & Austin 2001; Honey et al 2002; Cooper et al 2003; Bledsoe & Grote 2006; Cuijpers et al 2008; Rahman et al 2008; Dennis & Hodnett 2009), IPT (O'Hara et al 2000; Bledsoe & Grote 2006; Dennis & Hodnett 2009), and psychodynamic therapy (Cooper et al 2003; Bledsoe & Grote 2006), are effective for improving depressive symptoms in the postnatal period; and
- there is a lack of evidence for the effectiveness of psychological therapies for anxiety disorder or bipolar disorder during the perinatal period, or for puerperal psychosis.

Until more recently the focus of research has been solely on the postnatal period, with a comparative lack of studies in antenatal populations. However, psychosocial and psychological therapies that are effective in the postnatal period, and at times other than in the perinatal period, would be expected to work in the antenatal period as the disorders differ little from disorders among non-pregnant women in both their presentation and course.

Note that as the systematic literature review focused on studies specific to the perinatal period, these findings may not mimic those in the general population.

7.2 Decision-making about psychological therapies

The management of depression and related disorders is a collaborative process that involves active listening. To inform decision-making, the woman should be given relevant and culturally appropriate information about the nature of therapies and the suitability and acceptability of therapies to her and her significant other(s) should be discussed. Including the woman's significant other(s) in psychological interventions may enhance the application of principles/skills learned into the woman's daily life.

The choice of therapy will depend on the health professional's training, skills and experience and on factors specific to the individual woman. Decision-making about the type of psychological therapy needs to take into consideration:

- both psychological and physical comorbidities, barriers to help-seeking (i.e. stigma associated with the condition) and the impact of an untreated condition on the woman, infant and family;
- the severity of disorder — for women with moderate to severe symptoms, pharmacological treatment may need to be considered initially (see Chapter 8), and used in combination with psychological interventions; and
- the woman's preferences, age, education level, intellectual capacity, language and/or cultural factors and motivation (these will have a variable impact on the woman's suitability to engage in psychological interventions).

Good practice points

24 Psychological therapies in the perinatal period should be undertaken by registered practitioners with accredited training in the relevant therapy.

25 Decision-making about the type of psychological therapy should be based on the woman's preferences, the suitability of a particular therapy to the individual woman, the severity of her disorder and the availability of a suitably trained practitioner.

7.3 Evidence-based psychological therapies

The following sections describe a range of psychological therapies for which there is moderate- or good-quality evidence of effectiveness in women experiencing depression in the perinatal period.

7.3.1 Cognitive behavioural therapy (CBT)

CBT uses individual or group interventions to teach alternative ways of thinking and acting. The goal is to identify and reduce depressive feelings and give participants more control over their lives. Most CBT interventions are:

- brief and time-limited, encouraging the person to develop independent self-help skills;
- educational, presenting cognitive-behavioural techniques as skills to be acquired by practice and carried into the person's environment; and
- problem-oriented, focusing on identifying thought patterns that contribute to the person's depression rather than on their origins.

Skills developed and/or reinforced in most CBT interventions include self-monitoring and evaluation, social engagement, developing a balanced work–life activity schedule, physical activity, physical and mental relaxation, constructive thinking, self-reinforcement, assertive communication, and negotiation and problem solving. In clinical practice, CBT is often offered on an individual basis and tailored to the needs of that individual in terms of gender, age and culture.

Recommendation	Grade	References
6 Cognitive behavioural therapy should be considered for treating women with diagnosed mild to moderate depression in the postnatal period.	**B**	Prendergast & Austin 2001; Honey et al 2002; Cooper et al 2003; Bledsoe & Grote 2006; Cuijpers et al 2008; Rahman et al 2008; Dennis & Hodnett 2009

Other forms of CBT

The evidence on CBT in the perinatal period relates to CBT given on an individual basis. However, women also participate in group CBT programs at this time, and may benefit from sharing their information and experiences with other women who are feeling the same way. Group interventions have been found to be effective in treating depression in the general population (Oei & Dingle 2008).

Contemporary advances in CBT therapy include online therapy delivery via resources such as MoodGYM, e-couch and beat the blues (UK). These resources can be used as stand-alone self-help courses or integrated in a health professional-led intervention. Research into the effectiveness of such strategies is currently being undertaken.

7.3.2 Interpersonal psychotherapy (IPT)

IPT is based on the assumption that depression, regardless of symptoms, severity, vulnerability or personality, occurs in an interpersonal context and within the framework of one of four problem areas: grief, interpersonal role disputes, role transitions, or interpersonal deficits. The premise of IPT is that addressing these problems can lessen depressive symptoms. IPT as an acute treatment generally has three phases (NICE 2007):

- evaluation of diagnosis, psychiatric/social history (including current social functioning) and linkage between the current interpersonal situation and one of the four interpersonal problem areas;
- pursuit of strategies that are specific to the chosen interpersonal problem area; and
- encouragement to recognise and consolidate therapeutic gains and develop ways to identify and counter depressive symptoms should they arise again in the future.

Recommendation	Grade	References
7 Interpersonal psychotherapy can be considered for treating women with diagnosed mild to moderate depression in the *postnatal* period.	**C**	O'Hara et al 2000; Bledsoe & Grote 2006; Dennis & Hodnett 2009

7.3.3 Psychodynamic therapy

Psychodynamic therapy, also known as insight-oriented therapy, focuses on unconscious processes as they are manifested in a person's present behaviour (NICE 2007). The goals of psychodynamic therapy are an individual's self-awareness and understanding of the influence of the past on present behaviour. In its brief form, a psychodynamic approach enables the individual to examine unresolved conflicts and symptoms that arise from past dysfunctional relationships. Several different approaches to brief psychodynamic therapy have evolved from psychoanalytic theory and have been clinically applied to a wide range of psychological disorders including depression.

There is little evidence for the effectiveness of psychodynamic therapy during the perinatal period and this is unlikely to change, as psychodynamic therapy is difficult to study in a research setting. While it will not be appropriate for all women, psychodynamic therapy has a place in the treatment of selected patients for whom other psychological therapies are not suitable.

Recommendation	Grade	References
8 Psychodynamic therapy can be considered for treating women with diagnosed mild to moderate depression in the *postnatal* period**.**	**D**	Cooper et al 2003; Bledsoe & Grote 2006

7.4 Interventions to treat difficulties with mother–infant interaction

It is increasingly recognised that treating perinatal depression in isolation does not automatically improve outcomes for the infant (Cramer 1993; Forman et al 2007). Psychological therapies (e.g. CBT, IPT) and psychosocial support (e.g. home visits) have been investigated as measures to improve mother–infant interactions (Field et al 2000; Clark et al 2003; Cooper et al 2003; van Doesum et al 2008) but it is difficult to evaluate precisely which elements of the mother–infant interaction are amenable to treatment. It should be remembered that infants themselves can experience depression or other difficulties that are also deserving of treatment (Zero to Three 1994).

Routine primary care interventions following a birth normally involve women being seen by their local maternal and child health nurse, Aboriginal health care worker, and/or GP. Assessment of the mother and infant includes discussion and observation of the mother–infant interaction. The discussion encompasses how the infant is feeding (including advice on breastfeeding and nutrition); sleeping and settling of the infant; the infant's physical and cognitive development; and any problems that the mother may be experiencing. Observed interactions include the attachment between mother and infant, and the mother's ability to respond to her infant's cues.

In some instances, when a mother or health professional has concerns that are unable to be addressed during routine care, mothers may be referred to early parenting centres for additional support and assistance including individual programs, groups with other mothers, day programs or admission to a centre for a residential program.

Where mother–infant relationship difficulties do not improve with routine primary care interventions, or where there are many risk factors (or one severe risk factor) for impaired mother–infant relationships (see Section 4.1), referral to a perinatal and infant mental health specialist or service may be indicated.

Mother and infant psychotherapy is a specialised field. This term is a descriptor for a treatment approach where the mother and infant are seen together and the focus of the therapy is the quality of the relationship. The therapy is grounded in the conceptual frameworks of psychoanalysis, attachment theory, stress and trauma work and developmental psychopathology (Lieberman & Van Horn 2008). Examples of interventions directly aimed at the mother and infant relationship are the techniques of 'Watch Wait and Wonder' (Muir 1992) and Interactive Guidance (McDonough 2004).

Good practice point

26 When a woman is experiencing a significant mental health disorder and has difficulties interacting with her infant, both problems need to be addressed. The wellbeing of the infant needs to be considered at all times.

7.5 Practice summary — psychological therapies

Table 7.1 Checklist — psychological therapies in the perinatal period

Psychological therapy	
When — During the perinatal period	
Who — GP; psychologist; psychiatrist; allied mental health professional	
☐ If psychological therapy is indicated, **discuss with the woman and her significant other(s)** the most appropriate type of therapy to be used, based on the woman's individual circumstances, her preferences and the availability of therapists and other providers in your community.	Section 5.4
☐ **Be aware of Medicare items** aimed at supporting access to mental health services.	Appendix 7
Mother–infant psychotherapy	
When — If a woman has difficulties interacting with her infant and these do not improve with routine primary care interventions.	
Who — Midwife; maternal and child health nurse; GP; allied health professional; Aboriginal and Torres Strait Islander health worker.	
☐ **Consider referral** — Base decisions on referral of women to specialist perinatal and infant mental health services on risk factors for impaired mother–infant relationships.	Sections 4.1 and 7.4

8 Pharmacological treatments

While approaches to the pharmacological treatment of depression and related disorders during the perinatal period are not likely to differ from approaches at other times, the potential for harm to the fetus and the breastfed infant must be carefully balanced with the harm to mother and offspring if the mother remains untreated. In view of the above, medications should only be prescribed after careful deliberation with the woman (and her significant other[s]), where women are planning a pregnancy, pregnant or breastfeeding. This chapter discusses the potential harms associated with specific medications — antidepressants, benzodiazepines, anticonvulsants, mood stabilisers, first- and second-generation antipsychotics — and includes points for consideration when discussing their use with women and their significant others. Ongoing monitoring and evaluation will be required, particularly where women are taking other medications for physical conditions.

It should be noted that the good practice points in this chapter are based on the best available evidence, up to April 2009 (the cut-off for the systematic literature review). The evidence base changes constantly as new research results emerge. In addition, most studies focus on individual factors and/or medications rather than pharmacological treatments overall. Due to the paucity of evidence, no absolute assurance can be given about any of the medications discussed in this chapter.

8.1 Summary of the evidence

The systematic literature review included questions specific to the benefits and harms of pharmacological interventions for depression and related disorders in the perinatal period. A further question investigating the benefits of combined psychosocial, psychological and pharmacological interventions was also examined but insufficient evidence was identified upon which to base conclusions. There was also a paucity of evidence concerning the efficacy of complementary treatments for depression and related disorders in the perinatal period.

Evaluation of the available evidence in the perinatal population identified the following. The prevention and benefits sections below do not invalidate the positive findings in the general population, which are likely to also apply to the perinatal population.

Prevention

- There is insufficient evidence that pharmacological therapies are beneficial in preventing depression in the antenatal period (Lawrie et al 1998; Harris et al 2002; Llorente et al 2003).

Benefits of pharmacological interventions in the perinatal period

- *Depression* — There is insufficient evidence from studies specifically in antenatal or postnatal populations regarding the efficacy of antidepressant medication. However, there is limited evidence to suggest that maintaining rather than discontinuing antidepressant medication during pregnancy reduces relapse at this time (Cohen et al 2006).
- *Anxiety* — There is insufficient evidence from studies specifically in antenatal or postnatal populations regarding the pharmacological treatment of anxiety disorders.
- *Bipolar disorder* — For pregnant women with bipolar disorder and stabilised on medication, there is some evidence that continuing lithium in pregnancy helps to reduce relapse (Viguera et al 2000; Viguera et al 2007a). For women who discontinue lithium during pregnancy, there is some evidence for recommencing lithium immediately after the birth to reduce recurrence (Cohen et al 1995; Wisner et al 2004).

Safety of pharmacological interventions in the perinatal period

- *Birth defects* have been associated with *in utero* exposure to anticonvulsants, in particular sodium valproate (Bowden 2003; Koren et al 2006; Meador et al 2008). A small increased risk of birth defects has been associated with use of lithium in pregnancy (Cohen et al 1994). There are now a number of large prospective studies and most of the evidence goes against an association between any particular selective serotonin reuptake inhibitor (SSRI) and birth defects (Einarson & Einarson 2005; de las Cuevas & Sanz 2006; Rahimi et al 2006; Bellantuono et al 2007; Cipriani et al 2007). While earlier studies suggested an increase in orofacial cleft defects following *in utero* exposure to benzodiazepines, a recent large prospective study found no significant association with birth defects (Wikner et al 2007). While there appears to be no association between first-generation antipsychotics (Diav-Citrin et al 2005), or second-generation antipsychotics (Reis & Källén 2008; Einarson & Boskovic 2009) and birth defects, the evidence at this stage is very sparse.
- *Obstetric outcomes* such as mild degrees of preterm birth and low birth weight have been associated with the use of SSRIs (Lattimore et al 2005; de las Cuevas & Sanz 2006; Gentile 2007), benzodiazepines (Wikner et al 2007), and first-generation antipsychotics (Diav-Citrin et al 2005). The anticonvulsant carbamazepine has been associated with a decrease in gestational age at birth (Matalon et al 2002). First- and second-generation antipsychotics have been associated with obesity in pregnancy (Reis & Källén 2008) and high (Newham et al 2008) or low (Newport et al 2007) birth weights. *In utero* exposure to lithium has been associated with preterm birth and low birth weight (Newport et al 2005).
- *Adverse neonatal outcomes* reported include mild degrees of poor neonatal adaptation following SSRI exposure (Lattimore et al 2005; de las Cuevas & Sanz 2006; Gentile 2007) and lower Apgar scores following benzodiazepine exposure (Wikner et al 2007). A link between neonatal persistent pulmonary hypertension and late exposure to SSRIs has been suggested (Chambers et al 2006; Källén & Olausson 2008) but not confirmed (Andrade et al 2009; Wichman et al 2009). Exposure to lithium in late pregnancy has been associated with low Apgar scores and central nervous system and neuromuscular complications (Newport et al 2005). There is insufficient evidence for conclusions to be drawn about neonatal outcomes associated with *in utero* exposure to anticonvulsants or first- or second-generation antipsychotics.
- There is a lack of evidence concerning *long-term neurodevelopmental outcomes* following *in utero* exposure to benzodiazepines, lithium, first- or second-generation antipsychotics. Available evidence concerning SSRIs is reassuring (Nulman et al 1997; 2002; de las Cuevas & Sanz 2006), although there have been some reports of mild delay in motor development (Casper et al 2003). Sodium valproate exposure *in utero* has been associated with adverse cognitive outcomes for the infant (Harden et al 2009).
- *Breastfeeding* — Evidence suggests that SSRIs (Weissman et al 2004; Eberhard-Gran et al 2006; Cipriani et al 2007) and benzodiazepines with short half-lives (Eberhard-Gran et al 2006) are transferred in only low concentrations to breast milk. There is currently little evidence concerning the safety of anticonvulsants used as mood stabilisers (Eberhard-Gran et al 2006; Gentile 2006) or antipsychotics in breastfeeding (Gentile 2006; 2008). Limited data suggest that lithium in breast milk can adversely affect the infant when its elimination is impaired, as in dehydration or in newborn or premature infants.

Further details on the systematic literature review are given in Appendix 3.

8.2 Decision-making about pharmacological treatments

Psychotropic medication may be indicated during the perinatal period for:

- prophylaxis of a pre-existing disorder, such as bipolar disorder; or
- treatment of a new episode of mental health disorder.

While there are risks associated with the use of psychotropic medications in this period, it should not be assumed that it is always better to avoid medication. Untreated mental health disorders in this period can significantly affect the physical and/or mental wellbeing of the woman, the fetus/infant, significant other(s) and family (NICE 2007). For example, depression is associated with an increased rate of obstetric complications, stillbirth, suicide attempts, postnatal specialist care for the infant and low birth weight infants (Bonari et al 2004). Among women with bipolar disorder, there is also an increased rate of suicide (Appleby et al 1998), potentially significant exacerbation of the disorder if not treated, and poorer obstetric outcomes including increased preterm birth, low birth weight infants and infants who are small for their gestational age (Howard 2005; Jablensky et al 2005).

Decision-making about the continuation, commencement or discontinuation of psychotropic treatments for women who are planning a pregnancy, pregnant or breastfeeding needs to:

- be on a case-by-case basis, taking into account the woman's individual characteristics (e.g. age, weight, ethnicity), her mental health history and tendency to relapse, the risk to the fetus or infant during the withdrawal period, and the risk of not treating the disorder;
- be guided by careful consultation with the woman and her significant other(s); and
- follow existing guidelines for the general population where specific guidance is not given in these Guidelines.

Where a pregnancy is planned, preconception planning for medication use in pregnancy and breastfeeding should be undertaken. This includes folate supplementation when planning the pregnancy and in the first trimester.

As many pregnancies are unplanned, some are exposed inadvertently to psychotropic medications. In such cases, women should be advised to seek advice from the prescribing doctor. In some situations, specialist advice may need to be sought through drug information services. Subsequent referral to an obstetrician may be required for evaluation of the possibility of fetal abnormalities.

When a woman with a past history of a severe mental health disorder has been unmedicated during pregnancy, serious consideration needs to be given to recommencing medication immediately after the birth.

Good practice points

27 In decision-making about the use of pharmacological treatment in the *antenatal* period, consideration should be given to the potential risks and benefits to the pregnant woman and fetus of treatment versus non-treatment.

28 In decision-making about the use of pharmacological treatment in the *postnatal* period, this needs to be weighed against minimal possible exposure to the infant during breastfeeding.

8.2.1 Supporting informed decision-making

Discussions about treatment options with a woman and her significant other should cover (NICE 2007):

- the risk of relapse or deterioration in symptoms and the woman's ability to cope with untreated symptoms;
- the severity of previous episodes, response to treatment and the woman's preferences;
- early side-effects of antidepressants, their likely duration and the need for extra support during this time;
- the possibility that birth defects may still occur even if a medication is ceased after pregnancy is confirmed;
- the risks from stopping medication abruptly;
- the need for prompt treatment because of the potential impact of an untreated mental health disorder on the fetus or infant;
- the increased risk of harm associated with pharmacological treatments during pregnancy and the postnatal period, including the risk of overdose;
- treatment options that would enable the woman to breastfeed if she wishes, rather than recommending that she does not breastfeed; and
- possible interactions between pharmacological agents and complementary or traditional remedies.

8.2.2 Discussing the risks and benefits of treatment for mother and infant

When considering treatment choices for mental health disorders during pregnancy and breastfeeding, or when a pregnancy is planned, it is important to place risks from pharmacological treatment in the context of the individual woman's condition. It should also be noted that the background risk of birth defects in the general population is between 2% and 4%.

In discussing the risks of pharmacological treatments, it is important to (NICE 2007):

- acknowledge the uncertainty surrounding the risks;

- explain the background risk of birth defects for pregnant women without a mental health disorder;
- describe risks using natural frequencies (such as 1 in 10) rather than percentages;
- in comparing risks, use the same denominator (for example, 1 in 100 and 25 in 100, rather than 1 in 100 and 1 in 4);
- if possible use decision aids in a variety of verbal and visual formats that focus on an individualised view of the risks; and
- provide written material to explain the risks (preferably individualised).

Good practice point

29 When the risk of birth defects is discussed, women should be provided with a detailed explanation of the baseline, absolute and relative risks to the fetus or infant of pharmacological treatment, as well as the potential impact on the offspring of treatment versus non-treatment.

8.2.3 Treatment choice

When prescribing a medication for a woman with a mental health disorder who is planning a pregnancy, pregnant or breastfeeding, health professionals should (NICE 2007):

- choose medications with lower risk profiles for the mother and the fetus or infant;
- start at a low dose, and slowly increase it to the lowest effective dose — this is particularly important where the risks may be dose related;
- use monotherapy in preference to combination treatment; and
- consider additional precautions for preterm, low birth weight or sick infants.

8.2.4 Monitoring and follow-up

Whether pharmacological treatment is commenced, continued or discontinued in the perinatal period, ongoing review of the woman's psychological wellbeing is essential.

- Women who decide to commence medication should be given suitable information about potential side effects, interactions with any other medications, and delay in onset of response. Women choosing to commence SSRI therapy should be advised of the potential risk of worsening in anxiety and agitation and an increased prevalence of suicidal thoughts due to initial side effects in the first 3 weeks, and the benefits of having extra support during this time.
- Shortly after treatment is initiated, women should be assessed for side effects and/or lack of initial response (normal delay in onset of response of 2–3 weeks for all psychotropic medications), and then monitored regularly throughout the perinatal period.
- Women who decide to discontinue medication during pregnancy or breastfeeding need to be monitored for discontinuation/withdrawal symptoms and signs of relapse.

It is important to differentiate between the effects of medication withdrawal and the symptoms of relapse.

- Effects of discontinuation tend to manifest more quickly (within days) with physical symptoms including jitteriness, 'brain shakes' and a sense of electric shocks, together with agitation and anxiety.
- A relapse of depression tends to manifest more slowly (within weeks) with the psychological symptoms the woman experienced in previous episodes (e.g. irritability, negative thinking).

8.3 Pharmacological treatments in the antenatal period

In early pregnancy the risks of early pregnancy loss or birth defects are primary concerns in decision-making about the use of psychotropic medications. In later pregnancy the main risk associated with psychotropic medication use is poor neonatal adaptation, which could relate to toxicity or withdrawal following birth and the possibility of long-term impact on the infant's neurodevelopment (SIGN 2002).

The following sections outline recent findings on the risks of birth defects, adverse obstetric outcomes, adverse neonatal outcomes and effects on the long-term neurodevelopment of the infant associated with the use of psychotropic medication in pregnancy.

8.3.1 Depression

The NICE review (NICE 2007) found some evidence of the efficacy of antidepressants in the treatment of depression in the postnatal period, particularly fluoxetine. Studies into the effects of antidepressant use during pregnancy have tended to focus on potential harms associated with SSRIs. The body of evidence on serotonin-norepinephrine reuptake inhibitors (SNRIs) and tricyclic antidepressants (TCAs) is more limited.

Selective serotonin reuptake inhibitors

- *Birth defects* — Most studies find no consistent pattern of abnormalities with a specific SSRI (citalopram, escitalopram, fluoxetine, fluvoxamine, paroxetine or sertraline) in the first trimester (Einarson & Einarson 2005; de las Cuevas & Sanz 2006; Rahimi et al 2006; Bellantuono et al 2007; Cipriani et al 2007; Maschi et al 2007; Einarson et al 2009). An association between paroxetine exposure and infant cardiovascular malformations has been reported (Bellantuono et al 2007; Looper 2007; Reis & Källén 2010), although a recent meta-analysis (O'Brien et al 2008) and a large cohort study (Einarson et al 2008) found no significant association.
- *Obstetric outcomes* — There appears to be a significant association between SSRI use in pregnancy and mild degrees of prematurity (de las Cuevas & Sanz 2006; Gentile 2007; Maschi et al 2007), low birth weight (Lattimore et al 2005; Gentile 2007), and first trimester miscarriage (Hemels et al 2005; Rahimi et al 2006).
- *Adverse neonatal outcomes* — Adverse outcomes reportedly associated with SSRI exposure in late pregnancy include a spectrum of symptoms referred to as poor neonatal adaptation (neonatal withdrawal syndrome). These include low Apgar score, lethargy, abnormal or lack of crying, jitteriness and diminished response to pain stimulus (Lattimore et al 2005; Moses-Kolko et al 2005; de las Cuevas & Sanz 2006; Gentile 2007; Galbally et al 2009) and are described as non-severe and self-limiting, with recovery usually within 48 hours of symptom initiation (de las Cuevas & Sanz 2006).

  SSRI exposure has in some studies been associated with a higher risk of the infant developing neonatal persistent pulmonary hypertension (NPPH), a rare condition with an estimated rate in the unmedicated population of 1–2 per 1,000 among all infants. While some studies have demonstrated that late exposure to SSRI increases the risk of NPPH (Chambers et al 2006; Källén & Olausson 2008), this association was not confirmed in more recent studies (Andrade et al 2009; Wichman et al 2009). The neonatal morbidity is self-limited and, in most cases, mild (Koren & Boucher 2009). Even if an association between SSRI intake during pregnancy and development of NPPH were eventually confirmed, the absolute risk would not be substantially different from that observed in the general population (Tuccori et al 2009).
- *Long-term neurodevelopment of infant* — The limited amount of evidence concerning the impact of SSRIs on offspring cognitive outcomes is reassuring in terms of long-term neurodevelopmental outcomes (Nulman 2002; Lattimore et al 2005; de las Cuevas & Sanz 2006), although there have been some reports of delay in motor development (Casper et al 2003).

Serotonin-norepinephrine reuptake inhibitors

There is limited evidence on the use of SNRIs in the antenatal period, with most available evidence concerning venlafaxine.

- *Birth defects* — The available evidence suggests that use of venlafaxine is not associated with an increased risk of major birth defects (Einarson & Einarson 2005; Bellantuano et al 2007).
- *Adverse neonatal outcomes* — Exposure to venlafaxine *in utero* has been associated with 'neonatal withdrawal syndrome' (Moses-Kolko et al 2005) and neonatal seizures (Pakalapati et al 2006).

Other antidepressants

There is a lesser body of evidence on harms associated with the use of TCAs or monoamine oxidase inhibitors (MAOIs) in pregnancy. While some studies show a reduced risk for the infant with maternal TCA use (NICE 2007), rates of completed suicide in the general population are higher with TCA use than with SSRI use (Tiihonen et al 2006).

- *Adverse neonatal outcomes* — Side effects of *in utero* exposure to TCAs are similar to those of SSRIs (i.e. premature delivery, low birth weight, neonatal distress, respiratory problems, hypoglycemia, cyanosis, jitteriness, convulsions, decreased Apgar score and the need for special-care nurseries) but have been reported to be more severe (Källén 2004; Looper 2007; Reis & Källén 2010).

Good practice points

30 If a decision is made to commence or continue antidepressant medication during pregnancy, use of SSRIs can be considered as this is the antidepressant category about which most is known. The current evidence on SSRIs shows no consistent pattern of additional risk of birth defects. While the safety of TCAs is supported by a lesser body of evidence, they can also be considered, especially if they have been effective previously.

31 If a decision is made to discontinue or decrease antidepressant medication, it is important to gradually taper the dose, closely monitor and have a plan to identify relapse early.

32 Withdrawal symptoms of antidepressants need to be distinguished from symptoms of relapse, therefore close monitoring post discontinuation/reduction is essential. Expert psychiatric advice should be sought if necessary.

33 Guidelines for the use of antidepressants in the general population should be consulted (see Appendix 6).

Further guidance can be found online (e.g. Therapeutic Goods Administration [TGA] website) or through telephone support (see Appendix 6).

8.3.2 Anxiety disorders

Anxiety disorders requiring pharmacological treatment are generally treated with SSRIs (see above) or a limited course of benzodiazepines.

Benzodiazepines

The findings of studies into the effects of benzodiazepine use in pregnancy are summarised below.

- *Birth defects* — In contrast to earlier retrospective studies, more recent prospective, controlled studies have not shown an increase in orofacial cleft defects resulting from use of benzodiazepines in pregnancy (Dolovich et al 1998; Wikner et al 2007).
- *Obstetric outcomes* — The use of benzodiazepines and hypnotic benzodiazepine receptor agonists in pregnant women may increase the risk of preterm birth and low birth weight (Wikner et al 2007).
- *Neonatal outcomes* — Use of benzodiazepines and hypnotic benzodiazepine receptor agonists in pregnancy may increase the risk of adverse neonatal outcomes (e.g. low Apgar score after late exposure)(Wikner et al 2007).
- *Long-term neurodevelopment of infant* — No conclusions have been drawn regarding long-term neurobehavioral outcomes associated with *in utero* benzodiazepine exposure.

Good practice points

34 Use of benzodiazepines can be considered for short-term treatment of severe anxiety in pregnant women while awaiting the onset of action of an SSRI or TCA. Long-acting benzodiazepines should be avoided as much as possible.

35 Guidelines for the use of benzodiazepines in the general population should be consulted (see Appendix 6).

8.3.3 Bipolar disorder

Mood stabilisers

While many anticonvulsants are used as mood stabilisers, the majority of the information available on their safety profile is in epileptic women. Lithium, however, is a mood stabiliser alone and thus the safety evidence is from women with bipolar disorder.

Anticonvulsants

Antiepileptic medications (e.g. carbamazepine, sodium valproate and lamotrigine) have been used as mood stabilisers. Several of these medications are folate antagonists. Anticonvulsant use in pregnancy is associated with an increased risk of major birth defects, with rates being highest for polytherapy (Matalon et al 2002; Meador et al 2008), and is dose dependent (Meador et al 2008), with the risks being highest when using sodium valproate (Bowden 2003; Koren et al 2006; Meador et al 2006; 2008). Conclusions have not been drawn regarding adverse neonatal outcomes associated with *in utero* anticonvulsant exposure. Polytherapy appears to be more commonly associated with poorer developmental outcomes at an early age (Adab et al 2004).

Women taking medications that are folate antagonists (e.g. carbamazepine, lamotrigine) should be encouraged to take high-dose folate supplements preconception and during the first trimester.

Sodium valproate

- *Birth defects* — There is an up to six-fold increase (rates of up to 20%) in major birth defects (neural tube defects) among infants exposed to sodium valproate *in utero* compared with the general population (rates of 1–4%) (Koren et al 2006). The neural tube closes by the 25th day post conception and consequently may have closed — or failed to close — by the time many pregnancies are confirmed (NICE 2007).
- *Long-term neurodevelopment of infant* — There is increasing evidence from both retrospective studies (Eriksson et al 2005; Viinikainen et al 2006) and a recent prospective study (Meador et al 2009) to suggest that neurodevelopmental deficits are associated with *in utero* exposure to sodium valproate, including autism, memory deficits and reduction in global IQ.

Good practice point

36 Sodium valproate **should not** be prescribed for bipolar disorder in women of childbearing age. Exposure in pregnancy is associated with an increased risk of major birth defects and adverse cognitive outcomes for the infant.

Carbamazepine

- *Birth defects* — A pooled analysis of 16 studies found that infants exposed *in utero* to carbamazepine reported a two- to three-fold increase in the rate of major birth defects compared with children of women without epilepsy (6.7% vs 2.34%) (Matalon et al 2002).
- *Obstetric outcomes* — Carbamazepine is associated with a decrease in gestational age at birth but not with birth weight, head circumference or spontaneous abortion (Matalon et al 2002).

Lamotrigine

- *Birth defects* — The limited data available do not suggest an increase in birth defects following exposure to lamotrigine, with incidence rates of less than 3% (Meador et al 2008).

Lithium

Lithium is regularly used on a maintenance basis in the prevention of relapse of bipolar disorder (SIGN 2002). Current practice for women with bipolar disorder who plan to become pregnant ranges from discontinuation of lithium treatment accompanied by close monitoring or prescription of antipsychotic medication, through to maintenance of lithium throughout pregnancy in cases where the risk of relapse is significant.

Review of the risks associated with lithium treatment in pregnancy had the following findings.

- *Birth defects* — While earlier studies identified an increased risk of Ebstein's abnomaly (a rare congenital heart defect) from *in utero* exposure to lithium, a review of studies (Cohen et al 1994) concluded the risk was less than originally thought, increasing from 0.005% in the general population to between 0.05% and 0.1%.
- *Obstetric outcomes* — Low birth weight and preterm birth have been associated with lithium use in late pregnancy (Newport et al 2005).
- *Neonatal outcomes* — Low Apgar scores, low birth weight, and central nervous system and neuromuscular complications have been associated with lithium exposure at birth (Newport et al 2005).

There is insufficient evidence for conclusions to be drawn about long-term neurodevelopmental outcomes following use of lithium in pregnancy.

Higher lithium concentrations at birth are associated with more perinatal complications (Newport et al 2005). Measures taken to reduce or suspend lithium therapy before the birth require specialist consideration. Where possible, women continuing on lithium should deliver in a hospital with access to a special care nursery (Level 4 maternity service).

Good practice point

37 If a decision is made to discontinue or decrease a mood stabiliser during pregnancy it is important to closely monitor and have a plan to identify relapse early.

Antipsychotics

First-generation antipsychotics

- *Birth defects* — Evaluation of haloperidol and penfluridol (which is not currently approved by the TGA) use in pregnancy (Diav-Citrin et al 2005) found no difference in the rate of major birth defects between the exposed and control groups, suggesting that these medications do not pose a major risk.
- *Obstetric outcomes* — Significantly lower birth weight, gestational age and a significantly higher rate of preterm birth have been associated with the use of haloperidol and penfluridol (Diav-Citrin et al 2005).

There is insufficient evidence for conclusions to be drawn about neonatal or long-term neurodevelopmental outcomes following use of first-generation antipsychotics in pregnancy.

Second-generation antipsychotics

Atypical antipsychotics include olanzapine, quetiapine, risperidone, clozapine, ziprasidone and aripiprazole. The placental transfer of these antipsychotics is sufficient to produce detectable umbilical cord plasma concentrations. However, therapeutic ranges or toxic levels have not been defined (Newport et al 2007).

- *Birth defects* — Registry data of drug manufacturers show no pattern of birth defects associated with the use of second-generation antipsychotics (Einarson & Boskovic 2009). A non-significant trend toward adverse outcomes among infants exposed to olanzapine has been reported (Newport et al 2007) and a recent population-based study appears to confirm the probable lack of risk of birth defects associated with second-generation antipsychotics (Reis & Källén 2008).
- *Obstetric outcomes* — There is conflicting evidence on the effect of second-generation antipsychotics on obstetric outcomes. Significantly higher birth weights and size for gestational age have been reported among infants exposed to second-generation antipsychotics (particularly olanzapine and clozapine) compared to first-generation antipsychotics (Newham et al 2008). However a trend toward lower birth weights (Newport et al 2007), and no significant differences between the groups (McKenna et al 2005; Lin et al 2010) have also been reported.

Good practice point

38 Clozapine **should not** be initiated during pregnancy. Wherever possible an alternative antipsychotic should be used for women contemplating pregnancy or already taking clozapine on presentation.

8.4 Pharmacological treatments in the postnatal period

During breastfeeding many medications taken by the mother are excreted in the milk and ingested by the infant, with consequent concerns about their potential impact on the infant in terms of short-term effects and longer-term neurodevelopment (SIGN 2002).

Breastfed infants whose mothers are taking medication for depression or related disorders should be monitored for side effects of exposure. Where an infant is premature, of low birth weight or ill, use of medications in breastfeeding mothers should be considered with particular care and specialist advice sought.

8.4.1 Depression

Selective serotonin reuptake inhibitors

The levels of SSRIs in breast milk are relatively low (Weissman et al 2004; Eberhard-Gran et al 2006; Cipriani et al 2007). There is some evidence that infant plasma levels of 10% of the maternal serum level can occur in infants exposed to citalopram, clomipramine, dothiepin, fluvoxamine and fluoxetine, although this is based on data from a small number of infants (Weissman et al 2004).

Although there is good quality evidence regarding the levels of the various pharmacological agents in breast milk, there is minimal evidence regarding the adverse effects of SSRI exposure via breast milk. Adverse events attributed to fluoxetine (which has a long half-life and can accumulate in the infant) and citalopram exposure include crying, jitteriness, decreased sleep, gastrointestinal distress, and irritability (Eberhard-Gran et al 2006).

Good practice point

39 Women with healthy full-term infants who plan to breastfeed can be advised that SSRIs are not contraindicated.

Serotonin-norepinephrine reuptake inhibitors

Evidence on SNRIs in breastfeeding is limited. For venlafaxine, levels of up to 9% of the maternal weight-adjusted dose have been identified (Ilett et al 1998; Ilett & Kristensen 2005). Although no adverse effects were observed in a small cohort of infants, avoidance of venlafaxine unless it is the preferred prescription for the mother (Ilett & Kristensen 2005) and close observation of the infant (Ilett et al 1998) have been advised.

Tricyclic antidepressants

There is limited evidence on the effects of use of TCAs in breastfeeding women but they appear to be in relatively low levels in breast milk (Eberhard-Gran et al 2006), with one follow-up study suggesting no long-term negative cognitive effects (Buist et al 1993; Buist & Janson 1995; Weissman et al 2004).

8.4.2 Anxiety disorders

Benzodiazepines

Benzodiazepines with short half-lives (e.g. oxazepam, lorazepam) are transferred in only low concentrations to breast milk (Eberhard-Gran et al 2006). Diazepam has a longer plasma half-life and is relatively lipid soluble.

Good practice point

40 Use of benzodiazepines can be considered for short-term treatment of severe anxiety in breastfeeding women while awaiting the onset of action of an SSRI or TCA.

8.4.3 Bipolar disorder and puerperal psychosis

Mood stabilisers

Anticonvulsants

There is currently little evidence for the safety of anticonvulsants and mood stabilisers during breastfeeding (Eberhard-Gran et al 2006; Gentile 2006), although infant serum valproate levels 0.9–2.3% of the mother's serum levels have been reported (Bowden 2003).

Lithium

There is conflicting evidence on the safety of lithium in breastfeeding (Eberhard-Gran et al 2006). Limited data suggest that lithium in milk can adversely affect the infant when its elimination is impaired, as in dehydration or in newborn or premature infants. Neonates may also be exposed to lithium through the placenta. The long-term effects of lithium on infants are not known, but limited data indicate no obvious problems in growth and development (Grandjean & Aubrey 2009).

Although lithium appears on many lists of drugs contraindicated during breastfeeding, other sources do not consider it a contraindication, especially in infants over 2 months of age and during lithium monotherapy. Lithium may be used with caution in mothers of full-term infants who are willing and able to monitor their infants. Some investigators recommend monitoring infant serum lithium, serum creatinine, blood urea nitrogen, and thyroid-stimulating hormone (TSH) every 4–12 weeks during breastfeeding and maternal lithium therapy (Ketter et al 2006; Viguera et al 2007b).

Infants who appear restless or ill should not be exposed to lithium-containing breast milk. In these situations there should be a discussion with the woman and her significant other about continuing breastfeeding.

Good practice points

41 If a decision is made to not recommence a mood stabiliser immediately after the birth, it is important to closely monitor and have a plan to identify relapse early, given the increased risk of relapse at this time.

42 The passage of lithium into breast milk is more variable than other psychotropic medications. If the woman chooses to breastfeed, lithium should be used with particular caution. The decision should be made in consultation with a specialist physician and where possible there should be ongoing specialist monitoring for potential adverse effects on the breastfed infant.

Antipsychotics

Evidence concerning first-generation antipsychotics and breastfeeding is lacking. Data regarding the safety of second-generation antipsychotics in breastfeeding are also limited (Eberhard-Gran et al 2006; Gentile 2006; 2008). However, there is evidence from observational studies to support avoiding the use of clozapine (Gentile 2008). Olanzapine passes into breast milk in small doses (median 1.6% of maternal weight-adjusted dose)(Croke et al 2002). There is insufficient evidence on the use of the other antipsychotics in breastfeeding to draw any conclusions (Gentile 2006; 2008).

Good practice points

43 Where possible, clozapine is best avoided in breastfeeding mothers due both to relatively high breast milk concentrations and possible toxic effects for the infant.

44 If antipsychotics are prescribed, consideration needs to be given to the woman's physical activity levels and diet to minimise weight gain associated with antipsychotic use.

8.5 Electroconvulsive therapy

Electroconvulsive therapy (ECT) is a specialist treatment that is only used for treating a major mental health disorder during pregnancy when the risk of untreated symptoms — such as psychotic symptoms, catatonia, or strong suicidal urges — may outweigh those of ECT and all reasonable avenues have been explored. The treatment is only used in the tertiary healthcare setting and can only be prescribed for pregnant women by a perinatal psychiatrist. However, it is effective for treating major mental health disorders during pregnancy, with low risks of adverse events (Anderson & Reti 2009). The treatment is conducted with close monitoring of the mother and her fetus in a collaborative manner by a psychiatrist, obstetrician and specialist obstetric anaesthetist.

8.6 Practice summary — pharmacological treatments

The available evidence on the effects and risks of pharmacological treatments in the perinatal period is limited and/or conflicted, with new data continually emerging. Currently, the evidence base is strongest for SSRIs, anticonvulsants and lithium.

Due to the paucity of evidence, no absolute assurance can be given about any of these medications.

The guidance below is necessarily generic, because practice will vary depending on the individual woman and the setting. Decisions must be made on a case-by-case basis, taking into account individual characteristics such as age, weight and ethnicity, and possible interactions with other medications. A general principle is to start with the lowest dose possible and increase the dose slowly.

Table 8.1 Considerations in decision-making about pharmacological treatments in the antenatal period in the Australian context

Possible benefits to mother	Possible risks to pregnancy or infant
Antidepressants	
SSRIs	
• Maintaining treatment reduces risk of relapse	• Spontaneous abortion (after exposure in 1st trimester) • Preterm birth* • Low birth weight* • Admission to special care nurseries* • Poor neonatal adaptation • Possible neonatal persistent pulmonary hypertension • Possible delayed motor development
SNRIs (venlafaxine)	
	• No association with increased risk of birth defects; but very limited evidence base • Some association with 'neonatal withdrawal syndrome'
TCAs	
	• Some studies show a reduced risk for the infant compared to SSRIs • Rates of maternal suicide may be higher than with SSRI use
Anxiolytics	
Benzodiazepines	
• Reduced early hyperarousal when started after the birth • Early effect in panic attacks and severe anxiety disorder	• No apparent increase in orofacial cleft defects in recent studies • Sedation • Preterm birth • Low birth weight • Low Apgar score
Mood stabilisers	
Anticonvulsants	
• Treat manic episode • Help to reduce relapse	• Increased risk of major birth defects with sodium valproate (20%) • Decrease in gestational age at delivery • Potential neurodevelopmental deficits

Possible benefits to mother	Possible risks to pregnancy or infant
Mood stabilisers (cont)	
Lithium	
• Treat manic episode • Helps to reduce relapse	• Very small increased risk of birth defects
First-generation antipsychotics	
• Treat manic episode • Treat psychotic symptoms	• Low birth weight • Low gestational age • Preterm birth
Second-generation antipsychotics	
• Treat manic episode • Treat psychotic symptoms • Help reduce relapse	• Unknown

* Where these occur, they are predominantly of a minor degree.

Table 8.2 Considerations in decision-making about pharmacological treatments in the postnatal period in the Australian context

Specific regimens around the timing of breastfeeding are not considered necessary as on balance, there is a very small exposure to the infant from breast milk. The exception to this is in women taking lithium (see below).

Decision-making about breastfeeding may have to take sleep issues into consideration (e.g. to balance the possible harms of sleep deprivation against the benefits of breastfeeding), particularly for women with bipolar disorder.

Medication	Considerations
SSRIs	• No contraindication in breastfeeding • Fluoxetine can accumulate in the infant and 'jitteriness' has been described
SNRIs	• Venlafaxine levels in breast milk were at the higher end of the accepted safe range in some studies
TCAs	• Low levels in breast milk
Benzodiazepines	• Short-acting benzodiazepines may be used for a limited period • Long-acting benzodiazepines should be avoided
Anticonvulsants	• Limited evidence for safety
Lithium	• Variable concentration in breast milk • Close monitoring of infant required including serum levels • Specialist consultation where possible
Antipsychotics	• Clozapine contraindicated • Consideration to be given to woman's physical activity levels and diet

Health professionals are advised to refer to the TGA electronic Therapeutic Guidelines and Medications Handbook for current advice.

9 Service delivery of perinatal mental health care

All Australians should expect routine health care that is able to identify families under stress and provide them with quality care by the most direct and cost-effective path (Perinatal Mental Health Consortium 2008). In order to address the varying needs of women at risk of or experiencing mental health problems during the perinatal period, the evidence-based recommendations on assessment and interventions given in preceding chapters of these Guidelines need to be implemented within the context of a comprehensive system of care. This system should be:

- centred on the needs of women and their families;
- effectively networked and collaborative, involving a wide range of services and sectors;
- underpinned by the effective integration of mental health care into primary care services;
- locally adaptable, flexible and able to evolve over time; and
- able to facilitate quality local pathways to care.

There is action at national, jurisdictional and local levels in Australia to develop an integrated and collaborative system of perinatal mental health care, together with a policy framework within which the Guidelines will be implemented.

The National Perinatal Depression Initiative (NPDI) is the world's first national approach to perinatal depression. The Australian Government has committed $55 million over 5 years to the NPDI, with an additional $30 million contributed by State and Territory governments.

The NPDI was informed by key aspects of *beyondblue's National Action Plan for Perinatal Mental Health* (NAP), a coordinated approach that translated into policy and practice the outcomes of a 4-year research project involving 40,000 pregnant women and 12,000 new mothers in 43 health services across Australia.

These Guidelines will be integral to the implementation of the NPDI, as they provide the evidence base to inform best-practice mental health care in the perinatal period, regardless of the setting or situation. Their role is to guide implementation where it is already occurring and to promote change towards consistent practice where it is not.

This chapter summarises the evidence for existing models of care from Australian and international guidelines, and outlines the essential elements of a system for optimal perinatal mental health care in Australia that is based on collaboration and is flexible enough to be adapted for local use. It is acknowledged that implementing care pathways will be particularly challenging in rural and remote areas, where the same levels of service do not exist as in urban areas (see Section 9.2).

9.1 Existing models of care

There is a paucity of evidence on models of mental health care specific to the perinatal period. However, evidence from research in the general population indicates that models of mental health care are increasingly based on elements of collaborative care. This is a team-based model of care where people with depression and their health professionals work together in an interactive, iterative process to find the most effective approaches to managing their depression (Katon & Seelig 2008).

The enhanced management of depression in primary care is central to the World Health Organization (WHO) strategy for mental health (Gilbody et al 2006; WHO 2008). Gilbody (2004), reporting for the WHO on the effectiveness of capacity building of primary care health professionals in the detection and management of depression in the general population, found substantial evidence to support the effectiveness of collaborative care in improving outcomes. Complex strategies were generally more effective, incorporating elements such as training and continuing education, use of case managers or coordinators, development of care and relapse prevention plans, integration of specialised services with primary care, and changes in treatment protocols to include screening and routine follow-up of individuals during and after treatment (Kates & Mach 2007). Another important element appears to be providing interactive education and peer support to assist people with mental health disorders to manage their problems.

The evidence suggests that collaborative care interventions are more effective if supported by system changes that reinforce their impact. For example, screening for depression and related disorders only leads to better outcomes if it is effectively linked with continuing treatment (Kates & Mach 2007).

To meet the varying needs of people with depression and related disorders, implementation of collaborative care usually occurs through a 'stepped' process of increasing intensity of care for women based on their symptoms (Katon & Seelig 2008). For perinatal mental health care, such a model would involve an individual pathway being developed for each woman that maintains continuity of care:

- early steps in the pathway (i.e. psychosocial assessment) are provided by maternity care health professionals in the public or private sectors; and
- monitoring, further assessment and treatment, if required, are provided by increasingly specialised health professionals in primary, secondary or tertiary mental health services — this may occur through close networks between maternity care and mental health care providers, or through case management, where a case manager or a joint case management team coordinates the care pathway.

Services and approaches will differ depending on the local situation. However, all care pathways should be flexible enough to respond to women's changing needs over time while still providing continuity of care. Many existing models of perinatal mental health care in Australia and internationally incorporate these elements of collaborative care.

9.1.1 Summary of the evidence — models of perinatal care

The initial approach of the systematic literature review was to identify publications evaluating specific models of care (e.g. the use of antenatal day care centres or the risks associated with early discharge). However, it became clear that this approach would not identify a large number of studies. Consequently, a broader approach was taken to identify models of care described in existing clinical practice guidelines and other sources.

The guidance on models of care in the identified guidelines is not evidence-based, but is drawn from evidence from the broader depression literature and on expert clinical guidance. While principles of depression management derived from research in general populations can be applied to women in the perinatal period, there is a need to take into account their unique personal and social characteristics, and the barriers (e.g. fear of stigma) that prevent many women from seeking help for distress and depression at this time (Gjerdingen et al 2008). Models of collaborative care for perinatal mental health are currently being tested (e.g. Gjerdingen et al 2008).

Table 9.1 Approach and main elements of international and Australian guidelines

Guideline	Overall approach	Main elements
International guidelines		
Antenatal and Postnatal Mental Health: Clinical Management and Service Guidance (NICE 2007)	Managed network model — linked groups of health professionals and organisations from primary, secondary and tertiary care working in a coordinated manner Framework centred on stepped-care Based on evidence from broader depression literature	• Broad structure of all networks common, but precise composition and details of protocols for movement between different levels vary • Referral pathways for women requiring specialist care and sources of advice available to health professionals without specialist training managed using agreed protocols • Active working relationships between those in different parts of the network, shared care protocols, shared training programs, shared user groups, explicit pathways of care following a woman's journey through care
Postnatal Depression and Puerperal Psychosis: A National Clinical Guideline (SIGN 2002)	Integrated care pathways (ICP) for women with depression or puerperal psychosis in the postnatal period Based on survey to determine common elements of ICPs used in Scotland in 2001	• Screening, discussion of options and collaborative formulation of individual ICP • Criteria for consultation within primary care and for referral • Patient-held ICP • Supported by broader information package and staff education and supervision
Reproductive Mental Health Guidelines (British Columbia Perinatal Health Program [formerly the British Columbia Reproductive Care Program] 2003a; 2003b)	Comprehensive approach for discharge planning and community follow-up of women with a mental health disorder in the perinatal period, based on integrated case management	• Assignment of a case manager to coordinate care of women diagnosed with a mental health disorder • Multidisciplinary case conferences • Proactive assessment, planning, review, and implementation of case plans • Follow-through/follow-up
Australian guidelines		
SAFE START model as articulated in NSW Health's *Families NSW Supporting Families Early* Package (NSW Department of Health, 2009)	Mental health pathways defined according to need, ranging from subsyndromal to hospital-based mental health care Mental health services have a consultative and educational role to support the clinical capacity of primary care	• Most care provided through primary care with mental health services providing advice, support, mental health assessments and brief interventions as required • Care coordination for women with a long-term mental health disorder • Care is home-based, community-based or hospital-based depending on need
Perinatal Depressive and Anxiety Disorders (WA Statewide Obstetrics Support Unit 2006)	Antenatal and postnatal psychosocial assessment to identify need and risk, followed by triaging of women with an EPDS score over 12 and provision of management as appropriate	• Mild and moderate depression managed in primary care • Partnership with secondary mental health services for severe depression • Written care plan for women at significant risk of a perinatal depressive or anxiety disorder

Guideline	Overall approach	Main elements
Australian guidelines (cont)		
Healthy Babies for Mothers with Serious Mental Illness: A Case Management Framework for Mental Health Clinicians (Hauck et al 2008)	Case management framework for care of women with a serious mental health disorder, before pregnancy through to postnatally	• Promotes holistic approach where women are cared for by a small team of health professionals that maintain communication with each other • 'Small Known Team' devises strategies for early detection and monitoring of pregnancy and preparing for birth • Management plan developed for postnatal period to ensure that referrals or liaisons with community support agencies are in place before the birth
Policy on Recognition and Management of Postnatal Depression and Guidelines and Protocol for use of the Edinburgh Postnatal Depression Scale (EPDS) Screening Tool (SA Dept Health, Family, Child and Youth Health Services 2005)	Encompasses early screening, mental health assessment, service response, intensive case management, the use of community hubs, and postnatal care	• Initial screening for risk factors by midwife • Referral of women with moderate or significant adversity by early intervention coordinator for mental health assessment by allocation team • Collaborative decision about appropriate referral pathway to community hub or to intensive case management • Continuing postnatal monitoring • Includes crisis plan for mothers expressing inability to cope, suicidal ideation, or other severe symptoms of depression or anxiety
Assessment and Care for Optimal Perinatal Mental Health St John of God Health Care (2004)	Antenatal and postnatal assessments reviewed to identify need and risk, provide early intervention and health promotion and refer on as required	• Routine assessments using EPDS • Severity of symptoms and/or risk informs the pathway to care

Although there is marked variation between the models identified, there are also many common elements that conceivably constitute 'best practice'. Among these are:

- regular and routine assessment processes;
- a clear decision-making period and process;
- clear care pathways associated with each type of assessment outcome;
- linkages between pathways and service provider networks supported by defined information management systems and communication protocols; and
- quality evaluation and improvement.

It is acknowledged that the benefits and cost-effectiveness of these approaches have not been tested in Australia.

9.1.2 Cost-effectiveness

The development of the NAP included modelling the direct costs of delivering a national program (Perinatal Mental Health Consortium 2008). The NAP estimates included the costs of routine psychosocial assessment and associated workforce training, but not the direct costs of establishing (where necessary) and sustaining recommended primary, secondary and tertiary pathways to care.

A recent UK study (Paulden et al 2009) concluded that formal identification methods for detecting depression in the perinatal period do not represent value for money for the UK National Health Service, mainly due to the costs of managing women who are misdiagnosed with depression at a one-off screen who do not subsequently turn out to have depression. This study highlights the need for care to be taken as routine psychosocial assessment is integrated into mainstream perinatal care, to ensure that routine psychosocial assessment is used to identify women who may be at increased risk, but does not lead to misdiagnosis and unnecessary treatment.

9.2 Implementing care pathways in Australia

The fact that most women are regularly reviewed during the perinatal period provides a framework for integrating psychosocial assessment and care into mainstream perinatal service delivery. However, in Australia, perinatal care is delivered in many different settings by a wide range of providers, and there are also differences in the structure of care between jurisdictions. The process to be followed will differ within regions and between services.

In the *beyondblue* Australia-wide study, routine psychosocial assessment was found to be generally acceptable to both women and health professionals (Buist et al 2006), providing it was accompanied by sensitive explanation and staff training and support. It will be up to services in both the public and private sectors to determine how best they can identify women with distress or a mental health disorder, and work with them to develop an appropriate pathway to care.

As implementation of care pathways will take place at a local level, it is particularly important that all health professionals caring for women in the perinatal period, in both the public and private sectors:

- communicate with each other at a local level about how best to assist local women and their families; and
- use existing networks where these exist (e.g. Mental Health Practitioner Networks) or form new local networks to assist communication.

Rural and remote settings

These Guidelines acknowledge that care pathways in rural, remote and very remote Australia are different to those in urban settings and options can be limited. This effects women and families living in these areas, many of whom are Aboriginal and Torres Strait Islander and known to be at greater risk of severe levels of distress and suicide.

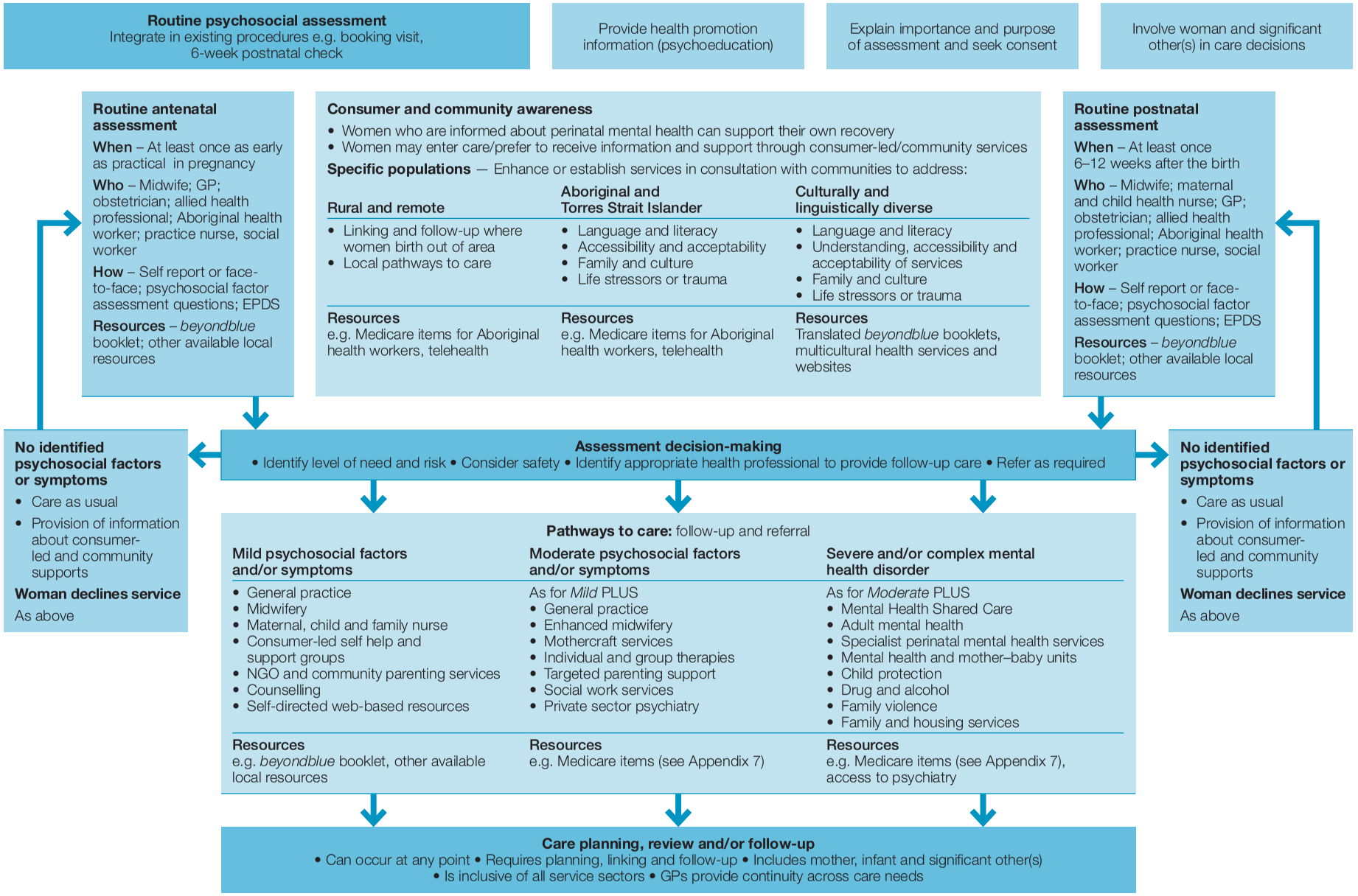
The onus to provide care in such settings will lie largely with the local primary care health professionals; midwives, nurses, Aboriginal and Torres Strait Islander health workers, GPs, or a combination of these. They will need to be educated and supported by others, including specialists when required, and the use of appropriate health technologies enlisted.

Contemporary approaches including telemedicine, support lines and online services are becoming increasingly available and will be extremely valuable in the rural and remote contexts. It is especially important for health professionals in rural and remote areas to use family and community networks where possible and explore community initiatives and existing programs, to improve pathways to care for women in their region.

Innovative research needs to be undertaken in this area to explore more suitable and sustainable models of care as a matter of urgency (see Section 10.2).

The following pathway for optimal perinatal assessment and care is adapted from the NAP and can form the basis for an integrated system of perinatal mental health care for Australia.

Figure 9.1 Assessment and care for optimal perinatal mental health



Source: Adapted from Perinatal Mental Health Consortium (2008).

10 Areas for further research

The National Perinatal Depression Initiative (NPDI) aims to improve prevention and early detection of antenatal and postnatal depression and related disorders as well as provide better support and treatment for expectant and new mothers experiencing these conditions. As one component of the NPDI, these Guidelines provide a framework that will encourage necessary research into perinatal mental health.

While most treatment options for mental health disorders are also likely to be applicable in the perinatal period, there are points of difference specific to the perinatal context including: impact of maternal illness on the short- and long-term wellbeing of the child and other family members; impact of exposure to medication on infant outcomes; and opportunities for optimising routine detection of risk factors and symptoms as well as access to early intervention and treatment options. It is therefore important to develop targeted research evidence for women at a risk of, or living with, emotional distress or mental illness, during the perinatal period.

In order to successfully address the gaps in available evidence relating to mental health during the perinatal period for the Australian population, a research framework must consider the feasibility, appropriateness and potential application of available evidence and future research questions relevant to the Australian context. Future research programs need to include awareness of studies that are already being undertaken internationally as well as in Australia.

10.1 Methodological issues for consideration

The following methodological issues were considered when developing a rationale for further research in perinatal mental health.

- Avoiding unnecessary duplication in research undertaken in the perinatal population. For example, prevalence studies and research relating to the cost of routine psychosocial assessment are considered elsewhere or currently undertaken in international contexts. Where appropriate, however, replication of existing studies may be warranted in order to develop a substantial body of evidence within specific population groups and in the Australian context.
- Avoiding unnecessary duplication of relevant research undertaken in the general population. For example, studies assessing the efficacy of pharmacological treatments and standard psychological therapies in the general population will also be relevant for women during the perinatal period. However, in other areas the lack of relevant evidence during the perinatal period makes it difficult to determine whether population-wide data can be generalised to the perinatal population; for example, the benefits of non-pharmacological interventions and mother–infant therapies require specific evaluation in the perinatal population.
- Considering ethical issues pertaining to pharmacological treatments during the perinatal period, which will limit optimal methodology for harms-related pharmacological studies (e.g. inability to conduct pharmacological randomised controlled trials in pregnancy to examine the impact of fetal exposure).
- Considering issues related to the feasibility of studies, such as the geographical spread of the study population and capacity to recruit adequate numbers within a period of time that allows the study to inform an update of the Guidelines. Wherever possible, Australian research should be linked with international studies to allow meta-analysis.
- Considering the appropriateness of studies to the primary care setting, including the need for intervention effectiveness studies in which the setting, methodology and design reflect the primary care setting.
- Making use of the results obtained from the evaluation of the implementation of the NPDI. Given that the NPDI includes a requirement for regular evaluation, this provides an opportune platform to harvest datasets and undertake further research. This could include evaluation of the feasibility, acceptability and adaptability of the Guidelines across settings and population groups.

10.2 Areas for future research

In light of the criteria outlined above, a number of areas for future research are recommended. It must be noted that the research areas recommended in these Guidelines do not represent the funding priorities of any funding bodies, nor do they reflect particular topics for evaluation relating to the NPDI or the Guidelines themselves. The subheadings below have been created to enable focus on general study domains but specific study questions may come under a number of domains listed below.

Psychosocial assessment:

- evaluating psychosocial assessment tools in terms of their feasibility and acceptability for use in the primary care health system;
- evaluating psychosocial assessment tools in terms of their effectiveness in identifying women/families at risk;
- investigating appropriate EPDS scores for use in specific cultural groups (e.g. Aboriginal and Torres Strait Islander women and women from culturally and linguistically diverse backgrounds);
- assessing the effectiveness of identification and treatment of perinatal mental health disorders in Aboriginal and Torres Strait Islander women;
- evaluating the assessment and management of bipolar disorder in the perinatal period or puerperal psychosis;
- developing information to assist pregnant and breastfeeding women to make decisions around their mental health care;
- evaluating existing anxiety tools for assessing anxiety in the perinatal period and measuring the prevalence of anxiety at this time; and
- developing a tool for assessing mother–infant interaction which is usable in the primary care setting.

Treatments and interventions:

- evaluating mother–infant intervention/therapies;
- investigating the safety for infants of pharmacological treatments used in the perinatal period;
- exploring physical or complementary treatments for preventing or treating depression and related disorders in the perinatal period; and
- developing management plans and pathways to care for women and families with complex needs and co-occurring disorders.

Pathways to care, service utilisation and clinical outcomes in at risk groups:

- tracking the mental health outcomes of women with and without vulnerable risk profiles;
- increasing help-seeking and overcoming barriers (consumer and health professional) to effective care;
- mapping and comparing pathways to care for different populations and in different settings:
- developing an evidence base to inform provision of suitable and sustainable health services in remote areas and assist in improving outcomes for Aboriginal and Torres Strait Islander women and their families — 'Closing the Gap';
- exploring measures to improve cultural responsiveness of maternity services in rural and remote areas, such as providing primary maternity services 'on country';
- identifying effective approaches to raising community awareness of depression and related disorders in the perinatal period; and
- developing models of care for depression and related disorders in the perinatal period.

Population/public health research in parallel with the NPDI evaluation:

- undertaking cost-effectiveness studies of routine psychosocial assessment and treatment; and
- establishing useful databases and data linkage systems at the jurisdictional level to enable examination of population data.

Appendices

1 Guidelines expert advisory committee membership and terms of reference

Membership of the Guidelines Expert Advisory Committee

Member	Representing/background
Professor Marie-Paule Austin (Chair) Perinatal Psychiatrist, St John of God Chair of Perinatal and Women's Mental Health (UNSW), NSW Member since September 2008	**Royal Australian and New Zealand College of Psychiatrists** (RANZCP) Professor Marie-Paule Austin is a perinatal psychiatrist and is Chair of the Guideline Expert Advisory Committee (GEAC). She was a collaborator in the *beyondblue* postnatal depression initiative 2000–2005; led the *beyondblue National Action Plan for Perinatal Mental Health* in 2007; and represented the RANZCP on the National Maternal Deaths Advisory Committtee. She has an extensive track record of research in mood disorders and perinatal mental health; and has been a key driver for perinatal mental health service development in NSW. Clinically she has two appointments as Director of the St John of God Mother–Baby Unit and Director of Consultation Liaison Psychiatry services at the Royal Hospital for Women in Sydney.
Dr Nicole Highet (Deputy Chair) Deputy CEO, *beyondblue: the national depression initiative*, VIC Member since September 2008	Dr Nicole Highet has a Doctorate in Psychology specialising in evaluating effective community treatments for postnatal depression. She is Deputy Chair of the Guidelines Expert Advisory Committee and Deputy Chief Executive Officer of *beyondblue*. In addition, Nicole currently has responsibility for *beyondblue's* community awareness and destigmatisation agenda, and oversees the implementation of the Australian National Perinatal Depression Initiative.
Professor Anne Buist Director, NE Women's Mental Health, Parent Infant Program, Austin Health, VIC Member since November 2009	Professor Anne Buist is a perinatal psychiatrist who has been a clinician and researcher in perinatal mental health for more than 20 years. Particular expertise includes drugs exposure and risks to the fetus/breastfed infant (masters thesis), childhood abuse as a risk factor for depression in the postnatal period (doctoral thesis), screening (Director of the *beyondblue* postnatal depression program 2001–05), as well as publications and experience on perinatal education (GPs, maternal and child health nurses). She has been the director of inpatient mother–baby units and perinatal outpatient programs (including attachment groups) in both public and private settings throughout this time.
Ms Lyn Chaplin Chair, blueVoices, *beyondblue*: *the national depression initiative*, VIC Member since September 2008	***beyondblue's* blueVoices carer** Ms Lyn Chaplin brings a carer's perspective to the GEAC.
Ms Jo Duffy Consumer representative, WA Member since September 2008	***beyondblue's* blueVoices consumer** Ms Jo Duffy brings a consumer perspective to the GEAC having experienced depression with the birth of her first child. Jo has been an active consumer representative and advocate in local, State and national settings for the past 6 years. She is Past President of the Post Natal Depression Support Association (PNDSA) (Inc), now known as From the Heart WA Inc.

Member	Representing/background
Ms Michele Dykman Perinatal & Infant Mental Health Services Monash Medical Centre, VIC Member since October 2009	**Australian Association of Maternal Child and Family Health Nurses** Ms Michele Dykman is a Registered General Nurse, Midwife, Maternal & Child Health Nurse, Mental Health Nurse, and Certified Lactation Consultant and has an Advanced Certificate in Perinatal and Infant Mental Health. Michele has worked with mothers and infants in the capacity of midwife, maternal and child health nurse, lactation consultant and mental health nurse for the past 28 years. Currently, Michele is employed by the Psychiatric Mother and Baby Unit Monash Medical Centre as senior clinician with the Perinatal and Infant Mental Health Service. In this role she is responsible for delivery of mental health training to various clinicians (Midwifery, Maternal and Child Health and Area Mental Health clinicians), and offers primary and secondary consultations to these services.
Mr Nick Janjic Proxy carer representative, NSW Member since December 2009	***beyondblue's* blueVoices carer** Mr Nick Janjic brings a carer's perspective to the Committee.
Dr Caroline Johnson Department of General Practice, University of Melbourne, VIC Member since October 2008	Dr Caroline Johnson is a GP with a special interest in primary mental health care, including the provision of perinatal mental health care in the general practice setting. In addition to her clinical work in this field, she has experience as a GP advocate for enhancing the quality of primary mental health care services. Caroline has conducted research on the management of depression in the general practice setting. She is also a medical educator who has delivered mental health training for GPs at the undergraduate, vocational and postgraduate levels.
Dr Sally Lambert Psychiatry registrar Hunter New England Area Health Service Member since January 2010	**Australian Indigenous Doctors' Association** Dr Sally Lambert is a Guringai woman from the Central Coast of NSW. She is a community member of the RANZP Aboriginal and Torres Strait Islander Mental health committee. She is passionate about issues facing Aboriginal and Torres Strait Islander people.
Dr Helen Lindner Senior Manager Membership and Member Groups, Australian Psychological Society, VIC Member since September 2008	**Australian Psychological Society** Dr Helen Lindner is a health psychologist. She has worked with women with perinatal mental health and adjustment problems, undertaken research into the psychological factors related to a broad range of women's health issues, including perinatal problems, and developed training for the perinatal non-directive counselling Medicare item.
Ms Rachel Lockey Midwifery Co-Director Integrated Maternity Services, Department of Health and Families, NT Member since August 2009	**Rural/remote area health professionals** Ms Rachael Lockey is a midwife, researcher and educator specialising in the field of health inequalities in relation to maternity care. She has been in the Northern Territory since 2007 and has worked in both Government and Aboriginal Community Controlled organisations.
Ms Philippa Middleton Guidelines Assessment Register (GAR) consultant from September 2008 – June 2010 Member since July 2010	Ms Philippa Middleton is a perinatal epidemiologist and Co-Director of the Australian Research Centre for Health of Women and Babies (ARCH) at the University of Adelaide. She has an extensive background in evidence-based health care, including preparation of systematic reviews, development of clinical practice guidelines and translation of research into practice.

Member	Representing/background
Professor Jeremy Oats Chair, Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity Member since September 2008	**Royal Australian and New Zealand College of Obstetricians and Gynaecologists** (RANZCOG) Professor Jeremy Oats is Co-Chair of the Australian National Evidence-Based Guidelines for Antenatal Care. Recently Clinical Director of Women's Services, Royal Women's Hospital Melbourne and Director of Victorian Maternity Newborn Clinical Network.
Ms Jennie Parham Principal Network Adviser, Mental Health Australian General Practice Network Member since May 2010	**Australian General Practice Network** (AGPN) Ms Jennie Parham is a clinical psychologist by profession and has worked in the mental health sector for more than 20 years in a variety of roles. In representing AGPN, Jennie brings knowledge and experience in delivering perinatal mental health programs through the Division network. She has a keen interest in enhancing referral pathways using the Access to Allied Psychological Services (ATAPS) and Better Access services in the screening, identification, assessment and treatment of perinatal mental health issues in the primary care setting.
Ms Carol Purtell National Program Manager, Perinatal Depression Initiative, *beyondblue: the national depression initiative*, VIC Member since April 2009	Ms Carol Purtell is a Registered Nurse with a Masters in Social Science (Counselling) with more than 35 years experience providing inpatient and outpatient mental health services. Areas of specialisation have included the development, management, evaluation and provision of group and individual treatment programs for those experiencing a variety of mental illnesses, including perinatal mental health disorders.
A/Prof Jonathan Rampono Chair Psychological Medicine, King Edward Memorial Hospital, WA Member since November 2009	Associate Professor Jonathan Rampono is a Consultant Psychiatrist and has been the Head of Department of Psychological Medicine at the Women's and Newborn Health Service in Western Australia for 15 years. He has actively managed patients with the range of perinatal mental health disorders from preconception counselling, through pregnancy and into the postnatal period. He established the Mother and Baby Unit on the grounds of the Women's Hospital. He has undertaken research into the exposure of the fetus and breastfed infant to psychotropic medication and is the author of a number of journal articles and textbook chapters.
Dr Jan Taylor Senior Lecturer, Disciplines of Nursing & Midwifery, Faculty of Health, University of Canberra, ACT Member since July 2009	**Australian College of Midwives** Dr Jan Taylor is a midwife, teacher and researcher who supports women and student midwives to better understand the early transition time following birth. Jan conducts research into the links between fatigue and women's mental health in the perinatal period and works to inform health professionals of the processes around early mothering.
Dr Deborah Wiens Senior Medical Officer, Mater Child and Youth Mental Health Service, QLD Member since October 2008	**Royal Australian College of General Practitioners** (RACGP) Dr Deborah Wiens is a Fellow of the RACGP and sits on the GEAC as its representative. She has a Masters in Mental Health Therapies from the University of Queensland and undertook this study during her 3 years training in psychiatry. She subsequently spent 3 years in addiction medicine and was granted Fellowship in the new Chapter of Addiction Medicine in 1994. She continues to work part-time for the Mater Children's Hospital in the Child and Youth Mental Health Service with a special interest in maternal and infant mental health.

beyondblue

Ms Christine Benger, Senior Program Manager, National Guidelines Development

Ms Rita Butera, Director, Research & Planning (until 21 August 2009)

Ms Suzanne Pope, Director, Research & Planning (from 19 November 2009)

Ms Rachel Komen, Secretariat

NHMRC Project Management Team

Vesna Cvjeticanin, Director, Evidence Translation Section

Cheryl Annette Cooke, Assistant Director, Evidence Translation Section

Contractors

HT Analysts

Dr Suzanne Campbell

Dr Lisa Elliott

Dr Sarah Norris

Ampersand Health Science Writing

Ms Elizabeth Hall

Ms Jenny Ramson

Previous members

beyondblue
Ms Carol Bennett
September 2008 – December 2008

Australian Association of Maternal and Child Family Health Nurses
Ms Allison Slykerman
September 2008 – October 2009

Australian College of Midwives
Dr Jenny Gamble
September 2008 – June 2009

Australian Indigenous Doctors' Association
Dr Donna Bacon
May 2009 – August 2009

Australian General Practice Network
Dr Chris McAuliffe
Proxy representative
August 2009 – September 2009

Ms Joy Thomas
July 2009 – May 2010

Ms Jane Westley
May 2009 – July 2009

Terms of reference

1. To evaluate the evidence regarding prevention, assessment and management options for mental health conditions in the perinatal period, in order to develop clinical practice guidelines relevant and/or applicable to the agreed range of perinatal mental health conditions. This should take into account, but not be limited to, the following:
   - existing Australian and international guidelines relating to perinatal mental health;
   - the best available current scientific evidence[5];
   - current good practice;
   - comments provided by the broader community through public consultation;
   - system and health professional issues;
   - the needs of consumers and carers; and
   - any other relevant matter.
2. To provide expert advice and develop recommendations for the *National Clinical Practice Guidelines for Perinatal Mental Health,* in accordance with the NHMRC criteria as outlined in *A Guide to the Development, Implementation and Evaluation of Clinical Practice Guidelines*, in consultation with the appointed Guidelines Assessment Register (GAR) consultant.
3. To assist in developing a comprehensive consultation strategy.
4. To assist in developing strategies for the dissemination, implementation and evaluation of the guidelines.
5. To submit the final guidelines for health professionals and gain approval by the CEO of the NHMRC under S.14A of the *NHMRC Act 1992*.

5 For the purpose of these Guidelines, the scope will include: depressive disorders, anxiety disorders, bipolar disorder and puerperal psychosis.

2 Overview of the guideline development process

beyondblue has developed these Clinical Practice Guidelines (the Guidelines) with the aim of providing evidence-based guidance for the detection, treatment and management of depression and the related disorders of anxiety, bipolar disorder and puerperal psychosis for expectant and new mothers. For the purpose of these Guidelines, the perinatal period is defined as pregnancy and the following year.

Guidelines Expert Advisory Committee

The development of the Guidelines has been managed by a Guidelines Expert Advisory Committee (GEAC), which was established in 2008. Membership includes consumers, carers and representatives from perinatal health professions including general practice, maternal and child health nursing, midwifery, rural/remote and Aboriginal and Torres Strait Islander health, psychiatry, obstetrics and psychology (see Appendix 1).

Managing conflict of interest

All members were asked to complete declaration of interest forms prior to acceptance onto the GEAC, and requested to advise *beyondblue* and the Chair of the GEAC of any competing interests if these arose during the development of the Guidelines; for example, being offered an honorarium to present at a pharmaceutical company event or support (financial or in-kind) to attend conferences, workshops or the like. A review of potential conflicts of interest was undertaken at every committee meeting.

In the case of a member being an author of a paper under discussion, where it could be seen to present a competing interest, particularly in the development of either a recommendation or a good practice point, members were asked to temporarily leave the meeting. This was to avoid the potential for influencing any decision made and was duly recorded in the minutes of the meeting.

The conflict of interest system management process was robust, transparent and referred to frequently. Apart from the issue of authorship, two conflict of interest issues were identified and discussed:

- Several members of the GEAC disclosed that they had received honoraria and/or funding for research or attendance at conferences from pharmaceutical companies. As no specific pharmaceuticals are being recommended in the Guidelines, the Chair did not consider that such relationships constituted conflicts of interest for the relevant GEAC members.
- One member of the GEAC advised that, prior to being a member of the GEAC, they had served on two separate pharmaceutical company advisory boards. As the relevant member was not a member of any pharmaceutical company advisory board at the same time as being a member of the GEAC, the Chair did not consider that there was any conflict of interest.

Process

The development of the Guidelines has followed the key principles and processes outlined in the document *NHMRC Standards and Procedures for Externally Developed Guidelines* (www.nhmrc.gov.au/_files_nhmrc/file/publications/synopses/nh56.pdf).

The formulation of levels of evidence and grades for recommendations followed the document *NHMRC Additional Levels of Evidence and Grades for Recommendations for Developers of Guidelines*. These are consistent with current NHMRC levels and grades (NHMRC 2009). Consensus by the GEAC on the grading of the systematic literature review (SLR) evidence was achieved for all items and recorded in detailed summary sheets used to form the basis of the GEAC's decisions about what recommendations were appropriate to develop, and the subsequent grading of these recommendations. Where a GEAC member was an author on a paper being assessed, they absented themselves from that GEAC discussion to avoid any potential conflict of interest. Detailed summary sheets documenting these processes were submitted to the NHMRC.

Good practice points (GPPs) were developed to cover areas that had been addressed in the SLR but where insufficient evidence to support a recommendation was identified, as well as areas that were beyond the scope of the SLR but where practical advice is needed. The formulation of GPPs involved a process of:

- identifying areas where advice was required (e.g. raised by other guidelines, GEAC members or through the consultation process);
- reviewing any evidence identified through the SLR;
- drafting of a GPP by members with expertise specific to the area; and
- refinement of the GPP by the whole GEAC over several iterations until consensus was reached.

This process resulted in a range of types of GPP:

- those informed by the literature review (GPPs 3, 5, 7, 8, 9, 11, 18, 21);
- those informed by an additional search on harms from pharmacological interventions undertaken as insufficient information was available on this from the original search (GPPs 30, 36, 38, 39, 42, 43);
- those where no specific search was conducted or no evidence was identified but the GEAC determined that GPPs were needed as adjuncts/corollaries of recommendations and/or other GPPs (GPPs 2, 12, 13, 14, 15, 16, 19, 20, 23, 31, 32, 33, 34, 35, 37, 40, 41, 44); and
- those concerned with principles of care (GPPs 1, 4, 6, 10, 17, 22, 24, 25, 26, 27, 28, 29).

Throughout this process the GEAC was guided by a Guidelines Assessment Register (GAR) consultant. Ms Philippa Middleton was appointed by the NHMRC as the GAR consultant from September 2008 until June 2010, and joined the GEAC as a member from July 2010. Ms Middleton is a perinatal epidemiologist and Co-Director of the Australian Research Centre for Health of Women and Babies (ARCH) at the University of Adelaide. She has an extensive background in evidence-based health care, including preparation of systematic reviews, development of clinical practice guidelines and translation of research into practice.

Systematic literature review

The development of the Guidelines was informed by a systematic literature review as discussed in Appendix 3.

Pharmacological Benefits and Harms Workshop — 16 November 2009

There is limited high-quality evidence surrounding the potential harms that may occur with respect to clinical pharmacological treatment for depression, anxiety and bipolar disorder in the perinatal period and puerperal psychosis.

As the GEAC considered it was most important to discuss the balance of benefits versus potential adverse effects related to pharmacological treatment, a 'Pharmacological Benefits and Harms Workshop' was held as part of the development of the draft Guidelines.

Key experts who attended the Workshop were:

- Prof Philip Boyce, Department of Psychiatry, Westmead Hospital (advised on this topic over November – December 2009)
- Prof John Condon, Department of Psychiatry, Repatriation General Hospital (advised on this topic over November – December 2009)
- Dr Debora Kennedy, Director, Mothersafe (advised on this topic over November – December 2009)
- Dr Jonanthan Rampono, Chair Psychological Medicine, King Edward Memorial Hospital (via teleconference) (GEAC member from November 2009)

The outcomes of this workshop were incorporated into the Guidelines.

Public consultation

The draft guidelines were released for a 60-day public consultation, as required in the *NHMRC Act*, 1992 (as amended), so that the final guidelines could be submitted for approval by the CEO of the NHMRC, under Item 14A *Approval by CEO of guidelines for third parties,* under the Act.

Although the minimum requirement for the public consultation is 30 days, *beyondblue* wished to provide stakeholders and the public with plenty of opportunity to make comments on and suggestions for the draft guidelines, and so a 60-day consultation period was undertaken.

The draft guidelines underwent a rigorous consultation process during which time:

- interested stakeholders, individuals and organisations were invited to submit written comments; and
- a series of national workshops for consumers and carers and for health professionals, was held in capital cities and/or regional centres in each State and Territory.

The public consultation began by way of an advertisement in *The Weekend Australian* of 13 March 2010 and formally ended on 12 May 2010.

Summary of issues raised through the consultation process

The general response to the draft guidelines in submissions and at workshops was positive. Other comments relating to the approach of the guidelines included the framing of the document around a symptom-based disease framework rather than providing an understanding of the multifactorial aetiology and disease processes involved. Some submissions raised concerns with aspects of the review of the evidence and with use of terminology in the Guidelines. Points for consideration in implementation, including the need for training of health professionals, were also provided.

Many submissions raised the following issues as areas for revision or expansion in the Guidelines:

- the focus of the Guidelines on the woman rather than being more inclusive of the infant and family, including involvement, support and treatment of the woman's significant other(s), mother–infant attachment and assessment of infant wellbeing;
- the need for greater consideration of the woman's context more broadly rather than focusing on specific psychosocial factors and symptoms;
- the process of psychosocial assessment as outlined in the draft Guidelines, in particular the need to prioritise the psychosocial factor questions and review evidence on antenatal use of the EPDS;
- psychological therapies, in particular referencing, definition of IPT and recommendations on psychodynamic therapy and non-directive counselling; and
- a need for more information and guidance on assessing for anxiety and puerperal psychosis.

Three meetings of the GEAC were held in the months following consultation and all submissions were reviewed. Considerable redrafting was undertaken to address submission concerns outlined above.

The final Guidelines were submitted to the Council of the NHMRC in late 2010.

Financial support

beyondblue acknowledges the financial support received for the development of these Guidelines from the Australian Department of Health and Ageing under the National Perinatal Depression Initiative (NPDI), which was supported by the Australian Health Ministers' Advisory Council and introduced by the Australian Government in 2008. The NPDI is funded by the Australian ($55 million) and State and Territory governments ($30 million). Under this Initiative, a National Perinatal Depression Framework (2008–09 to 2012–13) was endorsed by the Australian Health Ministers' Conference (AHMC) in November 2009.

The Guidelines are one component of the NPDI. The NPDI aims to improve prevention and early detection of depression in the perinatal period and provide better support and treatment for expectant and new mothers experiencing depression.

beyondblue also acknowledges the support of the NHMRC, which provided and funded a GAR consultant to support and guide the development of the Guidelines from their inception up until 30 June 2010.

Implementation

Significant progress is already underway to support the implementation of these Guidelines through the development, support and implementation of the NPDI (www.mentalhealth.gov.au).

Further implementation of the Guidelines will be supported by the other key elements namely:

- routine assessment for risk factors for or possible depression and related disorders in the perinatal period;
- follow-up support and care for women assessed as being at risk of or experiencing depression and related disorders in the perinatal period;
- workforce development and training for health professionals;
- research and data collection; and
- increasing community awareness of perinatal depression.

Progress on each of these elements of the National Perinatal Initiative is facilitated through the development and working of several national, State and Territory working committees. These committees provide an opportunity to collaborate, share information and progress the elements of the NPDI. Continued consultation with key stakeholders, including consumers, carers and health professionals across all perinatal disciplines will be instrumental in the national dissemination of these Guidelines.

Cost implications of Guideline recommendations

The prevalence of depression in the postnatal period and the high rate of relapse for bipolar disorder during the postpartum period (see Introduction, page xiv) highlight the importance of identifying women who are experiencing psychosocial factors that increase the likelihood of mental health disorders or symptoms of disorder. The potential costs implicit in identifying women who require additional mental health care in the perinatal period are balanced against the costs of care for these women if early intervention is not provided.

The majority of women who experience depression in the postnatal period receive professional help solely through primary health care services in community settings (NICE 2007). A UK report on epidemiology, referral and admission rates found that 2% of women in the postpartum period were referred to psychiatric services and 4 per 1,000 were admitted to a psychiatric unit during the first postnatal year (Oates 2000).

Psychosocial assessment and use of the EPDS have been incorporated as a component of routine primary health care in NSW for some years. The SAFE START model as articulated in NSW Health's *Families NSW Supporting Families Early* Package (NSW Department of Health 2009) ensures that every woman within the NSW public health system who is expecting or caring for a baby is assessed for possible depression and receives at least two psychosocial assessments during the perinatal period. Referrals to specialist mental health services from perinatal psychosocial assessment and depression screening in NSW have been very similar to reports from the UK; that is, between 1% and 3% of women screened in the perinatal period are referred to specialist mental health services (Oates 2000). This rate of referral to specialist mental health services has remained fairly steady since implementation of perinatal psychosocial assessment and depression screening in NSW and has been accommodated without undue burden on the mental health system. The primary health care sector (GPs, maternal and child and family care services) has been able to respond to the less severe mental health conditions.

3 Summary of the systematic literature review

This appendix provides a summary of the systematic literature review (SLR) conducted to inform the development of these Guidelines. It includes a brief discussion of the methodology employed and the research questions used and maps evidence summaries against recommendations. The full report of the literature review is available from the *beyondblue* website.

Research questions

Research questions were developed by the literature reviewers in consultation with the Guidelines Expert Advisory Committee (GEAC).

ID	Research question
	Psychosocial assessment tools
Q1	Q1a: How effective are key depression psychosocial assessment tools? Q1b: As above, but for anxiety disorder Q1c: As above, but for puerperal psychosis Q1d: As above, but for bipolar disorder
Q2	Q2a: Have key depression psychosocial assessment tools been validated in culturally diverse populations? Q2b: As above, but for anxiety disorder Q2c: As above, but for puerperal psychosis Q2d: As above, but for bipolar disorder
Q3	Q3a: Is there evidence that use of key psychosocial assessment tools improves depression outcomes, taking full account of potential harm through the use of such tools? Q3b: As above, but for anxiety disorder Q3c: As above, but for puerperal psychosis Q3d: As above, but for bipolar disorder
Q4	Q4a: Do key psychosocial assessment tools improve referral outcomes for women at risk of depression? Q4b: As above, but for anxiety disorder Q4c: As above, but for puerperal psychosis Q4d: As above, but for bipolar disorder
Q5	Q5a: When and how often should key psychosocial assessment tools used to predict the development of depression, anxiety disorder, puerperal psychosis or bipolar disorder be administered in the antenatal period? Q5b: When and how often should key psychosocial assessment tools used to predict the development of depression, anxiety disorder, puerperal psychosis or bipolar disorder be administered in the postnatal period?
Q6	Q6a: Are key psychosocial assessment tools for depression, anxiety disorder, puerperal psychosis or bipolar disorder acceptable to consumers? Q6b: Are key psychosocial assessment tools for depression, anxiety disorder, puerperal psychosis or bipolar disorder acceptable to health professionals?
Q7	Q7a: What are the barriers to acceptability of key psychosocial assessment tools for depression, anxiety disorder, puerperal psychosis or bipolar disorder for consumers? Q7b: What are the barriers to acceptability of key psychosocial assessment tools for depression, anxiety disorder, puerperal psychosis or bipolar disorder for health professionals?
	Case detection tools
Q8	Q8a: How effective are key depression case detection tools? Q8b: As above, but for anxiety disorder Q8c: As above, but for puerperal psychosis Q8d: As above, but for bipolar disorder

ID	Research question (cont)
Q9	Q9a: Have key depression case detection tools been validated in culturally diverse populations? Q9b: As above, but for anxiety disorder Q9c: As above, but for puerperal psychosis Q9d: As above, but for bipolar disorder
Q10	Q10a: Is there evidence that use of key case detection tools improves depression outcomes, taking full account of potential harm through the use of such tools? Q10b: As above, but for anxiety disorder Q10c: As above, but for puerperal psychosis Q10d: As above, but for bipolar disorder
Q11	Q11a: Do key case detection tools improve referral outcomes for women with depression? Q11b: As above, but for anxiety disorder Q11c: As above, but for puerperal psychosis Q11d: As above, but for bipolar disorder
Q12	Q12a: When and how often should key tools used to detect depression, anxiety disorder, puerperal psychosis or bipolar disorder be administered in the antenatal period? Q12b: When and how often should key tools used to detect depression, anxiety disorder, puerperal psychosis or bipolar disorder be administered in the postnatal period?
Q13	Q13a: Are key case detection tools used to detect depression, anxiety disorder, puerperal psychosis or bipolar disorder acceptable to consumers? Q13b: Are key case detection tools used to detect depression, anxiety disorder, puerperal psychosis or bipolar disorder acceptable to health professionals?
Q14	Q14a: What are the barriers to acceptability of key case detection tools used to detect depression, anxiety disorder, puerperal psychosis or bipolar disorder for consumers? Q14b: What are the barriers to acceptability of key case detection tools used to detect depression, anxiety disorder, puerperal psychosis or bipolar disorder for health professionals?
	Psychosocial, psychological and pharmacological interventions in women at risk of developing mental health disorder
Q15	Q15a: For women identified as being at risk of developing depression in the antenatal or postnatal period, what are the benefits of psychosocial and psychological interventions? Q15b: As above, but for anxiety Q15c: As above, but for puerperal psychosis Q15d: As above, but for bipolar disorder
Q16	Q16a: For women identified as being at risk of developing depression in the antenatal or postnatal period, what are the benefits of combined psychosocial, psychological and pharmacological interventions? Q16b: As above, but for anxiety Q16c: As above, but for puerperal psychosis Q16d: As above, but for bipolar disorder
Q17	Q17a: For women identified as being at risk of developing depression in the antenatal or postnatal period, what are the benefits of pharmacological interventions? Q17b: As above, but for anxiety Q17c: As above, but for puerperal psychosis Q17d: As above, but for bipolar disorder

ID	Research question (cont)
	Psychosocial, psychological and pharmacological interventions in women with a mental health disorder
Q18	Q18a: For women with depression in the antenatal or postnatal period, what are the benefits of psychosocial and psychological interventions? Q18b: As above, but for anxiety Q18c: As above, but for puerperal psychosis Q18d: As above, but for bipolar disorder
Q19	Q19a: For women with depression in the antenatal or postnatal period, what are the benefits of combined psychosocial and pharmacological interventions? Q19b: As above, but for anxiety Q19c: As above, but for puerperal psychosis Q19d: As above, but for bipolar disorder
Q20	Q20a: For women with depression in the antenatal or postnatal period, what are the benefits of pharmacological interventions? Q20b: As above, but for anxiety Q20c: As above, but for puerperal psychosis Q20d: As above, but for bipolar disorder
	Community programs
Q21	Q21a: How effective are community awareness programs that aim to prevent depression at increasing the number of women or their partners/carers who seek help in the perinatal period? Q21b: As above, but for anxiety Q21c: As above, but for puerperal psychosis Q21d: As above, but for bipolar disorder
Q22	Q22a: How effective are perinatal depression programs that target primary care health professionals? Q22b: As above, but for anxiety Q22c: As above, but for puerperal psychosis Q22d: As above, but for bipolar disorder
	Barriers
Q23	Q23a: What are the barriers to psychosocial/psychological interventions for consumers/carers? Q23b: What are the barriers to psychosocial/psychological interventions for health professionals?
Q24	Q24a: What are the barriers to combined psychosocial/psychological and pharmacological interventions for consumers/carers? Q24b: What are the barriers to combined psychosocial/psychological and pharmacological interventions for health professionals?
Q25	Q25a: What are the barriers to pharmacological interventions for consumers/carers? Q25b: What are the barriers to pharmacological interventions for health professionals?
	Harms
Q26	What are the harms that occur to pregnant women, women in the first year postpartum, their fetus or breastfeeding infant as a result of a receiving or being exposed to a pharmacological intervention?

Search strategy

The following mental health disorders were selected for inclusion in this systematic literature review: depression, anxiety disorder, puerperal psychosis and bipolar disorder. In the context of this review, the term 'perinatal depression and related disorders' refers to these four conditions only.

A systematic method of literature searching and selection was employed in the preparation of this review. Searches were conducted in EMBASE, Medline, PsycInfo, CINAHL and the Cochrane Database of Systematic Reviews. Searches were not restricted by date.

Research questions related to interventions were addressed by updating the relevant clinical questions from the NICE antenatal and postnatal mental health systematic review (NICE 2007). The NICE review included literature published up until September 2006. Therefore the updated literature search was restricted to literature published in 2006 or later in order to capture all new publications.

Search terms were searched for as keywords, exploded where possible, and as free text within the title and/or abstract, in the EMBASE and Medline databases. Variations on these terms were used for the Cochrane library, PsycInfo and CINAHL searches after modifications were made to suit the keywords and descriptors of each search platform.

The reference lists of included papers were reviewed to identify any peer-reviewed evidence that may have been missed in the literature search. Contacting of authors for unpublished research was not undertaken in this review. Conference abstracts were not eligible for inclusion.

Appraisal of included studies

Dimensions of evidence

The aim of the SLR was to find the highest quality evidence to answer the clinical questions being asked. In accordance with NHMRC guidance, the following dimensions of evidence were reviewed for each of the included studies — the value of a piece of evidence is determined by all of these dimensions, not just the level of evidence.

Table A3.1 Evidence dimensions — criteria used to critically appraise each included study

Dimension	Reviewer's definition
Strength of the evidence	
Level	The levels of evidence hierarchy reflects the potential of each study or systematic review included in the systematic review(s) underpinning the Guidelines to adequately answer a particular research question, based on the probability that its design has minimised the impact of bias on the results.*
Quality	The methods used to minimise bias within an individual study (i.e. other than design *per se*).*
Statistical precision	An indication of the precision of the estimate of effect reflecting the *degree of certainty* about the existence of a true effect, as opposed to an effect due to chance.
Size of effect	Determines the magnitude of effect and whether this is of *clinical importance.*
Relevance of evidence	Considers the relevance of the study to the specific research question and the context in which the information is likely to be applied, with regard to a) the nature of the intervention, b) the nature of the population and c) the definition of the outcomes.

Note: * NHMRC Levels of Evidence and Grades of Recommendations for Developers of Guidelines (NHMRC 2009).

Each study was also assigned a level of evidence in accordance with NHMRC Levels of Evidence and Grades of Recommendations for Developers of Guidelines (NHMRC 2009). This included the designation of levels of evidence for intervention and diagnostic accuracy studies.

Even within the levels of evidence, there is considerable variability in the quality of evidence. In accordance with NHMRC Levels of Evidence and Grades of Recommendations for Developers of Guidelines (NHMRC 2009), it was necessary to consider the quality of each of the included studies. Quality assessment was based on specific criteria for each study type (systematic review, randomised controlled trial, screening articles using diagnostic criteria and other trials).

Data extraction

Abstract review and data extraction was performed in duplicate on a random sample of at least 20% of publications relevant to each clinical question.

Data synthesis

In addition to the level and quality of evidence of individual studies, the review considered the body of evidence in total. This involved consideration of the volume of evidence and its consistency.

For systematic reviews with analyses involving evidence from randomised controlled trials, a meta-analysis was performed when appropriate using the methodology of the Cochrane Collaboration. However, this was only undertaken if the trial characteristics and patient characteristics were sufficiently homogeneous in order to justify a meta-analysis. Quantitative pooling was not appropriate for other research questions or levels of evidence. Data from observational studies are subject to considerable heterogeneity and to biases that vary between studies.

The review presented the statistical precision of the estimated effect size, together with a discussion of its clinical significance. Finally, the review considered the relevance of the evidence, both with regard to the applicability of the patient population and the intervention, as well as the relevance to the Australian health care setting.

Rating of the evidence

Rating of the body of evidence involved:

- review of the evidence base, including the number of studies, level of evidence and quality of studies (risk of bias), and consistency across studies;
- examination of the effect size, the relevance of the evidence base to the research question and whether the risks and benefits had been considered in terms of clinical impact; and
- judgement by members of the GEAC of the generalisability of the body of evidence to the target population for the Guidelines and the applicability of the body of evidence to the Australian healthcare context, taking into account feasibility issues (workforce, geographical distance, cost) and existing health care systems.

The NHMRC Evidence Statement Form was used for each research question addressed. The form was used as the basis of discussion regarding the key components, which were rated according to the matrix shown in Table A3.2. Any further notes relevant to developing the recommendation were also recorded in the space provided in the form. The synthesis of the evidence relating to each component was summarised. Any dissenting opinions or other relevant issues were recorded.

Table A3.2 Components of body of evidence considered when grading each recommendation

Component	A	B	C	D
	Excellent	Good	Satisfactory	Poor
Evidence base[1]	one or more level I studies with a low risk of bias or several level II studies with a low risk of bias	one or two level II studies with a low risk of bias or a SR/several level III studies with a low risk of bias	one or two level III studies with a low risk of bias, or level I or II studies with a moderate risk of bias	level IV studies, or level I to III studies/ SRs with a high risk of bias
Consistency[2]	all studies consistent	most studies consistent and inconsistency may be explained	some inconsistency reflecting genuine uncertainty around clinical question	evidence is inconsistent
Clinical impact	very large	substantial	moderate	slight or restricted
Generalisability[3]	population/s studied in body of evidence are the same as the target population for the guideline	population/s studied in the body of evidence are similar to the target population for the guideline	population/s studied in body of evidence differ to target population for guideline but it is clinically sensible to apply this evidence to target population[3]	population/s studied in body of evidence differ to target population and hard to judge whether it is sensible to generalise to target population
Applicability	directly applicable to Australian healthcare context	applicable to Australian healthcare context with few caveats	probably applicable to Australian healthcare context with some caveats	not applicable to Australian healthcare context

Notes: SR = systematic review; several = more than two studies
1 level of evidence determined from the NHMRC evidence hierarchy
2 if there is only one study, rank this component as 'not applicable'
3 e.g. results in the general population that are clinically sensible to apply to women in the perinatal period

Source: *NHMRC Levels of Evidence and Grades of Recommendations for Developers of Guidelines* (NHMRC 2009).

Formulating and grading of recommendations

Once evidence summaries had been developed, the overall grade of the evidence/recommendation was determined, based on a summation of the rating for each individual component of the body of evidence.

NHMRC overall grades of recommendation are intended to indicate the strength of the body of evidence underpinning the recommendation. This should assist users of clinical practice guidelines to make appropriate and informed clinical judgements.

Implementing guideline recommendations

The guideline implementation strategy was considered at the time that recommendations were being formulated to identify supports required for successful guideline uptake. The questions in the 'implementation of recommendation' section of the NHMRC Evidence Statement Form were used to achieve this purpose. However, in developing recommendations, the GEAC also aimed for best standards — recommendations may be more 'aspirational' and not totally based on the actual implementability.

Limitations of the review methodology

This review used a structured approach to review the literature. However, there are some inherent limitations with this approach. All types of study are subject to bias, with systematic reviews, such as the one conducted here, being subject to the same biases seen in the original studies they include, as well as biases specifically related to the systematic review process. Reporting biases are a particular problem related to systematic reviews and include publication bias, time-lag bias, multiple publication bias, language bias and outcome reporting bias. A brief summary of the different types of reporting bias is shown in Table A3.3.

Table A3.3 Reporting biases in systematic reviews

Type of bias	Definition and effect on results of review
Publication bias	The publication or non-publication of research findings. Small, negative trials tend not to be published and this may lead to an overestimate of results of a review if only published studies are included.
Time-lag bias	The rapid or delayed publication of research findings. Studies with positive results tend to be published sooner than studies with negative findings and hence results may be overestimated until the negative studies 'catch up'.
Multiple publication bias	The multiple or singular publication of research findings. Studies with significant results tend to be published multiple times which increases the chance of duplication of the same data and may bias the results of a review.
Citation bias	The citation or non-citation of research. Citing of trials in publications is not objective so retrieving studies using this method alone may result in biased results. Unsupported studies tend to be cited often, which may also bias results.
Language bias	The publication of research findings in a particular language. Significant results are more likely to be published in English so a search limited to English-language journals may result in an overestimation of effect.
Outcome reporting bias	The selective reporting of some outcomes but not others. Outcomes with favourable findings may be reported more. For example, adverse events have been found to be reported more often in unpublished studies. This may result in more favourable results for published studies.

Some of these biases are potentially present in this review. Only data published in peer-reviewed journals are included. No attempt was made to include unpublished material, as such material typically has insufficient information upon which to base quality assessment, and it has not been subject to the scrutiny of the peer-review process. In addition, the search was limited to English-language publications only, so language bias is also a potential problem. Outcome reporting bias and inclusion criteria bias are unlikely as the reviewers had no detailed knowledge of the topic literature, and the methodology used in the review and the scope of the review was defined a priori.

The majority of studies included in this review were conducted outside Australia, and therefore, their generalisability to the Australian population and context may be limited. This review was confined to an examination of the efficacy and safety of the interventions and did not consider ethical or legal considerations associated with those interventions.

The studies were initially selected by examining the abstracts of these articles. Therefore, it is possible that some studies were inappropriately excluded prior to examination of the full text article. However, where detail was lacking, ambiguous papers were retrieved as full text to minimise this possibility. Data extraction, critical appraisal and report preparation was performed by one reviewer and double-checked by another.

The review was conducted over a limited timeframe (December 2008 – July 2009). The systematic literature review was conducted sequentially. Cut-off dates for publications included in the review are as follows — models of care: September 2008; tools: January 2009; interventions: March 2009; harms associated with pharmacological treatments: April 2009; community programs, health professional programs and barriers to interventions: July 2009.

Summaries of evidence supporting recommendations

Evidence supporting Recommendation 1

Training of health professionals (Grade C)	E	C	I	G	AP
As a minimum, all health professionals providing care in the perinatal period should receive training in woman-centred communication skills and psychosocial assessment.	C	B	C	C	C

Key: E=evidence base; C=consistency; I=clinical impact; G=generalisability; A=applicability

Evidence supporting Recommendation 2

Use of the EPDS in the antenatal period (Grade B)	E	C	I	G	AP
The EPDS should be used by health professionals as a component of the assessment of all women for symptoms of depression in the antenatal period.	B	B	A–B	B	B

Key: E=evidence base; C=consistency; I=clinical impact; G=generalisability; A=applicability

Evidence supporting Recommendation 3

Use of the EPDS in the postnatal period (Grade B)	E	C	I	G	AP
The EPDS should be used by health professionals as a component of the assessment of all women in the postnatal period for symptoms of depression or co-occurring depression and anxiety.	A	A (major) B (minor)	A–B	A	B

Key: E=evidence base; C=consistency; I=clinical impact; G=generalisability; A=applicability

Evidence supporting Recommendation 4

EPDS score in the postnatal period (Grade C)	E	C	I	G	AP
A score of 13 or more can be used for detecting symptoms of major depression in the postnatal period.	B	B–C	NA	B	B

Key: E=evidence base; C=consistency; I=clinical impact; G=generalisability; A=applicability

Evidence supporting Recommendation 5

Non-directive counselling (Grade C)	E	C	I	G	AP
Non-directive counselling in the context of home visits can be considered as part of the management of mild to moderate depression for women in the postnatal period.	A	A	C	B	A

Key: E=evidence base; C=consistency; I=clinical impact; G=generalisability; A=applicability

Evidence supporting Recommendation 6

Cognitive behavioural therapy (Grade B)	E	C	I	G	AP
Cognitive behavioural therapy (CBT) should be considered for treating women with diagnosed mild to moderate depression in the postnatal period.	B	A	B–C	C	B–C

Key: E=evidence base; C=consistency; I=clinical impact; G=generalisability; A=applicability

Evidence supporting Recommendation 7

Interpersonal psychotherapy (Grade C)	E	C	I	G	AP
Interpersonal psychotherapy (IPT) can be considered for treating women with diagnosed mild to moderate depression in the postnatal period.	B–C	NA	B	B–C	B–C

Key: E=evidence base; C=consistency; I=clinical impact; G=generalisability; AP=applicability

Evidence supporting Recommendation 8

Psychodynamic therapy (Grade D)	E	C	I	G	A
Psychodynamic therapy can be considered for treating women with diagnosed mild to moderate depression in the postnatal period.	D	NA	C	B	C

Key: E=evidence base; C=consistency; I=clinical impact; G=generalisability; A=applicability

Table A3.4 Map of recommendations and good practice points against systematic literature review research questions

This table provides a summary of the recommendations and GPPs developed against the SLR research questions. Due to the number of research questions, these have been grouped under headings — specific questions numbers are given in brackets after each main heading. For some research questions there was insufficient evidence specific to the perinatal period on which to base an evidence summary so some question numbers do not appear in this table.

Evidence summaries	Recs	GPP	Section
Psychosocial assessment for depression and related disorders in the perinatal period			
1. Tools for *psychosocial assessment* for depression and related disorders in the *perinatal period*? [Q1–Q7]			
There is currently insufficient evidence to support or dispute the use of a *specific* tool for the assessment of risk for depression and related disorders in the antenatal and postnatal periods.	—	✓	3.2.1
Detection of possible depression and related disorders in the perinatal period			
2. Tools for detection of possible depression and related disorders in the *antenatal period*? [Q8–Q14]			
Depression in the antenatal period (Q8a, Q9a, Q10a, Q11a, Q12a, Q13a, Q13b, Q14a, Q14b)			
There is evidence that the EPDS and PHQ-2 have an adequate specificity and sensitivity to detect possible depression in the antenatal period, with the EPDS having a larger area under the ROC, indicating superior performance. There is currently insufficient evidence to support or dispute the use of CES-D, DASS, K10 or PHQ-9 for detection of possible depression in the antenatal period. There is a lack of evidence that the performance of these tools is significantly different when evaluated in culturally diverse populations.	2 (B)	✓	3.3.1
Anxiety disorders in the antenatal period (Q8b, Q9b, Q10b, Q11b, Q12a, Q13a, Q13b, Q14a, Q14b)			
There is currently insufficient evidence to support use of a specific tool to detect anxiety disorders in the antenatal period.	—	✓	3.3.2
Bipolar disorder in the antenatal period (Q8d, Q9d, Q10d, Q11d, Q12a, Q13a, Q13b, Q14a, Q14b)			
There is currently insufficient evidence to support use of a specific tool to detect bipolar disorder in the antenatal period.	—	—	—

Evidence summaries (cont)	Recs	GPP	Section
3. Tools for detection of possible depression and related disorders in the *postnatal period*? [Q8–Q14]			
Depression in the postnatal period (Q8a, Q9a, Q10a, Q11a, Q12b, Q13a, Q13b, Q14a, Q14b)			
There is strong evidence that the English version of the EPDS has a high sensitivity and specificity, and consequently can be considered an appropriate tool for assessing women for possible depression in the postnatal period. There is currently insufficient evidence to support or dispute the use of CES-D, DASS, K10 or PHQ-9 for detection of possible depression in the postnatal period. Available evidence suggests that an EPDS score of at least 13 is most commonly used to identify possible major depression.	3 (B) 4 (C)	✓	3.3.2
Anxiety disorders in the postnatal period (Q8b, Q9b, Q10b, Q11b, Q12b, Q13a, Q13b, Q14a, Q14b)			
There is insufficient evidence to support the use of a tool to detect anxiety disorders in the postnatal period.	–	✓	3.3.2
Bipolar disorder in the postnatal period (Q8d, Q9d, Q10d, Q11d, Q12b, Q13a, Q13b, Q14a, Q14b)			
There is currently insufficient evidence to support use of a specific tool to detect bipolar disorder in the postnatal period.	–	–	–
Puerperal psychosis (Q8c, Q9c, Q10c, Q11c, Q12b, Q13a, Q13b, Q14a, Q14b)			
There is currently insufficient evidence to support use of a specific tool to detect puerperal psychosis.	–	✓	4.3
Prevention			
4. *Psychosocial and psychological interventions* for women identified in the perinatal period as at risk of a mental health disorder? [Q15, Q23]			
Psychoeducation (Q15a, Q15b)			
There is some evidence that appropriate psychoeducation (e.g. the *beyondblue* emotional health and wellbeing booklet) may reduce symptoms of *depression and anxiety* in women with risk factors for mental health disorders in the perinatal period.	–	✓	2.3.1
Social support (Q15a, Q15b)			
There is preliminary evidence to suggest that peer-led telephone support is effective in the prevention of *depression* in women identified as at risk postpartum. There is a lack of evidence about the impact of peer-led telephone support on the prevention of *anxiety*.	–	–	6.2.4
Debriefing after birth (Q15a, Q15b)			
There is insufficient evidence to suggest that routine postpartum debriefing has any positive effect on the prevention of *depression in the postnatal period*.	–	–	6.2.3
Physical, non-pharmacological interventions (excluding ECT)			
There is insufficient evidence about the effectiveness of physical, non-pharmacological treatments (massage, aromatherapy-massage, music therapy) for the prevention of depression and related disorders in the perinatal period.	–	–	–

Evidence summaries (cont)	Recs	GPP	Section
5. *Pharmacological interventions* for women identified as at risk of a mental health disorder in the perinatal period? [Q17]			
Antidepressants (Q17a)			
Antenatal period			
For women with *a past history* of depression, there is limited evidence to suggest that maintaining antidepressant medication rather than discontinuing antidepressant medication reduces relapse. Where a woman is asymptomatic but has a past history of depression, there is insufficient evidence to justify *recommencing* an antidepressant.	–	✓	8.2
Postnatal period			
For women with *a past history* of depression, there is insufficient evidence to suggest that commencing an antidepressant immediately following birth is beneficial.	–	✓	8.2
Treatment			
6. Psychosocial and psychological interventions for treating depression in the *perinatal* period? [Q18]			
Cognitive behavioural therapy (CBT) (Q18a)			
There is good evidence that CBT is an effective treatment option for women with mild to moderate depression in the *postnatal* period, particularly those with a formal diagnosis of depression, when compared with standard care.	6 (B)	✓	7.3.1
Interpersonal psychotherapy (IPT) (Q18a)			
There is moderate quality evidence that IPT is an effective treatment option for women with mild to moderate depression in the *postnatal* period, particularly those with a formal diagnosis of depression, when compared with standard care.	7 (C)	✓	7.3.2
Psychodynamic therapy (Q18a)			
There is moderate quality evidence that psychodynamic psychotherapy is an effective treatment option for women with mild to moderate depression in the *postnatal* period, particularly those with a formal diagnosis of depression, when compared with standard care.	8 (D)	✓	7.3.3
Non-directive counselling (Q18a)			
There is moderate quality evidence that non-directive counselling is an effective treatment option for women with mild to moderate depression in the postnatal period, particularly those with a formal diagnosis of depression, when compared with standard care.	5 (C)	–	6.2.2
Exercise (Q18a)			
There is emerging evidence to suggest that exercise may contribute positively to the treatment of mild to moderate depression in the *postnatal period.*	–	–	6.1.1
Massage or acupuncture (Q18a)			
There is currently insufficient evidence regarding the effectiveness of massage or acupuncture in the treatment of depression in the *perinatal period.*	–	–	6.1.1
7. *Combined psychosocial, psychological and pharmacological interventions* for treating depression in the *perinatal* period? [Q19]			
There is insufficient evidence to make a recommendation on the use of combined therapies in the treatment of depression and related disorders in the *perinatal period*.	–	–	8.1

Evidence summaries (cont)	Recs	GPP	Section
8. *Pharmacological interventions* for treating depression and related disorders in the *perinatal* period? [Q20, Q26]			
Depression in the antenatal period (Q20a, Q26)			
There is insufficient evidence from studies specifically in the antenatal population regarding the efficacy of antidepressant medication. Evidence concerning the impact of SSRIs on cognitive outcomes is reassuring in terms of long-term neurodevelopmental outcomes, although there have been some reports of mild delay in motor development.	–	✓	**8.3.1**
Anxiety disorders in the antenatal period (Q20b, Q26)			
There is insufficient evidence regarding the pharmacological treatment of anxiety disorders in the antenatal period.	–	✓	**8.3.2**
Anxiolytics and birth defects			
In contrast to earlier retrospective studies, more recent prospective, controlled studies have not shown an increase in oro-facial cleft defects resulting from use of benzodiazepines in pregnancy.	–	✓	**8.3.2**
Bipolar disorder in the antenatal period (Q20d, Q26)			
Mood stabilisers			
For pregnant women with bipolar disorder and stabilised on medication, there is some evidence that continuing *lithium* in pregnancy helps to reduce relapse in the postnatal period. For women who *discontinue* lithium during pregnancy, there is some evidence for recommencing lithium immediately post-delivery in order to reduce recurrence.	–	✓	**8.3.3**
There is fair quality evidence that *sodium valproate* use in early pregnancy is associated with a threefold increase in major birth defects compared with the general population.	–	✓	**8.3.3**
Antipsychotics			
The limited data that exist on the use of antipsychotics in pregnancy suggest that there is no significant increase in birth defects. There is a lack of evidence surrounding antipsychotics in relation to long-term neurodevelopment. There is very limited information on the use of first generation antipsychotics in pregnancy; however, second-generation antipsychotics have been associated with obesity in pregnancy and high or low birth weights.	–	✓	**8.3.3**
Depression in the postnatal period (Q20a, Q26)			
Antidepressants			
There is limited evidence from studies specifically in the postnatal population regarding the efficacy of SSRIs (fluoxetine, paroxetine, sertraline are the only SSRIs assessed through randomised controlled trials). There is no high level evidence regarding the efficacy of other antidepressants (SNRIs, MAOIs, TCAs) in the postnatal period.	–	✓	**8.4.1**
Anxiety disorders in the postnatal period (Q20b, Q26)			
Anxiolytics			
There is a paucity of evidence concerning the use of benzodiazepines while breastfeeding.	–	✓	**8.4.2**

Evidence summaries (cont)	Recs	GPP	Section
Bipolar disorder and puerperal psychosis in the postnatal period (Q20c, Q20d, Q26)			
Mood stabilisers			
There are a limited number of studies regarding the use of lithium in the postnatal period. There is conflicting data surrounding the safety of lithium in breastfeeding.	–	✓	8.4.3
Antipsychotics			
There is insufficient evidence from studies specifically in the postnatal population regarding the efficacy or safety of antipsychotic medication.	–	✓	8.4.3
Complementary treatments for depression and anxiety in the perinatal period (Q20)			
There is a lack of evidence for the efficacy of complementary treatments for depression and related disorders in the perinatal period.	–	–	6.1.1
9. Interventions for improving mother infant interactions? [Section 1.5[6]]			
There is emerging evidence to suggest that mother infant interventions/therapy may not only improve mother–infant interactions, but may also improve maternal depression.	–	✓	7.4
Awareness raising			
10. Community awareness programs for increasing the numbers of women or partners/carers who seek help in the *antenatal period*? [Q21]			
There is a lack of evidence relating to the effectiveness of community awareness programs for mental health disorders.	–	–	1.4.2
11. Community awareness programs for increasing the numbers of women or partners/carers who seek help in the *postnatal period*? [Q21]			
There is a lack of evidence relating to the effectiveness of community awareness programs for mental health disorders.	–	–	1.4.2
12. Programs targeting primary care health professionals and addressing depression and related disorders in the *antenatal period* [Q22]			
There is limited evidence that training programs attended by health professionals resulted in an improvement in health professional skills and/or mental health outcomes in women under their care.	1 (C)	✓	2.5.1
13. Programs targeting primary care health professionals and addressing depression and related disorders in the *postnatal period* [Q22]			
There is limited evidence that training programs attended by health professionals resulted in an improvement in health care professional skills and/or mental health outcomes in women under their care.	1 (C)	✓	2.5.1
14. Antenatal models of care for depression and related disorders [Q27]			
There is a paucity of evidence regarding models of care for depression and related disorders in the *antenatal* period.	–	–	9.1
15. Postnatal models of care for depression and related disorders [Q27]			
There is a paucity of evidence regarding models of care for depression and related disorders in the *postnatal* period.	–	–	9.1

6 Mother–infant interaction was extracted as an outcome in the NICE review and then updated as part of the intervention studies (and questions) in the SLR. The GEAC then put these as a separate group because of the importance of mother–infant interactions.

4 Psychosocial assessment: sample psychosocial questions and Edinburgh Postnatal Depression Scale

The sample psychosocial assessment form on the following two pages combines the psychosocial factor assessment with the EPDS.

The psychosocial assessment form is not intended to be a clinical tool or to be scored. It is based around the domains of enquiry that make up the psychosocial factor assessment described in Chapter 3. It is included here to assist where health professionals prefer a semi-structured approach or where women prefer a scale of responses rather than 'yes' or 'no' answers. For interpretation of the scale, any score over 2 can be taken as a 'yes' response. A high number of positive responses indicates a higher number of psychosocial factors.

Many women experience mixed emotions during pregnancy and early parenthood. But some women are more likely to experience emotional difficulties at this time, especially if they've experienced mental health problems in the past. For this reason, Australian women are being routinely asked questions about their feelings during pregnancy and soon after the birth (much as tests are done for blood sugar levels and baby health during this time).

The questions below and on the following page will not show whether you have depression or another mental health problem — they are designed to help your midwife or doctor understand whether you may benefit from some extra help during this time of change.

If you would like some help with any of the issues in the questions, please discuss this with your midwife or doctor.

Instructions: Please circle the number that most closely describes your situation or tick Yes/No as applicable. Please complete all items

1. I have had times when I feel particularly low or down for 2 weeks or more	1 2 3 4 5 not at all somewhat very much
2. I sometimes worry so much that it affects my day-to-day life	1 2 3 4 5 not at all somewhat very much
3. I have needed treatment for a mental health condition (e.g. depression, anxiety, bipolar disorder, psychosis)	☐ No ☐ Yes If yes, please tick the type(s) of treatment ☐ Talking therapy ☐ Medication
4. A member of my immediate family (grandparent, parent, brother/sister) has experienced mental health problems	☐ No ☐ Yes
5. When I was growing up I always felt cared for and protected	1 2 3 4 5 not at all somewhat very much
6. I feel safe with my current partner	1 2 3 4 5 not at all somewhat very much
7. I think that I (or my partner) may have a problem with drugs or alcohol	1 2 3 4 5 not at all somewhat very much
8. In the last 12 months I have experienced stress, change or loss (e.g. relationship problems, loss of someone close, illness, pregnancy loss or complications, financial worries, moving house)	☐ No ☐ Yes
9. When I was growing up, my mother was emotionally supportive of me	1 2 3 4 5 not at all somewhat very much
10. If I need practical support, I have someone who could help me	1 2 3 4 5 not at all somewhat very much
11. If I need emotional support, I have someone who could help me	1 2 3 4 5 not at all somewhat very much

Please turn the page

Instructions: Please answer the following questions based on how you have been feeling **over the last 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, I have been coping as well as ever ☐ No, most of the time I have coped quite well
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

5 Calculating a score on the Edinburgh Postnatal Depression Scale

The EPDS is a 10-item questionnaire. Women are asked to answer each question in terms of the past seven days. A clean copy without scores is given on the preceding page.

1. I have been able to laugh and see the funny side of things	As much as I always could (score of 0) Not quite so much now (score of 1) Definitely not so much now (score of 2) Not at all (score of 3)
2. I have looked forward with enjoyment to things	As much as I ever did (score of 0) Rather less than I used to (score of 1) Definitely less than I used to (score of 2) Hardly at all (score of 3)
3. I have blamed myself unnecessarily when things went wrong	Yes, most of the time (score of 3) Yes, some of the time (score of 2) Not very often (score of 1) No, never (score of 0)
4. I have been anxious or worried for no good reason	No, not at all (score of 0) Hardly ever (score of 1) Yes, sometimes (score of 2) Yes, very often (score of 3)
5. I have felt scared or panicky for no very good reason	Yes, quite a lot (score of 3) Yes, sometimes (score of 2) No, not much (score of 1) No, not at all (score of 0)
6. Things have been getting on top of me	Yes, most of the time I haven't been able to cope at all (score of 3) Yes, sometimes I haven't been coping as well as usual (score of 2) No, I have been coping as well as ever (score of 1) No, most of the time I have coped quite well (score of 0)
7. I have been so unhappy that I have had difficulty sleeping	Yes, most of the time (score of 3) Yes, sometimes (score of 2) Not very often (score of 1) No, not at all (score of 0)
8. I have felt sad or miserable	Yes, most of the time (score of 3) Yes, quite often (score of 2) Not very often (score of 1) No, not at all (score of 0)
9. I have been so unhappy that I have been crying	Yes, most of the time (score of 3) Yes, quite often (score of 2) Only occasionally (score of 1) No, never (score of 0)
10. The thought of harming myself has occurred to me	Yes, quite often (score of 3) Sometimes (score of 2) Hardly ever (score of 1) Never (score of 0)

6 Further resources

Clinical guidance

Depression

Lam RW, Kenne dy SH, Grigoriadis S et al (2009) Clinical guidelines for the management of major depressive disorder in adults: III. Pharmacotherapy. Canadian Network for Mood and Anxiety Treatments (CANMAT). *J Affective Disorders* 117: S26–S43.

NICE (2009) *Depression: the Treatment and Management of Depression in Adults: National Clinical Practice Guideline 90 (Full Guidance).* National Institute for Health and Clinical Excellence.

Parikh SV, Segal ZV, Grigoriadis S et al (2009) Clinical guidelines for the management of major depressive disorder in adults. II. Psychotherapy alone or in combination with antidepressant medication. Canadian Network for Mood and Anxiety Treatments (CANMAT) *J Affective Disorders* 117: S15–S25.

Patten SB, Kennedy SH, Lam RW et al (2009) Canadian Network for Mood and Anxiety Treatments (CANMAT) Clinical Guidelines for the Management of Major Depressive Disorder in Adults. I. Classification, Burden and Principles of Management. *J Affective Disorders* 117: S5–S14.

RANZCP (2004) Australian and New Zealand clinical practice guidelines for the treatment of depression. *Aust NZ J Psychiatry* 38: 389–407.

RANZCP (2009) *Position Statement 57 Mothers, Babies and Psychiatric Inpatient Treatment*. Royal Australian and New Zealand College of Psychatrists.

SIGN (2010) *Non-pharmaceutical Management of Depression in Adults: A National Clinical Guideline.* Edinburgh: Scottish Intercollegiate Guidelines Network.

Anxiety disorders

NICE (2004; amended 2007) *Anxiety: Management of Anxiety (Panic Disorder, with or without Agoraphobia, and Generalised Anxiety Disorder) in Adults in Primary, Secondary and Community Care.* National Institute for Health and Clinical Excellence.

Bipolar disorder

NICE (2006) *The Management of Bipolar Disorder in Adults, Children and Adolescents, in Primary and Secondary Care.* National Institute for Health and Clinical Excellence.

RANZCP (2004) Australian and New Zealand clinical practice guidelines for the treatment of bipolar disorder. *Aust NZ J Psychiatry* 38: 280–305.

Yatham LN, Kennedy SH, Schaffer A et al (2009) Canadian Network for Mood and Anxiety Treatments (CANMAT) and International Society for Bipolar Disorders (ISBD) collaborative update of CANMAT guidelines for the management of patients with bipolar disorder: update 2009. *Bipolar Disord* 11(3): 225–55.

Resources for health professionals

headspace Knowledge Centre

www.headspace.org.au/knowledge-centre
The headspace Knowledge Centre provides up-to-date information about treatment interventions and models of care for young people with mental health and substance use issues. It is designed for professionals who work with young people, as well as researchers and academics and members of the community who are interested in youth mental health. Resources include evidence summaries and Mythbusters.

The Black Dog Institute

www.blackdoginstitute.org.au/healthprofessionals/index.cfm
The Black Dog Institute is a not-for-profit, educational, research, clinical and community-oriented facility offering specialist expertise in depression and bipolar disorder. It offers education and training programs, resources and online learning for health professionals.

square — Suicide, QUestions, Answers and REsources

square.org.au
square is an integrated suicide prevention resource developed by General Practice SA and Relationships Australia (SA) in conjunction with the Australian and State/Territory Governments. It is part of the National Suicide Prevention Strategy and was jointly funded by the Australian Government and the Government of South Australia.

Living is for Everyone

www.livingisforeveryone.com.au
The Living Is For Everyone (LIFE) website is a suicide and self-harm prevention resource, dedicated to providing the best available evidence and resources to guide activities aimed at reducing the rate at which people take their lives in Australia. The LIFE website is designed for people across the community who are involved in suicide and self-harm prevention activities.

GP Psych Support

The GP Psych Support service provides GPs with patient management advice from psychiatrists within 24 hours. GP Psych Support provides advice in the following areas of psychiatry:

- general adult psychiatry;
- child and adolescent psychiatry;
- old age psychiatry; and
- drug and alcohol psychiatry.

www.psychsupport.com.au/default_home.asp

Free Phone: 1800 200 588. You will be asked some brief questions concerning your enquiry and a psychiatrist will call you back within 24 hours.

Free Fax: 1800 012 422. Using the faxback form provide details regarding the issue for discussion. A psychiatrist will then fax or phone you to discuss case details.

Email: www.psychsupport.com.au is a secure and password protected website. Log in and submit your questions online. For your username and password, call 1800 200 588.

Mental Health First Aid

www.mhfa.com.au
Mental Health First Aid is an example of a training course to help people identify others with mental health issues.

Support for consumers

beyondblue: the national depression initiative

Info line 1300 22 4636
www.beyondblue.org.au
www.youthbeyondblue.com
Information on depression, anxiety and related disorders, available treatments and referral only (local call)

Twice a year, Hitwise awards the 10 most popular websites across 160+ categories. *beyondblue* has won the following awards in the 'Health and Medical Organisations' industry, based on monthly average market share: No. 1 for 2004, 2007, 2008 and 2009 and No. 2 for the Jan–Jun 2010 period.

Post and Antenatal Depression Association Inc (PaNDa)

1300 726 306 (Mon – Fri 9.30am–4.30pm EST)
www.panda.org.au
Provides information for women and their families affected by antenatal and postnatal mood disorders about the causes and symptoms of these disorders, as well as types of treatments and support services available

Suicide Call Back Service

1300 659 467
Telephone support for those at risk of suicide, their carers and those bereaved by suicide

MensLine Australia

1300 78 99 78
www.menslineaus.org.au
24-hour support for men with family and relationship problems especially around family breakdown or separation – this service provides anonymous telephone support, information and referral (local call)

Black Dog Institute

www.blackdoginstitute.org.au
Information on depression (including during and after pregnancy) and bipolar disorder – specifically causes, treatments, symptoms, getting help and current research findings

Carers Australia

1800 242 636
www.carersaustralia.com.au
Family carer support and counselling in each State and Territory

Centre for Clinical Intervention

Provides resources, including workbooks, for people experiencing anxiety or depression

CRUfAD — Clinical Research Unit for Anxiety and Depression

www.crufad.org
Information and internet-based education and treatment programs for people with depression or anxiety

Good Beginnings

www.goodbeginnings.net.au
Information on parenting and details of support services for new parents

headspace

www.headspace.org.au
Information on mental health problems and stories from others, plus local services for young people

Karitane

www.karitane.com.au
Information on parenting, including a section on managing postnatal depression, and details of support services for new parents

Lifeline

13 11 14
24-hour counselling, information and referral (local call).

MoodGYM

www.moodgym.anu.edu.au
Online psychological therapy

Multicultural Mental Health Australia

(02) 9840 3333
www.mmha.org.au
Mental health information for people from culturally diverse backgrounds

Parent-Infant Research Institute (PIRI)

www.piri.org.au
An Australian research institute that aims to develop and apply treatments to improve the emotional wellbeing of parents and infants, and conduct basic research to maximise infant development

ParentLink

www.parentlink.act.gov.au/links/servicesnationally
Provides contact details for parent services in all States and Territories

Relationships Australia

1300 364 277
www.relationships.com.au
Support and counselling for relationships

SANE Australia Helpline

1800 18 7263
www.sane.org
Information about mental illness, treatments, where to go for support and help for carers

SIDS and kids

www.sidsandkids.org
Health promotion, bereavement support, advocacy and research

Tresillian

www.tresillian.net
Information on parenting and details of support services for new parents

What were we thinking?

www.whatwerewethinking.org.au
Contains information about common experiences in the early months of parenthood and some effective ways of thinking about and managing them

7 Overview of government initiatives for primary mental health care

This appendix is based on information accessed from the Department of Health and Ageing website. Refer to www.health.gov.au/internet/main/publishing.nsf/Content/mental-progs for links to further information.

Better Outcomes in Mental Health Care

Since July 2001, this program has provided support for GPs in delivering mental health care.

Access to Allied Psychological Services (ATAPS)

The Access to Allied Psychological Services (ATAPS) program enables consumers to be referred to allied health professionals for focused psychological strategies on the completion of a Mental Health Treatment Plan by a GP. Divisions of General Practice are the fundholders for this program, which is funded by the Australian Government Department of Health and Ageing. ATAPS is complementary to Better Access and enables consumers who are socioeconomically disadvantaged to access services or where Better Access services may not be available (i.e. rural and remote areas).

In 2009, Divisions received additional funding through the NPDI to specifically target women with mental health issues in the perinatal period in their ATAPS Program. From 1 July 2010, ATAPS expanded into a tiered program, with Tier 2 being introduced to more effectively target 'at risk' or 'hard to reach' groups. It also allows for more flexible referral pathways. Women in the perinatal period have been identified as a Tier 2 priority group. This means that where a woman is in need of treatment and is not readily able to access a GP in the first instance to develop a treatment plan, maternal child health nurses, midwives and obstetricians can make the referral to the program. Subsequently, the woman can be linked to a GP who can complete the treatment plan.

GP Psych Support

This program provides support for GPs via patient management advice from psychiatrists (see Appendix 6).

Better Access to Mental Health Care

This initiative provides Medicare rebates for GPs, psychiatrists and allied mental health professionals to assist consumers with diagnosed mental illness in accessing treatment for their condition.

The rebates for GPs cover comprehensive assessment leading to completion of a Mental Health Treatment Plan, as well as Medicare item numbers for reviewing the plan and for GP mental health consultations. There are also additional item numbers for GPs who have completed additional accredited training in focused psychological strategies.

Psychiatrists receive Medicare rebates specifically to assess and provide management advice to GPs for patients accessing mental health care via their GP.

Allied health professionals are eligible for Medicare rebates for a limited number of sessions per patient per year, when providing care to patients with diagnosed mental disorders, when referred by a GP with a completed Mental Health Treatment plan, or by a psychiatrist or paediatrician. There are two groups of providers in this category:

- eligible clinical psychologists (providing psychological assessment and therapy); and
- registered psychologists and appropriately trained social workers and occupational therapists (providing focused psychological strategies services).

Mental Health Nurse Incentive Program

Since 2007, there has been non-Medicare funding for community-based general practices, private psychiatrists and other appropriate organisations to engage mental health nurses to assist in providing coordinated mental health care for patients with severe mental disorders.

Mental Health Services in Rural and Remote Areas Program

Complementary to the Better Access Program, this program provides allied and nursing mental health services to communities in rural and remote areas of Australia, where access to Medicare-funded services may be reduced. Non-government organisations have been funded to provide these services in areas of identified need.

Other government-funded initiatives

In addition to the above mental health specific initiatives, there are other government-funded initiatives relevant to the area of perinatal mental health care, as follows:

Non-directive pregnancy support counselling

Non-directive pregnancy support counselling Medicare items became available on 1 November 2006 to assist women who are concerned about a pregnancy. The Medicare-funded services are available from eligible GPs (including a GP, but not including a specialist or consultant physician), and from psychologists, social workers and mental health nurses, on referral from a GP.

Health professionals providing these services under Medicare must have completed the mandatory training in non-directive pregnancy support counselling. The criteria for the training, defined by the government for all professional groups eligible to offer this service, covers non-directive counselling techniques, knowledge and skills in the areas of pregnancy-related concerns, and pregnancy-related information on all options and services available through government and non-government agencies. The training is a web-based module that takes approximately 3 hours to complete.

Pregnancy, Birth and Baby Helpline

This 24-hour, 7-days-a-week, Australia-wide helpline provides telephone support to women, their partners and families regarding issues arising related to pregnancy and the first 12 months of a baby's life. Information, support and counselling are available to callers regarding general antenatal and postnatal issues, as well as help for those experiencing emotional distress. Where appropriate, referral to local providers and other relevant telephone helplines may occur. Refer to www.healthdirect.org.au/pbb for more information.

Glossary

For the purposes of these Guidelines, the following key terms are defined as outlined below.

Aboriginal and Torres Strait Islander peoples: It is recognised that there is no single Aboriginal or Torres Strait Islander culture or group, but numerous groupings, languages, kinships, and tribes, as well as ways of living. Furthermore, Aboriginal and Torres Strait Islander peoples may currently live in urban, rural or remote settings, in urbanised, traditional or other lifestyles, and frequently move between these ways of living.

Absolute risk: The observed or calculated risk (rate) of an event in a defined population over a specified period.

Anticonvulsants: Medications used in the treatment of epileptic seizures. Anticonvulsants are also used in the treatment of bipolar disorder, as many also act as mood stabilisers.

Antidepressants: Medications used to treat major depression and dysthymia. Antidepressants include selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), monoamine oxidase inhibitors (MAOIs) and tricyclic antidepressants (TCAs).

Antipsychotics: Medications most commonly, but not exclusively, used to treat psychosis. A first generation of antipsychotics, also known as typical antipsychotics, was discovered in the 1950s and are virtually not in use nowadays, having been superseded by the more recent second generation (atypical) antipsychotics. Many of these are also used as either first line or adjunctive treatment for bipolar disorder.

Anxiety disorders: A group of disorders — including panic disorder, agoraphobia, social phobia, obsessive-compulsive disorder, and post-traumatic stress disorder — that are defined by a variety of anxiety symptoms that have an impact on psychosocial and occupational function. They often exist co-morbidly with depressive disorders.

Anxioloytics: Medications, most commonly the benzodiazepines (e.g. valium), used to treat acute symptoms of anxiety.

Area under the ROC: The receiver operator curve (ROC) is a graph plot of sensitivity versus specificity, which provides a measure of how well a test performs (e.g. a screening tool such as the EPDS). The larger the area, the better the test. If the area is 1.0, there is 100% sensitivity and 100% specificity.

Assertive follow-up: Seeing women regularly, providing them with out-of-hours contact details, arranging their next appointment at the end of a session, and ensuring that the interval between appointments is based on clinical need. It assumes adequate service availability.

Baseline risk: The risk of an event without treatment, intervention or exposure (e.g. risk of becoming ill without treatment or risk of birth defects without exposure to a specific medication).

Behavioural therapy: Psychological therapy that focuses on training individuals to replace undesirable behaviours with healthier behavioural patterns.

Bipolar disorder: A condition characterised by intense and sustained mood shifts usually between episodes of depression and mania.

Care pathways: Mapping of services provided within and across sectors, with agreed streamlined entry/exit procedures, with the aim of supporting continuity of care.

Cognitive therapy: Psychological therapy based on the assumption that maladaptive behaviours and disturbed moods or emotions are the result of inappropriate or irrational thinking patterns. Cognitive therapists attempt to assist people to become aware of these thinking patterns and change them, using a process termed cognitive restructuring.

Cognitive-behavioural therapy: Psychological therapy based on the assumption that faulty thinking patterns, maladaptive behaviours and 'negative' emotions are all inter-related. Treatment focuses on changing an individual's thoughts (cognitive patterns) or maladaptive behaviours in order to change emotional states. Cognitive-behavioural therapy integrates the cognitive restructuring approach of cognitive therapy with the behavioural modification techniques of behavioural therapy.

Depression and 'Related Disorders': Related disorders — as identified for the purposes of these guidelines — include anxiety, bipolar disorder and puerperal psychosis.

Detection: Identification of a possible disorder (this is not diagnosis).

Direct maternal death: Where the death is considered to be due to a complication of the pregnancy itself (for example, haemorrhage from placenta praevia). Deaths consequent on psychiatric disease were categorised as indirect, except for puerperal psychosis, until the 2009 WHO report advocating that suicide in pregnancy, puerperal psychosis and postnatal depression all be categorised as 'direct'.

Genogram: A diagram that depicts the history and relationships of a family. It contains information on births, marriages, divorces and even issues such as strained relationships.

Good practice point: For the purposes of these Guidelines, these are points of advice that are based on lower quality evidence than is required for recommendations, and/or best practice clinical judgement.

Indirect cause of maternal death: Where the death is considered to be due to a pre-existing condition aggravated by the physiological or pathological changes of pregnancy (for example, deterioration in pre-existing heart disease or diabetes).

Interpersonal deficits: These include dysfunctional communication patterns and social isolation. These often occur when a patient reports a history of inadequate or unsupportive interpersonal relationships. Interpersonal deficits tend to be associated with experiences of a sense of inadequacy, lack of self-assertion, and guilt about expressing anger.

Interpersonal psychotherapy: A short-term supportive psychotherapy that focuses on the connection between interactions between people and the development of psychological disorder symptoms.

Interpersonal role disputes: These include situations where a patient and her partner, or another significant person in her life, have differing expectations of their relationship. Treatment goals for this type of interpersonal problem include helping the patient identify the problem and plan to address the role dispute without directing the patient to any one particular resolution or attempting to preserve unworkable relationships.

Mental health (or psychiatric) disorder: Disorder fulfilling diagnostic criteria (depression, anxiety disorder, bipolar disorder, puerperal psychosis), which may be mild, moderate or severe.

Mental health symptoms: Signs of mental health problems that do not in themselves constitute a clinical diagnosis.

Mood stabilisers: Medications used to treat bipolar disorder.

Multidisciplinary: Combining health care providers from all relevant disciplines.

Negative predictive value: The probability that a person who tests negative using a test does not have the condition.

Neonatal persistent pulmonary hypertension (NPPH): A serious and life-threatening, but rare, lung condition that occurs soon after birth. Neonates with NPPH have high pressure in their lung blood vessels and are not able to get enough oxygen into their bloodstream.

Non-directive counselling: A therapeutic approach that aims to help individuals to resolve problems and to facilitate decisions based on solutions that are appropriate for them at that time. The approach is not value-laden, biased or directive, but rather aims to allow the individual to share his or her perspectives, values and current life circumstances.

Non-psychotic disorder: A mental health disorder (e.g. depressive or anxiety disorder) without psychotic symptoms.

Patient-focused communication skills: These involve techniques and attitudes that indicate respect for the patient, a willingness to listen to the patient's perspectives, values and current life circumstances around perinatal concerns, and does not direct the patient into any particular course of action. Patient-centred communication skills can include giving appropriate information, but always includes communication that views the patient as a capable and responsible person, and creates a respectful, supportive and effective alliance between the patient and practitioner.

Perinatal period: The period covering pregnancy and the following year.

Period prevalence: The prevalence of a given disease or condition over a specific period of time (e.g. annually).

Personality dysfunction: Longstanding maladaptive behaviours and coping styles associated with difficulties in the areas of occupational and social function and the ability to use health services effectively.

Puerperal: Refers to the early postnatal period, usually around the first month after birth.

Puerperal psychosis: Acute psychotic episode arising in the early postnatal period.

Point prevalence: The prevalence of a given disease or condition at a specific point in time (e.g. 1 January 2010)

Positive predictive value: The probability that a person who tests positive using a test has the condition.

Postnatal depression: This term is *not* used in these Guidelines as it is often used inappropriately as a general term for any mental health disorder in the perinatal period. In these Guidelines reference is made to the specific period in which the disorder occurs.

Primary care health professional: For the purposes of this Guideline, refers to a health professional without formal mental health qualifications (e.g. GP, midwife, maternal and child health nurse).

Psychodynamic therapy: A long-term method of psychological therapy involving in-depth exploration of past family relationships, as they were perceived during an individual's infancy, childhood and adolescence. The approach assumes dysfunctional or unwanted behaviour is caused by unconscious, internal conflicts and focuses on gaining insight into these and developing strategies for change.

Psychoeducation: Discussion of emotional health and wellbeing with families, reinforced by provision of relevant and culturally sensitive information, with the goal of assisting them to understand and be better able to participate in promoting their own psychosocial health.

Psychopathology: Symptoms of mental health (psychiatric) disorder.

Psychosis and psychotic episode/disorder: An acute mental health episode defined by abnormality of thinking, perception and behaviour in which the patient loses touch with reality and lacks insight into being ill.

Psychosocial: In these guidelines, refers to the various psychological and social factors that may have an impact on health and wellbeing in the perinatal period.

Psychotherapy: A general term for a process of treating mental and emotional disorders through an intentional interpersonal relationship used by trained psychotherapists to aid the person in overcoming the problems of living.

Relative risk: The ratio of the risk (rate) of an outcome in an exposed group (e.g. to a specific medication) to the risk (rate) of the outcome in an unexposed group in a specified time period.

Role transition: Involves a change in the requirements, expectations and responsibilities of a particular role. It requires an internal change in the way the individual thinks about or views the new role.

Routine psychosocial assessment: Broad clinical evaluation of medical, psychological and social history and current status, including risk and protective factors. In these Guidelines, this comprises psychosocial assessment based on questioning the woman about a range of psychosocial domains, and assessing the woman for possible symptoms of depression using the Edinburgh Postnatal Depression Scale, with the aim of identifying women who may benefit from follow-up care. This approach does not meet the epidemiological definition of 'screening' (it does not aim to assess prevalence) or of 'case detection' or 'case finding' (it is not intended as diagnostic). Rather, it aims to identify the presence of factors that are known to be associated with an elevated chance of mental health difficulties in the perinatal period and to detect possible symptoms.

Sensitivity: The proportion of people with the condition who have a positive test result.

Significant other(s): Individuals who are significant to the woman and considered by the woman to be important to her care. This may include her partner or members of her immediate or extended family. In some cases, the father of the infant may be estranged from the mother but remain significant to the infant.

Sociocultural: Relating to both social and cultural factors.

Somatic: Mental health symptoms focusing on the patient's combined social (e.g. economic) and cultural (e.g. ethnic, religious) factors.

Specificity: The proportion of people without the condition who have a negative test result.

Abbreviations and acronyms

ABS	Australian Bureau of Statistics
AGPN	Australian General Practice Network
AHMAC	Australian Health Ministers' Advisory Council
AHMC	Australian Health Ministers' Conference
AIHW	Australian Institute of Health and Welfare
ALPHA	Antenatal Psychosocial Health Assessment
APQ	Antenatal Psychosocial Questionnaire
ARCH	Australian Research Centre for Health of Women and Babies
ATAPS	Access to Allied Psychological Services
AWHN	Australian Women's Health Network
CAMs	complementary and alternative medicines
CBT	cognitive behavioural therapy
CES-D	Centre for Epidemiological Studies Depression Scale
DASS	Depression, Anxiety and Stress Scale
ECT	electroconvulsive therapy
EPDS	Edinburgh Postnatal Depression Scale
GAR	Guidelines Assessment Register
GEAC	Guidelines Expert Advisory Committee
GP	general practitioner
GPP	Good practice point
ICP	integrated care pathway
IPT	interpersonal psychotherapy
K10	Kessler Psychological Distress Scale
MAOIs	monoamine oxidase inhibitors
NAP	*National Action Plan for Perinatal Mental Health*
NHMRC	National Health and Medical Research Council
NICE	National Institute for Health and Clinical Excellence (UK)
NPDI	National Perinatal Depression Initiative
NPPH	neonatal persistent pulmonary hypertension
PDSS	Postnatal Depression Screening Scale
PHQ	Patient Health Questionnaire
PIRI	Parent Infant Research Institute
PNDSA	Post Natal Depression Support Association
PPV	positive predictive value
PRQ	Pregnancy Risk Questionnaire
RACGP	Royal Australian College of General Practitioners
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RANZCP	Royal Australian and New Zealand College of Psychiatrists
ROC	receiver operator curve
SIGN	Scottish Intercollegiate Guidelines Network
SLR	systematic literature review
SNRI	serotonin-norepinephrine reuptake inhibitor
SSRI	selective serotonin reuptake inhibitor
TCA	tricyclic antidepressants
TGA	Therapeutic Goods Administration
WHO	World Health Organization

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Info line 1300 22 4636 or infoline@beyondblue.org.au
www.beyondblue.org.au

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