



Mental Health Care in the Perinatal Period

Australian Clinical
Practice Guideline

October 2017



Centre of
Perinatal Excellence
cope.org.au

The Centre of Perinatal Excellence (COPE) is an independent, not-for-profit organisation. Since COPE's establishment in June 2013, it has been the policy of the COPE Board not to accept funding from, nor partner with pharmaceutical companies. None of COPE's activities are funded by pharmaceutical companies. This allows COPE to retain independence and impartiality and promote evidence-based approaches to perinatal mental health.

Copyright statement

This work is copyright. You may download, display, print and reproduce this material (in whole or in part) in unaltered form only (retaining this notice) for your personal use or internal use within your organisation, but only if you or the organisation do not use the reproduction for any commercial purpose and retain this notice as part of that reproduction. Apart from any use as permitted under the Copyright Act 1968 and this notice, all other rights are expressly reserved.

Inquiries

Requests and inquiries concerning reproduction and rights should be sent to Communications Branch, Department of Health, GPO Box 9848, Canberra ACT 2601 or copyright@health.gov.au

Disclaimer

This is a general guide to appropriate practice, to be followed subject to the relevant clinician's judgement in each individual case. COPE has taken all reasonable steps to ensure that the Guidelines is based on, and accurately represent, the best available published evidence on key areas of antenatal care.

However, COPE does not accept any legal liability for any loss, damage, costs or expenses that may result from reliance on the information and recommendations contained in this Guideline.

Systematic literature review

The systematic literature review that provides the evidence base for this Guideline was conducted by Hereco.

Technical writing

Ampersand Health Science Writing was responsible for drafting and editing the Guideline in consultation with the EWG.

Expiry of the Guideline

This Guideline was submitted to the National Health and Medical Research Council (NHMRC) in August 2017 and approved in October 2017. Approval for the Guideline by the NHMRC is granted for a period not exceeding 5 years, at which date the approval expires. The NHMRC expects that all guidelines will be reviewed no less than once every 5 years. Readers should check with COPE for any reviews or updates of this Guideline.

Suggested citation

Austin M-P, Hight N and the Expert Working Group (2017) *Mental Health Care in the Perinatal Period: Australian Clinical Practice Guideline*. Melbourne: Centre of Perinatal Excellence.

Funding

COPE acknowledges the funding provided by the Australian Government Department of Health for the development of this guideline.

Publication approval



Australian Government

National Health and Medical Research Council

The guideline recommendations on pages 7-12 of this document were approved by the Chief Executive Officer of the National Health and Medical Research Council (NHMRC) on 17 October 2017 under section 14A of the *National Health and Medical Research Council Act 1992*. In approving the guideline recommendations, NHMRC considers that they meet the NHMRC standard for clinical practice guidelines. This approval is valid for a period of five years.

NHMRC is satisfied that the guideline recommendations are systematically derived, based on the identification and synthesis of the best available scientific evidence, and developed for health professionals practising in an Australian health care setting.

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

© 2017 Commonwealth of Australia as represented by the Department of Health

Foreword

The Centre of Perinatal Excellence (COPE) and the Expert Working Group are pleased to issue *Mental Health Care in the Perinatal Period: Australian Clinical Practice Guideline*. The purpose of the Guideline is to support health professionals in providing evidence-based care. While the focus of the Guideline is on women, the effects of maternal mental health on infants and families and the emerging evidence on paternal perinatal mental health are acknowledged.

The Guideline is relevant to the care of all women in the perinatal period. In addition to screening and psychosocial assessment, the Guideline provides guidance on care for women with depressive and anxiety disorders, severe mental illnesses (schizophrenia, bipolar disorder and postpartum psychosis) and borderline personality disorder at this time.

The Guideline includes discussion of:

- supporting emotional health and wellbeing of women
- screening for symptoms of depression and anxiety and assessment for psychosocial factors that affect mental health
- assessing mother-infant interaction and the safety of the woman and infant
- referral and care pathways for women who require further assessment or care
- care planning for women with diagnosed mental health conditions
- psychological approaches to prevention and treatment of depressive and anxiety disorders
- prescribing in pregnant and breastfeeding women, in terms of potential risks (harm to fetus/infant) and benefits
- potential areas for future development to support the sustainable and measurable implementation of best practice.

The Guideline does not cover:

- the diagnosis or specifics of managing mental health conditions in the perinatal period
- routine assessment of specific social and lifestyle factors that affect perinatal outcomes and may also be associated with mental health.

It is hoped that the implementation of the recommendations in this Guideline will:

- increase rates of screening for depressive and anxiety disorders and reduce the severity of disorders (through early identification) and hence the need for specialist care
- lead to consistent approaches to assessment of psychosocial risk
- support the development of clear referral pathways for health professionals to refer women to suitably qualified health professionals and/or online treatments for the provision of timely recommended psychological treatments
- support a safe and balanced use of pharmacological treatments in the perinatal period.

Summary resources and companion documents for women and their families, and for specific groups of health professionals, will be developed from the Guideline.

As the organisation overseeing the development of the Guideline, COPE will monitor the uptake of the Guideline to assess its contribution to changes in practice and potentially to health outcomes.



Professor Marie-Paule Austin
Chair, Expert Working Group



Dr Nicole Highet
Co-Chair, Expert Working Group

Contents

Foreword	3
Summary	6
Summary of recommendations and practice points	7
Introduction	13
PART A – BACKGROUND INFORMATION	15
1 Mental health conditions in the perinatal period	16
1.1 Understanding the woman’s context	16
1.2 Prevalence and impact of maternal mental health conditions in the perinatal period	16
1.3 Perinatal mental health in men	18
2 Enabling effective mental health care in the perinatal period	20
2.1 Therapeutic relationship	20
2.2 Care provision	21
2.3 Support and information	22
2.4 Continuity of care	22
PART B – SCREENING AND PSYCHOSOCIAL ASSESSMENT	23
3 Considerations before screening and psychosocial assessment	24
4 Acceptability of screening and psychosocial assessment	25
4.1 Acceptability of screening among health professionals and women	25
4.2 Barriers to routine perinatal screening, follow-up assessment and treatment	25
4.3 Facilitators of screening and subsequent mental health care	25
5 Screening for depressive and anxiety disorders	27
5.1 Screening for depression	27
5.2 Culturally appropriate screening for depression	29
5.3 Screening for anxiety	29
6 Assessing psychosocial factors that affect mental health	31
6.1 Psychosocial assessment tools	31
6.2 Other considerations in psychosocial screening	32
7 Assessing mother-infant interaction and safety of the woman and infant	34
7.1 Mother-infant interaction	34
7.2 Risk to the infant	35
7.3 Risk of suicide	35
8 Implementing psychosocial assessment and screening	38
8.1 Incorporating psychosocial assessment and screening into routine practice	38
8.2 General approaches post-assessment	38
8.3 Referral and care pathways	38
8.4 Supporting emotional health and wellbeing	39
8.5 Women with complex presentations	40
9 Practice summary – screening and assessment	41

PART C – PREVENTION AND TREATMENT	43
10 General principles in prevention and treatment	44
10.1 Care planning	44
10.2 Use of pharmacological treatments	45
10.3 Postnatal care and support	47
11 Depressive and anxiety disorders	49
11.1 Women at risk of depressive or anxiety disorders	49
11.2 Women with mild to moderate depression or anxiety	49
11.3 Women with moderate to severe depressive or anxiety disorder	51
12 Severe mental illnesses: schizophrenia, bipolar disorder and postpartum psychosis	54
12.1 Preconception planning	54
12.2 Considerations in providing antenatal and postnatal care	54
12.3 Psychosocial and psychological treatments	54
12.4 Pharmacological therapies	55
13 Borderline personality disorder	58
13.1 Considerations in providing antenatal and postnatal care	58
13.2 Psychosocial support and psychological treatments	59
13.3 Pharmacological treatments	60
14 Electroconvulsive therapy	61
15 Practice summary – prevention and treatment	62
PART D: AREAS FOR FUTURE RESEARCH	66
APPENDICES	68
A Membership of the expert working group and subcommittees	69
Membership of the Expert Working Group	69
Membership of the Harms Expert Subcommittee	71
Membership of the Borderline Personality Disorder and Schizophrenia Subcommittee	71
Guideline development team	72
B Administrative report	73
B1 Scope and purpose	73
B2 Stakeholder involvement	78
B3 Rigour of development	79
B4 Clarity of presentation	82
B5 Applicability	82
B6 Editorial independence	84
B7 Public consultation	85
B8 Dissemination and implementation	87
C Linking evidence to recommendations	88
D Psychosocial assessment and screening	102
Edinburgh Postnatal Depression Scale	103
Antenatal Risk Questionnaire	105
Glossary	110
Abbreviations and acronyms	113
References	114

Summary

Studies in Australia and around the world have found that up to one in ten women experience depression during pregnancy and one in seven women in the year following birth. Anxiety disorders are also prevalent (around one in five women in both the antenatal and postnatal periods) and comorbidity with depression is high. Severe mental illnesses – schizophrenia, bipolar disorder and borderline personality disorder – are much less common than depression and anxiety disorders. All of these conditions have the potential to have a negative impact on maternal and infant outcomes. This is more likely to occur when a mental health condition is combined with serious or multiple adverse psychosocial circumstances.

The importance of a woman's physical and mental health should be central to every aspect of maternity care. As well as affecting a woman's emotional welfare and happiness, mental health conditions affect her experience of pregnancy and parenting, are associated with a degree of increased risk of obstetric and neonatal complications and can profoundly affect a woman's ability to bond with her baby and the infant's psychological adaptation over the longer term. Fetal exposure to an untreated maternal mental health condition can also have a negative impact on the infant's wellbeing.

Mental health conditions in the perinatal period often go undetected and untreated, imposing a great burden on women, their families, the health system and society more broadly. This Guideline therefore recommends repeated assessment of psychosocial risk and screening for symptoms of depressive and anxiety disorders for all women in the perinatal period. This approach is critical to providing women with access to early intervention if needed. While referral and care pathways vary with setting (e.g. general practice, maternity services) and location (e.g. metropolitan, rural and remote), it is important that women are provided with access to timely, appropriate services post-assessment, ongoing psychosocial support and appropriate treatments.

While women with pre-existing severe mental illness may already be under the care of a GP and/or psychiatrist, specific consideration must be given to planning their care due to the complexity of these conditions and the substantial challenges for primary care professionals involved in their management.

Care planning for a woman with a mental health condition ideally begins before conception; requires close multidisciplinary collaboration; and a particular focus on continuity of care across the different health and other government sectors.

Interventions to support women with mental health conditions in the perinatal period range from psychosocial support, through structured and systematic psychological interventions to pharmacological treatment, depending on the severity of a woman's symptoms or condition. Interventions are decided with the woman and her significant other(s)¹ based on risk-benefit analysis, which takes into account the benefit to the woman and the fetus or newborn versus the potential for harm.

The way in which different health professionals use this Guideline 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) if the woman agrees, 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 should work together to provide continuity of care for women and their families.

This Guideline provides a reliable and standard reference for health professionals providing care to women in the perinatal period. By providing a summary of the currently available evidence on effective approaches to mental health care at this time, it aims to improve a woman's experience of pregnancy and early parenthood, her emotional wellbeing, her safety and outcomes for all families.

1. In this Guideline, 'significant other(s)' includes individuals in a woman's support network and may include partner, co-parent, members of her immediate or extended family and/or close friends.

Summary of recommendations and practice points

The table below lists the recommendations and practice points included in this Guideline. This information is also provided as a separate document and is available on the COPE website.

Four types of guidance are included:

- evidence-based recommendations (EBR) – a recommendation formulated after a systematic review of the evidence, with a clear linkage from the evidence base to the recommendation using GRADE methods and graded either:
 - > ‘strong’ – implies that most/all individuals will be best served by the recommended course of action; used when confident that desirable effects clearly outweigh undesirable effects or, conversely, when confident that undesirable effects clearly outweigh desirable effects (shaded in burgundy) or
 - > ‘conditional’ – implies that not all individuals will be best served by the recommended course of action; used when desirable effects probably outweigh undesirable effects; used when undesirable effects probably outweigh desirable effects (shaded in burgundy)
- consensus-based recommendation (CBR) – a recommendation formulated in the absence of quality evidence, after a systematic review of the evidence was conducted and failed to identify sufficient admissible evidence on the clinical question (shaded in blue)
- practice point (PP) – advice on a subject that is outside the scope of the search strategy for the systematic evidence review, based on expert opinion and formulated by a consensus process (shaded in pink).

Recommendations and practice points

PART B: SCREENING AND ASSESSMENT

Training for screening and psychosocial assessment

i	CBR	All health professionals providing care in the perinatal period should receive training in woman-centred communication skills, psychosocial assessment and culturally safe care.
---	------------	--

Screening for depression

1	EBR	Use the Edinburgh Postnatal Depression Scale (EPDS) to screen women for a possible depressive disorder in the perinatal period.	Strong
2	EBR	Arrange further assessment of perinatal woman with an EPDS score of 13 or more.	Strong
ii	CBR	Complete the first antenatal screening as early as practical in pregnancy and repeat screening at least once later in pregnancy.	
iii	CBR	Complete the first postnatal screening 6–12 weeks after birth and repeat screening at least once in the first postnatal year.	
iv	CBR	For a woman with an EPDS score between 10 and 12, monitor and repeat the EPDS 2–4 weeks later as her score may increase subsequently.	
v	CBR	Repeat the EPDS at any time in pregnancy and in the first postnatal year if clinically indicated.	
vi	CBR	For a woman with a positive score on Question 10 on the EPDS undertake or arrange immediate further assessment and, if there is any disclosure of suicidal ideation, take urgent action in accordance with local protocol/policy.	
vii	CBR	When screening Aboriginal and Torres Strait Islander women, consider language and cultural appropriateness of the tool.	
viii	CBR	Use appropriately translated versions of the EPDS with culturally relevant cut-off scores. Consider language and cultural appropriateness of the tool.	

Screening for anxiety

ix	CBR	Be aware that anxiety disorder is very common in the perinatal period and should be considered in the broader clinical assessment.
x	CBR	As part of the clinical assessment, use anxiety items from screening tools (e.g. EPDS items 3, 4 and 5, Depression, Anxiety and Stress Scale (DASS) anxiety items and Kessler Psychological Distress Scale (K-10) items 2, 3, 5 and 6) and relevant items in structured psychosocial assessment tools (e.g. Antenatal Risk Questionnaire (ANRQ)).

Assessing psychosocial risk

a	PP	Assess psychosocial risk factors as early as practical in pregnancy and again after the birth.	
3	EBR	If using a tool to assess psychosocial risk, administer the ANRQ.	Strong
xi	CBR	Undertake psychosocial assessment in conjunction with a tool that screens for current symptoms of depression/anxiety (i.e. the EPDS).	
b	PP	Ensure that health professionals receive training in the importance of psychosocial assessment and use of a psychosocial assessment tool.	
c	PP	Ensure that there are clear guidelines around the use and interpretation of the psychosocial tool/interview in terms of threshold for referral for psychosocial care and/or ongoing monitoring.	
d	PP	Discuss with the woman the possible impact of psychosocial risk factors (she has endorsed) on her mental health and provide information about available assistance.	
xii	CBR	Consider language and cultural appropriateness of any tool used to assess psychosocial risk.	

Assessing mother-infant interaction

e	PP	Assess the mother-infant interaction as an integral part of postnatal care and refer to a parent-infant therapist as available and appropriate.
f	PP	Seek guidance/support from Aboriginal and Torres Strait Islander health professionals or bicultural health workers when assessing mother-infant interaction in Aboriginal and Torres Strait Islander or migrant and refugee women, to ensure that assessment is not informed by unconscious bias.
g	PP	Assess the risk of harm to the infant if significant difficulties are observed with the mother-infant interaction, the woman discloses that she is having thoughts of harming her infant and/or there is concern about the mother's mental health.

Assessing risk of suicide

h	PP	When a woman is identified as at risk of suicide (through clinical assessment and/or the EPDS), manage immediate risk, arrange for urgent mental health assessment and consider support and treatment options.
---	-----------	--

Supporting emotional health and wellbeing

i	PP	At every antenatal or postnatal visit, enquire about the woman's emotional wellbeing.
j	PP	Provide women in the perinatal period with 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.

PART C: PREVENTION AND TREATMENT

General principles in prevention and treatment

xiii	CBR	Provide all women with information about the importance of enquiring about, and attending to, any mental health problems that might arise across the perinatal period.
k	PP	If a woman agrees, provide information to and involve her significant other(s) in discussions about her emotional wellbeing and care throughout the perinatal period.
l	PP	Provide advice about the risk of relapse during pregnancy and especially in the early postpartum period to women who have a new, existing or past mental health condition and are planning a pregnancy.
m	PP	For women with schizophrenia, bipolar disorder or borderline personality disorder, a multidisciplinary team approach to care in the perinatal period is essential, with clear communication, advance care planning, a written plan, and continuity of care across different clinical settings.
n	PP	Wherever possible, assessment, care and treatment of the mother should include the baby.
o	PP	Where possible, health professionals providing care in the perinatal period should access training to improve their understanding of care for women with schizophrenia, bipolar disorder and borderline personality disorder.

General principles in the use of pharmacological treatments

p	PP	Discuss the potential risks and benefits of pharmacological treatment in each individual case with the woman and, where possible, her significant other(s).
q	PP	Ensure that women are aware of the risks of relapse associated with stopping medication and that, if a medication is ceased, this needs to be done gradually and with advice from a mental health professional.
r	PP	Discuss treatment (medication and psychological) options that would enable a woman to breastfeed if she wishes and support women who choose not to breastfeed.
s	PP	Ideally, treatment with psychoactive medications during pregnancy would involve close liaison between a treating psychiatrist or, where appropriate, the woman's GP, and her maternity care provider(s). In more complex cases, it is advisable to seek a second opinion from a perinatal psychiatrist.
t	PP	When exposure to psychoactive medications has occurred in the first trimester – especially with anticonvulsant exposures – pay particular attention to the 18–20 week ultrasound due to the increased risk of major malformation.
u	PP	Plan for pharmacological review in the early postpartum period for women who cease psychotropic medications during pregnancy.
xiv	CBR	Arrange observation of infants exposed to psychoactive medications in pregnancy for the first three days postpartum.

Postnatal care and support

v	PP	In planning postnatal care for women with schizophrenia, bipolar disorder, severe depression or borderline personality disorder, take a coordinated team approach to parent and infant mental health care and pre-arrange access to intensive maternal child health care.
w	PP	When caring for mothers with severe mental illness, including borderline personality disorder, it is important to ensure that child protection risks are understood and addressed, if necessary.
xv	CBR	If a mother with a severe postnatal episode requires hospital admission, avoid separation from her infant with co-admission to a specialist mother-baby unit where facilities are available and appropriate.

DEPRESSIVE AND ANXIETY DISORDERS

Psychosocial support and psychological approaches

4	EBR	Provide structured psychoeducation to women with symptoms of depression in the perinatal period.	Strong
5	EBR	Advise women with symptoms of depression in the postnatal period of the potential benefits of a social support group.	Conditional
6	EBR	Recommend individual structured psychological interventions (cognitive behavioural therapy or interpersonal psychotherapy) to women with mild to moderate depression in the perinatal period.	Strong
xvi	CBR	Advise women with symptoms of depression in the perinatal period of the potential benefits of facilitated self-help.	
7	EBR	Advise women with depression or anxiety disorder in the postnatal period of the possible benefits of directive counselling.	Conditional
xvii	CBR	Advise women with diagnosed post-traumatic stress disorder of the potential benefits of post-traumatic birth counselling if they are experiencing depressive symptoms.	
xviii	CBR	For women who have or are recovering from postnatal depression and are experiencing mother–infant relationship difficulties, consider provision of or referral for individual mother–infant relationship interventions.	

Complementary therapies

8	EBR	Advise women that omega-3 fatty acid supplementation does not appear to improve depression symptoms but is not harmful to the fetus or infant when taken during pregnancy or while breastfeeding.	Conditional
xix	CBR	Advise pregnant women that the evidence on potential harms to the fetus from St John's Wort is limited and uncertain and its use during pregnancy is not recommended.	
xx	CBR	Advise pregnant women that potential harms to the fetus from Gingko biloba have not been researched and its use during pregnancy is not recommended.	

Pharmacological treatments for depressive and anxiety disorders

9	EBR	Consider the use of selective serotonin reuptake inhibitors (SSRIs) as first-line treatment for moderate to severe depression and/or anxiety in pregnant women.	Conditional
x	PP	Before choosing a particular SSRI for pregnant women, consider the woman's past response to SSRI treatment, obstetric history (e.g. other risk factors for miscarriage or preterm birth) and any factors that may increase risk of adverse effects.	
10	EBR	Use SSRIs as first-line treatment for moderate to severe depression in postnatal women.	Strong
y	PP	Before prescribing SSRIs to women who are breastfeeding, consider the infant's health and gestational age at birth.	
xxi	CBR	Consider the short-term use of benzodiazepines for treating moderate to severe symptoms of anxiety while awaiting onset of action of an SSRI or tricyclic antidepressants (TCA) in pregnant or postnatal women.	
z	PP	Use caution in repeated prescription of long-acting benzodiazepines around the time of the birth.	
aa	PP	Use caution in prescribing non-benzodiazepine hypnotics (z-drugs) to pregnant women for insomnia.	
bb	PP	Doxylamine, a Category A drug in pregnancy, may be considered for use as a first-line hypnotic in pregnant women who are experiencing moderate to severe insomnia.	

Psychological intervention for women with moderate to severe anxiety and depressive disorders

xxii	CBR	Advise women with moderate to severe anxiety and depressive disorders that psychological interventions are a useful adjunct, usually once medications have become effective.
------	------------	--

SEVERE MENTAL ILLNESSES

Antipsychotics

11	EBR	Consider the use of antipsychotics for treating psychotic symptoms in pregnant women.	Conditional
xxiii	CBR	Use caution when prescribing any antipsychotic to pregnant women, particularly for women with a propensity for weight gain and metabolic syndrome	
xxiv	CBR	If women commence or continue antipsychotic treatment during pregnancy, monitor them for excessive weight gain and the development of gestational diabetes and refer them for advice on weight management as required.	
xxv	CBR	Do not initiate use of clozapine in pregnant women.	
cc	PP	Use clozapine with caution in women who are breastfeeding and monitor the infant's white blood cell count weekly for the first six months of life.	

Anticonvulsants

dd	PP	Given their teratogenicity, only consider prescribing anticonvulsants (especially valproate) to women of child-bearing age if effective contraception is in place.	
ee	PP	Once the decision to conceive is made, if the woman is on valproate wean her off this over 2–4 weeks, while adding in high-dose folic acid (5 mg/day) which should continue for the first trimester.	
12	EBR	Do not prescribe sodium valproate to women of childbearing age.	Strong
xxvi	CBR	Use great caution in prescribing anticonvulsants as mood stabilisers for pregnant women and seek specialist psychiatric consultation when doing so.	
xxvii	CBR	If anticonvulsants are prescribed to a woman who is breastfeeding, arrange close monitoring of the infant and specialist neonatologist consultation where possible.	
xxviii	CBR	If lithium is prescribed to pregnant women, ensure that maternal blood levels are closely monitored and that there is specialist psychiatric consultation.	
ff	PP	If lithium is prescribed to a pregnant woman, reduce the dose just prior to the onset of labour and aim to recommence treatment immediately after the birth at a pre-pregnancy dose.	
xxix	CBR	Where possible, avoid the use of lithium in women who are breastfeeding.	

BORDERLINE PERSONALITY DISORDER

gg	PP	For women with borderline personality disorder who have often experienced complex trauma, trauma-informed care and specific support for health professionals in dealing with challenging behaviours is a priority.
hh	PP	Advise women with borderline personality disorder who are planning a pregnancy, of the additional challenges of parenting associated with their emotional dysregulation, and the importance of ongoing support during and after pregnancy.
xxx	CBR	Where possible and appropriate, provide women with borderline personality disorder with structured psychological therapies that are specifically designed for this condition and conducted by adequately trained and supervised health professionals.
ff	PP	Encourage pregnant or postnatal women with borderline personality disorder to undertake mindfulness and/or relaxation training to assist in managing their emotional dysregulation.
xxxi	CBR	As far as possible, do not use pharmacological treatments as the primary therapy for borderline personality disorder, especially in pregnant women.

ELECTROCONVULSIVE THERAPY

xxxii	CBR	Consider electroconvulsive therapy (ECT) when a postnatal woman with severe depression has not responded to one or more trials of antidepressants of adequate dose and duration.
xxxiii	CBR	Consider ECT as first-line treatment for postnatal women with severe depression especially where there is a high risk of suicide or high level of distress; when food or fluid intake is poor; and in the presence of psychotic or melancholic symptoms.
jj	PP	In pregnant women, ECT should be only be undertaken in conjunction with close fetal monitoring (using cardiotocography to monitor fetal heart rate) and access to specialist maternal-fetal medical support.

Introduction

The perinatal period (considered here as the period from conception to the end of the first postnatal year) is a time of great change in a woman's life. For most women and their families, pregnancy, childbirth and parenting are a time of great joy and happiness. However, this period is associated with a significantly increased risk for onset and relapse of mental health conditions – higher than at many other times in a woman's life. As well, detection of mental health conditions is poor at this time, such that, in the absence of routine, standardised screening, up to three-quarters of women meeting DSM criteria for depressive and anxiety disorders are not identified (Spitzer et al 2000; Coates et al 2004) and only one in ten women requiring mental health care receives it (Bowen et al 2012).

This Guideline therefore has a primary focus on early identification of women experiencing psychosocial problems and mental health conditions in the perinatal period, so that they receive the timely support and care they need. This approach aims to improve a woman's experience of pregnancy and early parenthood, her emotional wellbeing and her safety. As suicide in the perinatal period was a leading cause of maternal deaths in Australia in 2008–2012 (Humphrey et al 2015) and the rate of maternal deaths due to psychosocial health problems is rising (Humphrey 2016), the Guideline also aims to promote the safety of women in the perinatal period.

This approach is also beneficial to the wellbeing of families. Most women who experience mental health conditions are able to parent effectively and the majority of infants are not specifically disadvantaged. However, mental health conditions in their more severe form are often associated with impaired functioning, especially in relation to a woman's ability to care for her infant and the formation of secure infant attachment, which may in turn be associated with poorer social, cognitive, and behavioural outcomes in the child (1st 1000 Days APPG 2015).

Aim and scope of the Guideline

This Guideline aims to summarise the current evidence for screening for depressive and anxiety symptoms and risk factors and preventing and treating a range of mental health conditions in the perinatal period. It builds on the foundation laid by Australia's first clinical practice guideline on mental health in the perinatal period, developed by *beyondblue* (*beyondblue* 2011) and broadens the scope to include schizophrenia and borderline personality disorder as well as depressive and anxiety disorders, bipolar disorder and postpartum psychosis. The previous Guideline played a key role in guiding best practice under Australia's National Perinatal Depression Initiative (2008–13). Since this time there have been advances in both research and innovation and it is through the development of this Guideline that best practice will be informed and supported in the Australian context, and foundations for sustainability built. It is hoped that the Guideline will also encourage further research to inform practice.

To support health professionals in providing evidence-based care, the Guideline summarises current evidence on approaches to the assessment of psychosocial risk factors (associated with or exacerbating mental health conditions) and screening for common mental health symptoms. It also covers the perinatal-specific aspects of prevention and treatment of mental health conditions.

The following are beyond the scope of the Guideline:

- diagnosis and management of mental health conditions in the perinatal period – appropriate guidelines developed for use in the general population should be used
- topics for which the evidence has been reviewed in the development of the [Pregnancy Care Guidelines](#).
 - > assessment for smoking and substance use
 - > assessment and first-line response for family violence (noting that the same process applies beyond the antenatal period)
 - > other aspects of maternity care.

While the impact of the transition to parenthood on partners/co-parents is an emerging area of research, this was considered beyond the scope of the Guideline. However, a brief summary of the evidence on perinatal mental health in men is included in Section 1.3.

Intended audience

The Guideline is intended for all health professionals involved in the care of women and families during the perinatal period. This includes but is not limited to midwives, general practitioners (GPs), obstetricians, neonatologists, paediatricians, maternal and child health nurses,² paediatric nurses, Aboriginal and Torres Strait Islander health workers, allied health professionals, mental health practitioners (psychologists, psychiatrists, mental health nurses, perinatal and infant mental health professionals), consumers and carers and those working with families in the community (e.g. social workers, child protection agencies), hospital and legal systems.

Different health professionals will use this Guideline in different ways depending on their individual knowledge, expertise and their role in the woman's care, as well as the care setting. It is anticipated that Part B on screening and assessment will be of greatest relevance to health professionals in the primary care setting, while Part C on prevention and treatment will provide guidance to health professionals involved in both primary and specialist care. Practical guidance for specific health professional groups and information for consumers and carers will be derived from this Guideline, and will be available from the COPE website.

2. Also referred to as child and family health nurses in some jurisdictions.

Development of the Guideline

The development of this Australian Guideline was undertaken by the Centre for Perinatal Excellence (COPE), with funding from the Australian Government Department of Health and developed in accordance with National Health and Medical Research Council (NHMRC) guideline development processes (see Appendix B). Drawing on the company membership of COPE, this involved convening an Expert Working Group comprising members with specific expertise in mental health care, as well as representatives of maternity care (including general practice, obstetrics, midwifery and maternal and child health), consumer and carer organisations and Aboriginal and Torres Strait Islander health care (see Appendix A). Expert subcommittees were also convened to provide specific advice on borderline personality disorder, bipolar disorder and schizophrenia and harms associated with pharmacological treatments (see Appendix A) and formal consultation with a wide range of experts, stakeholders and consumer representatives was undertaken. A systematic literature review, which identified and critically appraised the evidence, provided the basis for the Guideline (see Appendix C).

Implementation and review

As Australia's peak body in perinatal mental health, COPE will facilitate implementation of the Guideline through its membership, online channels and innovative approaches to dissemination, including training programs and summary documents for health professionals and consumers (which will be available from the COPE website). It is anticipated that the Guideline will be updated periodically to include higher-level evidence as it becomes available, ideally with a major review of the evidence within 5 years.

Structure of the Guideline

Part A: Background information is a concise review that includes discussion of an individual woman's context, the prevalence and impact of mental health conditions in the perinatal period (Chapter 1), and factors relevant to enabling effective mental health care in the perinatal period (Chapter 2).

Part B: Screening for symptoms and psychosocial assessment discusses considerations before psychosocial assessment and screening (Chapter 3), the acceptability of mental health assessment (Chapter 4), the process of screening for symptoms of depressive and anxiety disorders (Chapter 5), assessing psychosocial factors that affect mental health (Chapter 6), and of assessing mother-infant interaction and the safety of the woman and infant (Chapter 7). Considerations for implementing psychosocial assessment and screening in practice are also outlined (Chapter 8).

Part C: Prevention and treatment discusses general principles in prevention and treatment (Chapter 10), the evidence for the prevention and treatment of depressive and anxiety disorders (Chapter 11), treatment of severe mental illnesses (schizophrenia, bipolar disorder and postpartum psychosis; Chapter 12), borderline personality disorder (Chapter 13) and electroconvulsive therapy (Chapter 14).

Part D: Areas for future research Identifies current gaps in the literature and potential areas for development to support the sustainable and measurable implementation of best practice.

Appendices provide further information about the development of the Guideline, including the findings of the systematic literature review and the public consultation process and provide copies of the tools used for psychosocial assessment and screening.

Practice summaries are included in Parts B and C (Chapters 9 and 15).

Part A – Background information



1 Mental health conditions in the perinatal period

1.1 Understanding the woman's context

Every person has a right to health care that takes into consideration his or her individual social and emotional situation (UN General Assembly 1948; UN General Assembly 2007). While many Australian women experience economic security, educational attainment and good health, there are still many women living in poverty, subsisting on pensions or low-income occupations, restricted by under-employment and experiencing poor health outcomes (AWHN 2008). Gender inequalities persist, with women economically less secure, maintaining the primary carer role, and subject to violence (including physical and sexual assault, as well as emotional, psychological and financial abuse) (AWHN 2008).

The experience of pregnancy and parenthood differs for each woman and is influenced by the stability of her relationships and social network. While the biggest risk factor for developing perinatal mental health conditions is a previous mental health history, the presence of psychosocial risk factors may be associated with greater risk of onset, relapse or exacerbation of mental health conditions. Women who feel isolated either by distance, culture, or both, are more likely to develop distress or mental health conditions in the perinatal period (Austin et al 2015). The likelihood is also greater for women who have experienced life stressors (e.g. family problems, family violence or loss, disability) or multiple trauma (Austin et al 2015). Assessment for specific psychosocial risk factors is discussed in Chapter 6.

Some groups of women have greater exposure to life stressors, trauma or lack of support.

- *Aboriginal and Torres Strait Islander* respondents to the 2012–13 Health Survey indicated that, in the last year they, their family and/or friends had experienced the death of a family member or close friend (37%), serious illness (23%), mental health condition (16%) or alcohol-related problems (14%) – this is in addition to disrupted cultural wellbeing and the continuing intergenerational effects of trauma and loss (AIHW 2015). A South Australian study of Aboriginal women found that almost one in four women reported 'high' to 'very high' psychological distress (Kessler-5 ≥ 12) in the first 12 months postpartum (Weetra et al 2016).
- *Migrant women* (including refugees, asylum seekers) experience higher rates of perinatal depression than their non-migrant counterparts in the destination country, with previous depression and poor social support strongly increasing risk. Social isolation faced by migrant communities may be exacerbated by language and cultural barriers and can pose a significant hardship for new mothers (Fellmeth et al 2017). Refugee women are at heightened risk of psychological morbidity (Yelland et al 2014).
- *Women experiencing intimate partner violence* during pregnancy were four times more likely to report depressive symptoms and ten times more likely to report anxiety symptoms during pregnancy (Brown et al 2008). Two in five women reporting depressive symptoms in the first year postnatally were experiencing intimate partner violence (Woolhouse et al 2012). Among Aboriginal women, one in two women who reported violence during pregnancy reported 'high' to 'very high' psychological distress postnatally (Weetra et al 2016).
- *Lesbian, gay, bisexual, trans, and/or intersex* parents can face discrimination or have their roles, methods of conception, or abilities to parent questioned.

Many of these factors are beyond the scope of this Guideline but taking them into account (including in psychosocial assessment) is important and will lead to a fuller understanding of the individual woman's situation. Consultation with relevant organisations (e.g. local Aboriginal Health Services or Migrant Health Centres) is advisable.

1.2 Prevalence and impact of maternal mental health conditions in the perinatal period

1.2.1 Depressive and anxiety disorders

- *Depressive disorders* in the perinatal period are symptomatically the same as those at other times and range from mild to severe.
- *Anxiety disorders* at this time include generalised anxiety disorder, obsessive compulsive disorder, panic disorder, social phobia, specific phobia and post-traumatic stress disorder and are often reported as equally prevalent as depressive disorder in the perinatal period (Fairbrother et al 2016).
- Australian and other studies have reported the 4-year period prevalence³ of antenatal depression as up to one in ten women (Buist & Bilsztra 2006) and the 12-month period prevalence of postnatal depression as one in six (in the first postnatal year) (Woolhouse et al 2012).

3. Period prevalence is the prevalence over a specific time period (e.g. from a longitudinal study) and point prevalence is that at a specific point of time (e.g. from a cross-sectional study).

- Primary anxiety disorders are prevalent and their comorbidity with depression is very high (Wisner et al 2013) – for example the three-month postnatal period prevalence for any anxiety disorder was reported as one in six in one study (Fairbrother et al 2016), while another (Giardinelli et al 2012) reported a point prevalence of anxiety disorder of one in five in the third trimester of pregnancy.
- Depression may arise in pregnancy or pre-date the perinatal period. In a subset of women in a large US study of women assessed at 6 weeks postnatally, two in five episodes of depression began postnatally, one in three during pregnancy and one in four before pregnancy (Wisner et al 2013). An Australian study found that, for most mothers with postnatal depression, onset occurred after 12 weeks postpartum (Woolhouse et al 2012).
- Australian studies have reported persistence of maternal depressive symptoms beyond the first year postpartum, with more mothers reporting depressive symptoms at 4 years follow-up than in the first 12 months postpartum (Woolhouse et al 2015), symptoms persisting from pregnancy to 4 years postpartum in one in eleven women (Giallo et al 2017b) and symptoms persisting from the first year to 6–7 years postpartum in one in six women (Giallo et al 2014a).
- Depression with or without anxiety in the perinatal period is associated with maternal suicide (Humphrey et al 2015).
- Obstetric complications in depressed women (independent of antidepressant use) are slightly increased including risk of preterm birth, low birth weight, gestational hypertension and perinatal death (Grigoriadis et al 2013).
- Anxiety disorders during pregnancy may have a negative influence on obstetric, fetal and perinatal outcomes, including more pregnancy symptoms (nausea and vomiting); more medical visits; increased alcohol or tobacco consumption or unhealthy eating habits; pre-eclampsia and preterm birth; and postnatal depression and mood disorders (Marc et al 2011). High levels of maternal anxiety during pregnancy are associated with increased exposure of the fetus to maternal cortisol and risk of adverse neurodevelopmental outcomes (O'Donnell et al 2012).
- In Australia in 2012, the total disability adjusted life years (DALYs) attributable to maternal perinatal depression was 4,991 in the antenatal period and 11,584 in the postnatal period (PANDA 2012), which represents a significant disease burden and is likely an underestimate. Direct financial costs (to individuals, private health insurance and governments) associated with maternal postnatal depression were estimated as \$60.68M and indirect costs (due to lost productivity) as \$86.59M (PANDA 2012).

1.2.2 Severe mental illness

- Severe mental illness includes psychotic disorders (schizophrenia and postpartum psychosis) and bipolar disorder. These are much less common than depressive and anxiety disorders, with a prevalence of around 1 in 100 in the general population for schizophrenia and bipolar disorder (Mitchell et al 2013; Galletly et al 2016) and 1 in 1,000 pregnancies for postpartum psychosis.
- People with schizophrenia or bipolar disorder (in the general population) suffer from high rates of other mental health conditions, including depression and anxiety disorders (Merikangas et al 2011; Galletly et al 2016).
- Population studies demonstrate an increased risk of new onset psychiatric episodes, especially psychoses, in the first few months postpartum (Munk-Olsen et al 2006), while risk of relapse of pre-existing mood disorder (often following the cessation of medication in pregnancy) increases significantly across the perinatal period (Viguera et al 2000; Cohen et al 2006; Viguera et al 2007), especially for bipolar disorder (Munk-Olsen et al 2009).
- Women with bipolar disorder are more likely than women with no history of a mental health condition to experience some adverse pregnancy outcomes, including gestational hypertension, antepartum haemorrhage, severe fetal growth restriction (<2nd–3rd centile) (although this may be related to smoking) and neonatal morbidity (Rusner et al 2016).
- Women with diagnosed schizophrenia or bipolar disorder are more likely than women in the general pregnant population to have obstetric complications (pre-eclampsia, gestational diabetes) (Nguyen et al 2013). Relapse of these conditions during pregnancy is common, with 22.5% of diagnosed women in one study being admitted to a psychiatric hospital during pregnancy (38.6% with schizophrenia and 10.7% with bipolar disorder) (Nguyen et al 2013). Women with schizophrenia had a high rate of involvement of statutory child welfare services (50%).

1.2.3 Borderline personality disorder (and emotional dysregulation)

- *Borderline personality disorder* is characterised by a pervasive pattern of instability of emotions, relationships, sense of identity and poor impulse control and is consistently associated with severe functional impairment.
- Estimates of the prevalence of borderline personality disorder range from 1% among all Australian adults and 3.5% among Australians aged 24–25 years (NHMRC 2012). A more recent study (Quirk et al 2016) estimated prevalence among women aged ≥25 years to be 2.7% (95%CI: 1.4–4.0).
- *Emotional dysregulation* refers to poorly modulated emotional responses and is also referred to as mood or affective instability. It has been measured by a number of well-validated scales, including the Difficulties in Emotional Regulation Scale (Gratz & Roemer 2004). While it is associated with depressive and anxiety disorders, it is considered a core feature of borderline personality disorder (Glenn & Klonsky 2009; Kroger et al 2011).

- Emotional dysregulation and borderline personality disorder are associated with a history of childhood trauma (including sexual abuse), and/or experience of dysfunctional parenting in a substantial proportion of cases (Fossati et al 2016).
- Women with borderline personality disorder in the perinatal period experience considerable psychosocial impairment – they may anticipate birth as traumatic and frequently request early delivery, comorbidity with substance abuse is common and rates of referral to child protective services high (Blankley et al 2015).
- Women with borderline personality disorder during pregnancy have been found to be at increased risk of gestational diabetes, premature rupture of the membranes, chorioamnionitis, venous thromboembolism, caesarean section and preterm birth (Pare-Miron et al 2016).
- Mothers with borderline personality disorder are often parenting in the context of significant additional risk factors, such as depression, substance use and low support (Petfield et al 2015). Levels of parenting stress are high, and self-reported competence and satisfaction are low (Petfield et al 2015).
- Mothers with borderline personality disorder symptoms – including emotional dysregulation – are more likely than women without symptoms to engage in maladaptive interactions with their children characterised by insensitive, overprotective, and hostile parenting (Eyden et al 2016). Adverse outcomes among children included borderline personality disorder symptoms, internalising (including depression) and externalising problems, insecure attachment patterns and emotional dysregulation (Eyden et al 2016).

1.3 Perinatal mental health in men⁴

1.3.1 Psychosocial factors associated with men's perinatal mental health

Recent Australian research has identified the following psychosocial risk factors for poor mental health among men during the perinatal period:

- individual factors such as past history of mental health problems, poor physical health, limited engagement in self-care behaviour and attitudinal barriers to help-seeking for mental health problems (Giallo et al 2013; Seymour et al 2013; Giallo et al 2014b; Giallo et al 2017a)
- couple and family factors including relationship difficulties, partner mental health problems and inadequate social support (Giallo et al 2013; Seymour et al 2013)
- employment factors including limited access to flexible job conditions and parental leave, high work-family conflict and financial difficulties (Giallo et al 2013; Giallo et al 2014b; Cooklin et al 2015)
- child factors including sleep and self-regulation problems, difficult and reactive temperament (Seymour et al 2013; Cook et al 2017).

Additionally, Australian research with fathers of refugee background identified changing gender roles as a stressor for men (Riggs et al 2016).

1.3.2 The context of becoming a father

The transition to parenthood for fathers carries expectations of joy and wonder. However, the demands of the new baby and the challenge in reconfiguring relationships and identity can bring exhaustion, confusion and stress, leading fathers to experience depression and anxiety (Asenhed et al 2014).

1.3.3 Depression and anxiety among fathers

Mood disorders among fathers have not been well studied but the emerging evidence suggests that the individual and social costs of paternal perinatal depression and anxiety are significant. Reviews have identified prevalence of:

- one in ten for paternal depression between the first trimester and 1 year postpartum (Paulson & Bazemore 2010)
- one in six for anxiety during the prenatal period and up to one in five during the postnatal period, although there was wide variation between studies (Leach et al 2016).

Paternal depression may influence a fathers' parenting and therefore the wellbeing of his infant into the future. Depressed fathers in the USA, for example, were four times more likely to spank their one-year-old infants and less than half as likely to read to them as non-depressed fathers (Davis et al 2011). Studies following infants whose fathers showed signs of postnatal depression through to childhood show that these children are three times more likely to exhibit behaviour problems as a preschooler and twice as likely to receive a psychiatric diagnosis by 7 years of age (Ramchandani & Psychogiou 2009; Fletcher et al 2011). Severe mental illness among fathers has been shown to pose a risk to an infant's physical and emotional wellbeing (Fletcher et al 2013).

4. The systematic review conducted to inform the development of this Guideline was limited to maternal mental health in the perinatal period. This section was prepared by Richard Fletcher with input from Anne Sved-Williams, Catherine Rawlinson, Tracey Fay Stammbach and Virginia Schmied. More recent evidence provided through the public consultation process has been incorporated.

Fathers' mental health will impact on, and be affected by, the mental health of their partner. Among couples recruited during pregnancy, antenatal paternal depression predicted significant worsening in mothers' overall symptom severity during the first six months postnatally (Paulson et al 2016). Australian studies have found that fathers' postnatal depression is particularly affected by the couple relationship and the mother's mental health problems (Matthey et al 2000; Dudley et al 2001). Not surprisingly, when both fathers and mothers are depressed their children are at higher risk of behavioural impairment (Paulson et al 2006).

1.3.4 Screening for depression and anxiety

Several qualitative studies of fathers in the perinatal period conducted in Australia and internationally (Rowe et al 2013; Darwin et al 2017; Rominov et al 2017) have identified that fathers want to be included in perinatal health care and engaged by health professionals about their health and wellbeing.

The Edinburgh Postnatal Depression Scale has been validated for fathers with a lower cut-off of 5/6 recommended (Cox et al 1987; Matthey et al 2001). However, as fathers may express their low mood in behaviours, such as anger and irritation, that may differ from those for women, alternative scales have been introduced to some settings to better identify distress (Fletcher et al 2015). An important question in consideration of screening fathers is where screening is to take place. Fathers attending the ultrasound, antenatal preparation classes or the birth report that they have few opportunities to raise their concerns and nurses find including fathers when screening mothers a challenge (Elmir & Schmied 2016; Rollans et al 2016).

1.3.5 Treatment and support mechanisms for fathers

In recognition of male-female differences in accessing mental health services, programs using cognitive behavioural therapy, group work, and blended delivery have attempted to tailor their content and delivery to better engage men. However, few adaptations, and no programs addressing paternal mental health have been evaluated (O'Brien et al 2016). The Perinatal Anxiety and Depression Australia (PANDA) telephone counselling service accepts calls from men, either on their own behalf or in regard to their partner and approximately 7% (2,600 in 2013) of callers are male but again, no evaluation of the service for men have been published (Shafiei et al 2014).

The widespread adoption of mobile technology may present an alternative route for assessing and supporting new fathers. The provision of timely, relevant information for fathers throughout the antenatal and postnatal period can be effectively achieved through the use of technology (*beyondblue* 2016; Fletcher et al 2016). The costs of failing to assess and address paternal perinatal depression and anxiety are high. Developing effective support for new fathers will require innovative solutions to the design and delivery of information, assessment and treatment options.

2 Enabling effective mental health care in the perinatal period

The principles underlying effective provision of mental health care in the perinatal period include:

- establishing a therapeutic relationship
- providing care that is recovery-oriented and trauma-informed
- providing culturally safe support and information
- ensuring continuity of care, where possible.

2.1 Therapeutic relationship

Establishing and maintaining a therapeutic relationship between the health professional and the woman and her significant other(s) is essential to providing psychosocial care in the perinatal period. Continuity of carer is likely to improve or facilitate the therapeutic relationship. Important aspects include the development of trust, confidence, mutuality, active listening and empowerment (Simpson & Creehan 2008).

It is also important that health professionals:

- have an understanding of the normal range of emotions at each stage of the perinatal period so that they are better equipped to identify anxiety and depressive symptoms if they occur
- allow time to assess the woman's situation (including the attitudes and availability of support from her significant other[s] and social network)
- listen to the woman and encourage her to express her feelings about pregnancy and motherhood
- ascertain and address any misconceptions or need for information
- build rapport, maintain a non-judgemental attitude and address any feelings of stigma (very common).

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 mental health referral is necessary, the process should be managed in an empowering, supportive way.

2.1.1 Engaging women in mental health care

Factors that improve a woman's experience of accessing and engaging with mental health care in the perinatal period include being given the opportunity to develop trusting relationships with health care professionals who acknowledge and reinforce the woman's role in caring for her baby in a non-judgmental and compassionate manner, and foster hope and optimism about treatment (Megnin-Viggars et al 2015). High quality information for women, their families and healthcare professionals, and the provision of individualised care and treatment, are also crucial (Megnin-Viggars et al 2015).

2.1.2 Cultural safety

Cultural safety is based on the basic human rights of respect, dignity, empowerment, safety and autonomy (Phiri et al 2010). Cultural safety is the final step on a continuum of care that includes cultural awareness, cultural sensitivity, cultural knowledge, cultural respect and cultural competence. Cultural safety is the recipient's own experience and cannot be defined by the caregiver (CATSINaM 2014). The concept of 'cultural safety' focuses on social position to explain health status rather than on the 'values, beliefs and traditions' of a particular group (Williamson & Harrison 2010). This approach considers the dynamic nature of culture and the diversity within groups, avoids stereotyping and identifies the needs of the individual receiving care. Strategies to ensure culturally safe care include optimising communication (e.g. through the use of accredited interpreters), building sound relationships, acknowledging women's cultural preferences (Phiri et al 2010) and reflecting on and analysing how power relationships and history have affected the health of individuals (Kruske et al 2006).

2.1.3 Aboriginal and Torres Strait Islander women

Health professionals working with Aboriginal and Torres Strait Islander peoples are often confronted with extremely complex presentations encompassing mental health problems, cultural disconnection and multiple stressors in the form of poverty or poor housing, child removal, as well as trauma, abuse and loss (AIHW 2014). This level of complexity requires:

- different models of engagement and new approaches and ways of thinking about mental health – trauma-informed care (see below) is particularly important when working with this population
- greater understanding about the determinants of mental health and wellbeing
- recognition of factors consistently identified by Aboriginal and Torres Strait Islander people as critical to the design and delivery of effective services and programs aimed at improving their mental health and social and emotional wellbeing – these include Indigenous definitions of health and wellbeing as holistic, underscored by connections to culture, family, community and country
- changes in the cultural competence of mental health systems, services, professions, disciplines and individual professionals.

The **Pregnancy Care Guidelines** (DoH 2018) include a chapter on optimising care for Aboriginal and Torres Strait Islander women, which is applicable to both the antenatal and postnatal periods.

2.2 Care provision

2.2.1 Recovery-oriented mental health care

The principles of recovery-oriented mental health care are:

- *individual uniqueness* – recovery is about having opportunities, living a meaningful, satisfying and purposeful life and being a valued community member; outcomes are personal and unique with an emphasis on social inclusion and quality of life; individuals are central to the care they receive
- *real choices* – individuals make choices about how they want to lead their lives; are supported to build on their strengths and take as much responsibility for their lives as they can; duty of care is balanced with support for individuals to take positive risks and make the most of new opportunities
- *attitudes and rights* – involves listening to, learning from and acting upon communications from individuals; promotes and protects their rights; supports individuals to maintain social, recreational, occupational and vocational activities; instils hope in an individual about his or her future
- *dignity and respect* – involves courtesy, respect and honesty in all interactions; having sensitivity and respect for the values, beliefs and culture of each individual; and challenging discrimination
- *partnership and communication* – involves working in partnership with individuals and their carers; valuing the importance of sharing information and communicating clearly; and working together in positive and realistic ways to help individuals realise their own hopes, goals and aspirations
- *evaluating recovery* – involves individuals and their carers tracking their own progress and services using the individual's experiences of care to inform quality improvement activities.

2.2.2 Trauma-informed care

Most people attending mental health services are survivors of psychological and emotional trauma. Trauma-informed care is grounded in an understanding of and responsiveness to the impact of trauma, with an emphasis on physical, psychological, and emotional safety for both providers and survivors and creating opportunities for survivors to rebuild a sense of control and empowerment (Kezelman & Stavropoulos 2012). Core principles of trauma-informed care are (Kezelman & Stavropoulos 2012):

- ensure physical and emotional safety
- maximise trustworthiness through task clarity, consistency, and interpersonal boundaries
- maximise consumer choice and control
- maximise collaboration and sharing of power
- prioritise empowerment and skill-building.

2.3 Support and information⁵

Key points to discuss with women are that mental health conditions are not uncommon and that treatments are available.

In any health interaction, a woman has the right to (CHF 2004):

- determine what treatment she accepts or chooses not to accept
- be given easily understandable explanations in her first language of the details of her specific health problem, any proposed treatments or procedures and the results of any tests performed
- have access to all health information about herself and her baby
- be treated with respect and dignity and know that, in the majority of cases, her health information will be kept confidential.

Health professionals and women need to communicate and collaborate in a team approach (Kryzanauskas 2005). The woman's input – and that of her significant other(s) when she chooses – is an important part of this process (NHMRC 2010). Consistency of information, especially if this is provided by different professionals, is very important.

Making a choice or consenting should be an ongoing process of discussion between a woman and the health professionals involved in her care.

2.3.1 Implications of low health literacy for maternal mental health surveillance and support

Health literacy refers to the degree to which an individual can obtain, communicate, process and understand basic health information and health services to make appropriate decisions. Low health literacy is inextricably linked to poor mental health outcomes. It is important that health services tailor care to populations likely to have low health literacy, including Aboriginal and Torres Strait Islander families and families of refugee background, for example by involving Aboriginal and Torres Strait Islander or bicultural workers in facilitating conversations and in brokering trusting relationships with health professionals involved in their care.

2.4 Continuity of care

The benefits of midwifery continuity of care and carer when providing maternity services are well-documented (Sandall et al 2016; WHO 2016). Continuity of care involves a shared understanding of care pathways by all professionals involved in a woman's care, with the aim of reducing fragmented care and conflicting advice (DoH 2018). Continuity of carer is when a health professional, who is known by the woman, provides all of her care as appropriate, thus enabling the development of a relationship (DoH 2018). Factors that may improve continuity of care include sharing of information (e.g. through documenting of all assessments), collaborative development of management plans, developing linkages and networks and adapting successful approaches to care (e.g. case conferencing, shared care approaches) (DoH 2018).

5. This section is adapted from (Australian Health Ministers' Advisory Council 2012).

Part B – Screening and psychosocial assessment

This section describes screening, which aims to detect signs and symptoms of depressive and anxiety disorders and psychosocial assessment, which aims to identify the presence of psychosocial factors that are known to be associated with an elevated likelihood of mental health conditions in the perinatal period.



3 Considerations before screening and psychosocial assessment

Key considerations for service provision are outlined below.

- *Systems for follow-up and support* – Before screening and assessment is carried out, systems need to be in place to ensure that appropriate follow-up care can be provided if required, particularly if there are concerns for the safety of the woman, the fetus or infant or other children in the woman's care. Health professionals will benefit from identifying other professionals from whom they can seek advice, clinical supervision or support regarding mental health care in the perinatal period. This could potentially be supported through electronic referral pathways or directories.
- *Who attends assessment* – Consideration should be given to other people who may be present, as women need to feel safe during screening and assessment. While the presence of significant others may be helpful, sensitivity is required about whether it is appropriate to continue with psychosocial assessment while they are in the room. Screening for family violence (see the [Pregnancy Care Guidelines](#)) should only be conducted when alone with the woman. An opportunity to view a woman's relationship with her infant and partner is provided if postnatal assessments are carried out with baby and partner present (see Section 7.1).
- *Informed consent* – An explanation of the purpose of screening and assessment should be given before they take place and it is important to stress that this is part of routine care and results will generally remain confidential. Consent can be readily integrated with consent processes for existing routine antenatal and postnatal care procedures. If a woman declines assessment and/or screening, her reasons should be explored and documented. Assessment and screening should be offered at subsequent consultations.
- *Confidentiality* – Women should be given information about confidentiality, including that health professionals have a duty of care to communicate to key others any perceived risk of harm to a woman or her baby but will only share information relevant to the risk.
- *Follow-up to screening* – Decision-making about the need for and type of follow-up mental health care is based on clinical presentation and responses at interview and/or structured assessment, and the woman's preferences. The initial assessment in the primary setting is not diagnostic and aims to identify women who would like help with their distress or symptoms, or who need further assessment for a possible psychiatric condition, so that they receive the care (including diagnostic assessment) they need.
- *Ongoing care and support* – Most women will not need further monitoring or mental health assessment, while many of those who need it will not accept it, at least initially. Providing ongoing exploration of their symptoms and information and encouraging continuing contact with an appropriate health professional may support women in seeking further assistance. Screening and assessment is likely to be easier and more effective when a woman has a relationship with her care provider. While it is ideal that ongoing mental health care in the perinatal period is provided by a woman's regular GP, not all women have access to this type of care or choose it when it is available. In such situations, women should be assisted to identify a health professional with the appropriate skills and knowledge to provide culturally safe ongoing care.

4 Acceptability of screening and psychosocial assessment

Mental health screening that occurs as a component of routine antenatal and postnatal care is acceptable to women and health professionals and, while barriers exist, is considered a feasible approach to perinatal mental health care (Austin & Kingston 2016; Venkatesh et al 2016).

4.1 Acceptability of screening among health professionals and women

- Studies have reported high levels of acceptability of perinatal mental health screening among health professionals in Australia (Reay et al 2011; Bowen et al 2012; Austin et al 2013; Bales et al 2015), Canada (Kingston et al 2015b), the United States (Chew-Graham et al 2009; Miller et al 2009) and as reported in systematic reviews (El-Den et al 2015).
- Vulnerable women also report high acceptability, including those with high depression scores at the time of screening (Gemmill et al 2006), women of non-English-speaking background (Matthey et al 2005), those with a previous diagnosis or treatment history for mental condition (Kingston et al 2015b) and those experiencing family violence (Matthey et al 2005).
- Fewer than 4% of women refuse health professional-initiated screening (Chew-Graham et al 2009; Miller et al 2009; Austin et al 2010). These rates may be even lower as women's ability to be honest about emotional health is strongly associated with their comfort with the mode of assessment (Kingston et al 2015b).
- A recent Canadian study found that 99% of pregnant women who had not been screened would have been comfortable with health professional-initiated screening, and 97% of those who had been screened reported the same (Kingston et al 2015b). Demographics, type of health professional and history of diagnosis or treatment for mental condition were unrelated to whether pregnant women found screening acceptable or not (Kingston et al 2015b).

4.2 Barriers to routine perinatal screening, follow-up assessment and treatment

- Barriers to screening and referral among health professionals include lack of time, education and linkages with mental health resources (Kim et al 2010; Byatt et al 2012). It is recognised that each of these barriers may be alleviated by using innovative approaches to screening, information provision and e-referral pathways.
- Barriers among women include stigma, significant others normalising their emotional difficulties, desiring to manage mental health problems on their own, preferring to discuss feelings with significant others, not knowing what emotions are 'normal' and perceiving that the health professional is disinterested or lacks time (Highet et al 2014; Kingston et al 2015a; Kingston et al 2015b). This may be improved by the provision of timely, relevant information and education about emotional and mental health in the perinatal period.
- While 30% of Australian women give birth in the private sector, most of them will not be offered routine psychosocial assessment (Reilly et al 2013b) or screening for depression, although a study in a private hospital setting found that when assessment and screening were conducted almost one in ten women required referral for further assessment and clinical support (Kohlhoff et al 2016). Thus, although many women may prefer private care, when it comes to mental health care, these women may in fact be disenfranchised.
- Screening is often not available, accurate or appropriately administered for women of non-English speaking backgrounds due to the lack of validated screening tools in other languages, and/or the accuracies and costs associated with interpreter services. In a recent screening and treatment program at a metropolitan hospital in Melbourne, fewer than 4% of non-English speaking women were offered perinatal screening in a maternity setting (compared to 49% of English-speaking women) (Highet & Bilbao 2015).
- Research suggests that only half of women who screen positive follow up with a subsequent mental health assessment (Kim et al 2010; Reay et al 2011) and 30–85% (Marcus et al 2003; Woolhouse et al 2009; Reay et al 2011; Bowen et al 2012; Bales et al 2015) do not engage in treatment. This may be improved by consumers as well as health professionals having access to timely and appropriate referral pathways.

4.3 Facilitators of screening and subsequent mental health care

- Health professionals in settings that have implemented an infrastructure for routine psychosocial assessment and mental health screening as part of a system of assessment-referral-care have found it to be a feasible, effective approach (Sword et al 2008; Mitchell & Coyne 2009; Flynn et al 2010; Reay et al 2011).
- Screening rates can increase if health professionals are educated about perinatal mental health and trained in the use of a validated tool (Goldin Evans et al 2015). Increases in screening rates are associated with e-screening, in which women self-assess and receive advice about whether they should seek further assessment based on the score provided.

- The provision of specific MBS items that mandate and incentivise screening, and the requirement for Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) trainees to have perinatal mental health training as a core competency, would go a long way towards addressing the imbalance between screening in the public and private maternity sectors.
- Medicare items 16590 and 16591 have been amended to further support mental health assessment to be undertaken after 28 weeks gestation. A new Medicare item (16407) has been introduced to include mental health assessment between 4 and 8 weeks after the birth. These items will support screening in line with best practice – particularly in the private sector where screening rates are significantly lower (when compared with the public maternity sector).
- Women are more likely to accept mental health screening when there is continuity of carer, the health professional is sensitive and interested, and women are reassured that mental health care is part of routine antenatal care, that other women experience emotional problems during pregnancy and that help is available (Kingston et al 2015a). Being informed about screening in advance also improves women's acceptance of screening (Brealey et al 2010).
- Women who are not asked about emotional health are far less likely to seek formal mental health care during pregnancy (AOR 0.09, 95% CI 0.04 to 0.24) or postpartum (AOR 0.07, 95%CI 0.02 to 0.13) (Reilly et al 2014).
- Formal referral following assessment increases the number of women who engage in treatment – women who do not receive a formal referral are less likely to engage in treatment in pregnancy (AOR 0.26, 95% CI 0.15–0.45) and postpartum (AOR 0.14, 0.07-0.27) (Reilly et al 2013a).

CONSENSUS-BASED RECOMMENDATION

- All health professionals providing care in the perinatal period should receive training in woman-centred communication skills, psychosocial assessment and culturally safe care.**

5 Screening for depressive and anxiety disorders

'Screening' entails the application of a validated test (or questionnaire) to identify people who may be experiencing a particular disorder. Screening tools are not diagnostic. The administration of a screening tool for depressive or anxiety disorder is part of a multicomponent program which must include clear rules for further assessment of women who are screening positive; appropriate staff training in screening methods; adequate mental health referral pathways and effective treatments.

Accurately identifying women experiencing symptoms of depression and anxiety enables referral for more formal mental health assessment and suitable follow-up, with a view to improving outcomes for women. The screening process is informed by the considerations outlined in Chapter 3.

The context for screening has changed in the years since the release of the initial guideline on mental health in the perinatal period (*beyondblue* 2011), with:

- increased awareness of the prevalence of not only antenatal and postnatal depression but also anxiety
- further research conducted into the effectiveness of screening tools and how they may be integrated into comprehensive screening programs
- the increased range and availability of innovative methods of screening (e.g. using electronic tools).

5.1 Screening for depression

5.1.1 Summary of the evidence

Assessment of screening tools for depression included consideration of sensitivity (the proportion of people with the condition who have a positive result; true positive rate) and specificity (the proportion of people without the condition who have a negative result; true negative rate). Sensitivity and specificity were defined as: high >0.90; moderate 0.70–0.90 and low <0.70. Further details are included in Tables C2 and C3, Appendix C.

Antenatal screening

The systematic review identified evidence on four screening tools for depression in the antenatal period – the Edinburgh Postnatal Depression Scale (EPDS), the depression module of the Patient Health Questionnaire (PHQ-9), the Whooley Questions and the Kessler Psychological Distress Scale (K-10).

A score of 13 or more on the EPDS has moderate sensitivity and high specificity for detecting possible major depression⁶ in pregnant women (high quality). A score of 10 or more has moderate sensitivity and specificity (moderate quality; NICE 2015).

It is uncertain whether the other tools (at relevant cut-offs) have adequate sensitivity or specificity to detect possible depressive disorders in pregnant women (very low to low quality; NICE 2015).

Postnatal screening

The systematic review identified evidence on the effectiveness of five screening tools for depression in the postnatal period – the EPDS, PHQ-9, shorter versions of the PHQ-9 (PHQ-2), the Whooley Questions and the K-10.

A score of 13 or more on the EPDS has moderate sensitivity and high specificity for detecting possible major depression in the postnatal period (high quality). A score of 10 or more has moderate sensitivity and specificity (high quality; NICE 2015).

It is uncertain whether the other tools (at relevant cut-offs) have adequate sensitivity or specificity to detect possible depressive disorders in pregnant women (very low to low quality; NICE 2015).

6. While the DSM criteria for diagnosing minor or major depression are not suitable for diagnosis in the perinatal period, they were used to measure outcomes in the studies.

Non-technical characteristics of screening tools

Assessment of the non-technical characteristics of the tools found that ease of administration and implementability were high for all tools, acceptability was high for the EPDS and unknown but likely to be good for the other tools. The EPDS is the only one of the tools for which effectiveness (defined as positive impact on depressive symptoms, services referred or used and impact on a woman's mental health) is rated 'good' and that has been validated in other languages.

EVIDENCE-BASED RECOMMENDATIONS

STRONG

1. Use the EPDS to screen women for a possible depressive disorder in the perinatal period.
2. Arrange further assessment of perinatal woman with an EPDS score of 13 or more.

Appendix D includes the EPDS and information on calculating a woman's score.

5.1.2 Other considerations in screening for depression

Timing of screening

Screening should be timed to make use of available resources and routine contacts between the woman and the health professionals involved in her care:

- an obvious contact point is the first antenatal visit, however, it is acknowledged that the time available at this visit and the number of other assessments undertaken may limit opportunities for assessment of mental health
- postnatal assessments may be timed to coincide with routine maternal and infant checks.

Timing of repeat screening is based on results of the initial screen and clinical indications.

CONSENSUS-BASED RECOMMENDATIONS

- ii. Complete the first antenatal screening as early as practical in pregnancy and repeat screening at least once later in pregnancy.
- iii. Complete the first postnatal screening 6–12 weeks after birth and repeat screening at least once in the first postnatal year.
- iv. For a woman with an EPDS score between 10 and 12, monitor and repeat the EPDS in 2–4 weeks as her score may increase subsequently.
- v. Repeat the EPDS at any time in pregnancy and in the first postnatal year if clinically indicated.

Mode of assessment

As a self-report tool, the EPDS is usually completed by the woman, preferably without consultation with others. It may at times be appropriate for the health professional to verbally administer the questionnaire whether face to face or by phone. Electronic screening, in which women complete the EPDS electronically and receive advice on whether further assessment is advisable based on their overall score, anxiety items and response to question 10, is an emerging practice.

Risk of harm

Regardless of the total EPDS score, perinatal women with a positive score on Question 10 may be at risk of harming themselves and/or their children, so further assessment is required. Section 7.3 provides guidance on assessing the risk of self-harm or suicide.

CONSENSUS-BASED RECOMMENDATION

- vi. For a woman with a positive score on Question 10 on the EPDS, undertake or arrange immediate further assessment and, if there is any disclosure of suicidal ideation, take urgent action in accordance with local protocol/policy.

Women who decline screening

As discussed in Section 4.1, some women may not accept the offer of screening for a range of reasons. In such situations, the woman may prefer to complete the EPDS electronically and will receive advice on whether further assessment is recommended. As the therapeutic relationship develops, subsequent offers of the EPDS may be accepted.

5.2 Culturally appropriate screening for depression

5.2.1 Aboriginal and Torres Strait Islander women

EPDS scores among Aboriginal and Torres Strait Islander women may be influenced by factors such as understanding of the language used, mistrust of mainstream services or fear of consequences of depression being identified (i.e. involvement of child protection services). 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). A recent adaptation of the EPDS assessed in the Kimberley includes an additional component of psychosocial assessment, acknowledging the contribution that stressful events and social health issues play in maternal mental health (Marley et al 2017). Many elements of the approach taken to adapting this instrument (i.e. the way in which questions are asked, implementation by Aboriginal health workers) are likely to have broader relevance to urban as well as remote and regional Aboriginal and Torres Strait Islander communities.

If use of the EPDS is considered inappropriate, involvement of Aboriginal health worker may facilitate assessment of symptoms of depressive or anxiety disorders.

CONSENSUS-BASED RECOMMENDATION

vii. When screening Aboriginal and Torres Strait Islander women, consider language and cultural appropriateness of the tool.

5.2.2 Migrant and refugee women

Scores used to identify possible depression in migrant and refugee women are generally lower than those used in the general Australian population. Specific scores are given in translated versions of the tool.

For some migrant and refugee women, the performance of the EPDS may be influenced by cultural practices (such as attending the consultation with a family member) or the perceived degree of stigma associated with depression.

CONSENSUS-BASED RECOMMENDATION

viii. Use appropriately translated versions of the EPDS with culturally relevant cut-off scores. Consider language and cultural appropriateness of the tool.

5.3 Screening for anxiety

The systematic review identified evidence on the accuracy of screening tools for identifying possible anxiety disorders in the:

- *perinatal period* – the full EPDS (Grigoriadis et al 2011; Simpson et al 2014), items 3, 4 and 5 of the EPDS (EPDS-3A) (Grigoriadis et al 2011; Simpson et al 2014) and the Generalised Anxiety Disorder 7-Item Scale (GAD-7) (Simpson et al 2014).
- *antenatal period* – the full EPDS (Tran et al 2011), the General Health Questionnaire (GHQ) (using 12, 28 or 30 items) (Sharp 1988; Kitamura et al 1989; Aderibigbe & Gureje 1992; Abiodun et al 1993; Kitamura et al 1994; Tran et al 2011), the Hospital Anxiety and Depression Scale (HADS) (Abiodun et al 1993), K-10 (Spies et al 2009) and the State-Trait Anxiety Inventory (STAI) (Grant et al 2008).
- *postnatal period* – the full EPDS (Navarro et al 2007; Tran et al 2011), the GHQ (using 12 or 30 items) (Nott & Cutts 1982; Kitamura et al 1994; Navarro et al 2007; Tran et al 2011).

The evidence was heterogeneous in terms of study characteristics and cut-off values used and firm conclusions could not be drawn. In the absence of a free, practical screening tool for anxiety disorders with adequate evidence in the perinatal period, clinical judgment must be used. This may include consideration of items 3, 4 and 5 of the EPDS (Matthey et al 2013a; Matthey et al 2013b).

CONSENSUS-BASED RECOMMENDATIONS

- ix.** Be aware that anxiety disorder is very common in the perinatal period and should be considered in the broader clinical assessment.
- x.** As part of the clinical assessment, use anxiety items from other screening tools (e.g. EPDS items 3, 4 and 5, DASS anxiety items and K-10 items 2, 3, 5 and 6) and relevant items in structured psychosocial assessment tools (e.g. ANRQ).

6 Assessing psychosocial factors that affect mental health

Psychosocial assessment allows identification of circumstances (past and present) that affect a woman's mental health and is conducted in addition to screening for symptoms of depression and/or anxiety. The care pathway following psychosocial assessment is influenced by the number and type of psychosocial factors identified. More approaches or interventions are likely to be required for women who are experiencing multiple psychosocial factors. The presence of complex risk factors will require a coordinated multidisciplinary approach to the woman's care plan.

Psychosocial assessment can be undertaken as part of the clinical interview and/or using a structured psychosocial assessment tool. Different approaches can be taken to suit the setting, health professional confidence and skill set, as well as time constraints. Structured questionnaires are useful in providing a comprehensive, time-efficient overview of the woman's circumstances, especially when the health professional is not experienced in undertaking a detailed psychosocial assessment as part of the broader clinical evaluation.

PRACTICE POINT

- a. Assess psychosocial risk factors as early as practical in pregnancy and again after the birth.

6.1 Psychosocial assessment tools

6.1.1 Summary of the evidence

Tools developed with the aim of identifying psychosocial factors in the antenatal and postnatal periods, for which there is moderate to high quality evidence include the Antenatal Psychosocial Health Assessment (ALPHA), the AnteNatal Risk Questionnaire (ANRQ) and the Pregnancy Risk Questionnaire (PRQ). Evaluation of these tools for their technical performance and acceptability found the following.

ALPHA

The ALPHA (Carroll et al 2005) is a 34-item questionnaire, which does not generate a total risk score but asks the clinician to score their level of concern on a 7-point scale. Broadly it assesses: relationship with partner, substance use, social support, recent stressful life events, attitude to pregnancy, lack of self-esteem, previous history of depression or during pregnancy, having witnessed or experienced abuse as a child, and quality of relationship with parents in childhood.

The ALPHA has limited psychometric properties, is moderately acceptable to users and is effective in identifying family violence (OR 2.7; 95%CI 1.1 to 6.9) (moderate quality) and 'high level of psychosocial concern' on the health professional's part (OR 2.8; 95%CI 0.7 to 11.7). The ALPHA does not have adequate capacity to identify women at increased risk of postnatal depression but 'may be particularly useful for raising and discussing sensitive (psychosocial) issues' (Blackmore et al 2006).

PRQ

The Pregnancy Risk Questionnaire PRQ (Austin et al 2005) the longer antecedent to the ANRQ (see below), is an 18-item tool covering similar domains to those of the ALPHA.

It has acceptable psychometric properties and is effective in predicting cases of postnatal depression and anxiety (OR 9.18; $p < 0.001$) (moderate quality), with sensitivity 0.44, specificity 0.92, positive predictive value 0.235 and negative predictive value 0.968. The PRQ is considered too lengthy for routine use in the public health setting (Austin et al 2005).

ANRQ

The ANRQ (Austin et al 2013; Reilly et al 2015) is a 13-item structured questionnaire with categorical (yes/no) and dimensional (1 to 5) responses, which generates a total psychosocial risk score (cumulative risk) as well as identifying specific risk factors that independently put the woman at greater psychosocial risk (past history of trauma or significant mental health condition). The ANRQ covers relationship with partner, social support, recent stressful life events, anxiety or perfectionism, past history of depression or other mental health conditions (and treatment for same), having experienced abuse as a child or as an adult, and quality of relationship with mother in childhood.

The ANRQ has acceptable technical performance in identifying women at greater risk of postnatal depression and anxiety disorder (OR 6.3 [95% CI 3.5 to 11.5]; sensitivity 0.62; specificity 0.64; positive predictive value 0.3; negative predictive value 0.87) and has a positive effect on rates of referral for mental health assessment (moderate quality). Ease of administration and acceptability among women are high.

A cut-off score of 23 or more is recommended but women with a significant mental health history or history of abuse are at increased risk of poor psychosocial outcome irrespective of the total ANRQ score. As the items on the ANRQ are applicable to both pregnancy and postnatal women, it can be used postnatally using the same cut-off score.

Appendix D includes the ANRQ and guidance on its use in clinical practice, scoring and interpretation of results.

EVIDENCE-BASED RECOMMENDATION

STRONG

- 3. If using a tool to assess psychosocial risk, administer the ANRQ.**

CONSENSUS-BASED RECOMMENDATION

- xi. Undertake psychosocial assessment in conjunction with a tool that screens for current symptoms of depression/anxiety (i.e. the EPDS).**

6.2 Other considerations in psychosocial screening

As a clinically useful psychosocial assessment tool needs to be brief and to cover the key risk domains, it cannot be fully comprehensive and should be used to “start the conversation” so that particular domains can then be explored further as needed.

6.2.1 Further exploration and interpretation of psychosocial assessment

Psychosocial risk items endorsed by the woman (whether through use of a structured tool or as part of a broader interview) need to be further explored and documented. The results of the evaluation need to be conveyed to the woman and then (in consultation with the woman) be translated into a tangible approach to referral or monitoring. This will be reliant on the availability of adequate referral pathways.

PRACTICE POINTS

- b. Ensure that health professionals receive training in the importance of psychosocial assessment and the use of a psychosocial assessment tool.**
- c. Ensure that there are clear guidelines around the use and interpretation of the psychosocial tool/interview in terms of threshold for referral for psychosocial care and/or ongoing monitoring.**

6.2.2 Education about psychosocial risk factors

Given the potential impact that psychosocial risk factors may have on a woman’s mental health and the wellbeing of her baby/other children, it is important that all women are provided with information about the nature of the different risk factors that may increase her likelihood of experiencing a mental health condition in the perinatal period. In turn this provides an opportunity to identify supports (protective factors) to assist in the prevention of mental health conditions, and/or raise awareness of the importance of early symptom recognition to facilitate early detection and intervention.

PRACTICE POINT

- d. Discuss with the woman the possible impact of psychosocial risk factors (she has endorsed) on her mental health and provide information about available assistance.**

6.2.3 Culturally appropriate assessment of psychosocial risk

The psychosocial assessment tools described above are only available in English and no published evidence has been identified describing their use in Aboriginal and Torres Strait Islander or migrant and refugee women. A more conversational approach to psychosocial assessment may be needed in these groups, with a focus on developing rapport and trust.

A South Australian study (of Aboriginal women) found that women were happy to be asked about social health issues, including family and community violence, when questions were asked by Aboriginal community women in an interview or when women were given the option to self-complete a questionnaire (Weetra et al 2016). Similarly, involvement of multicultural health workers may be a consideration in assessment of migrant and refugee women.

Consideration should also be given to psychosocial risk and protective factors that are not covered in the tools but may be relevant to specific groups (see Section 1.1).

CONSENSUS-BASED RECOMMENDATION

xii. Consider language and cultural appropriateness of any tool used to assess psychosocial risk.

6.2.4 Assessment of specific social and lifestyle factors

Routine assessment of specific social and lifestyle factors that affect perinatal outcomes and may also be associated with mental health is described in the [Pregnancy Care Guidelines](#) (DoH 2018). This includes:

- family violence
- lifestyle factors including nutrition, physical activity, substance use and smoking.

7 Assessing mother-infant interaction and safety of the woman and infant

7.1 Mother-infant interaction⁷

The following table provides a list of prompts to assess difficulties in the mother-infant relationship. The list is not exhaustive and is not intended to be used as a checklist or formal assessment tool. Rather, it indicates areas of functioning that are important to the mother-infant relationship. If any concerns arise, consulting with and/or referring to the appropriate specialist service is a consideration.

Table 7.1: Indications of potential difficulties and protective factors in the mother-infant interaction

Psychosocial risk factors	Relationship factors (observed or reported)
<ul style="list-style-type: none"> • Unresolved family of origin issues • History of physical/sexual abuse, family violence, childhood neglect • Past pregnancy loss or excess pregnancy concern • Unplanned or unwanted pregnancy • Was the mother able to touch the baby on the day of birth? • Did the mother have responsibility for infant care during the first week of life? • Who is involved in the baby's care? • Availability of emotional/social/practical support • How much time does the mother spend away from the baby? • Is the mother excessively worried about the baby? 	<ul style="list-style-type: none"> • Is the mother thoughtful about her baby? • Can the mother describe the baby's daily routine? • Is the mother able to reflect on the baby's needs? • Does the mother express empathy for the baby? • Does the mother engage in enjoyable activities with the baby? • Does the mother play/talk appropriately with the baby? • Does she delight in her baby? • Does the baby ever make her feel uncomfortable, unhappy or enraged? • Is the mother excessively worried about the baby? • Does the mother cope with the baby's distress? • Does she respond and attend appropriately to the baby's cues? • Are her responses consistent? • Is she protective of the baby?
Infant factors	Maternal factors
<ul style="list-style-type: none"> • Is baby achieving normal developmental milestones? • Is the baby growing adequately? • Are there feeding difficulties, reflux, gastric distress, sleep difficulties? 	<ul style="list-style-type: none"> • Current maternal psychopathy • Antenatal or postnatal mood disorder • Psychosis • Diagnosed personality disorder • Suicidal or homicidal ideation • Negative symptoms (low motivation, anhedonia, blunted affect, poverty of thought/speech) • Medication side-effects • Substance abuse • Engaging in dangerous or risk-taking behaviours (e.g. alcohol or drug misuse)
Infant behaviour of concern (observed or reported)	Protective factors
<ul style="list-style-type: none"> • Gaze avoidance • Flat affect • Lack of crying • Limited vocalising • Emotionally under-responsive • Interacts too easily with strangers (age-dependent) • Unsettled sleep or feeding • Difficult to console when distressed • Irritable, constant crying • Difficulty separating from parent (age-dependent) 	<ul style="list-style-type: none"> • Mother is sensitive to the baby • Mother is able to monitor the baby's well-being adequately • Mother is responsive to the baby • Mother is able to cope with flexibility in her routine • Mother has a close relationship with at least one other adult • Mother is thoughtful about what might be going on in the baby's mind

7. This section is adapted from (Stefan et al 2009).

PRACTICE POINTS

- e. Assess the mother-infant interaction as an integral part of postnatal care and refer to a parent-infant therapist as available and appropriate.
- f. Seek guidance/support from Aboriginal and Torres Strait Islander health professionals or bicultural health workers when assessing mother-infant interaction in Aboriginal and Torres Strait Islander or migrant and refugee women, to ensure that assessment is not informed by unconscious bias.

7.2 Risk to the infant

If difficulties with the mother-infant interaction as outlined above are observed and/or if the woman has a significant mental health condition, further assessment will be required. Risk of harm to the infant can be related to suicide risk in the mother but can also be a separate issue. Although expressions of fear of harming the baby may be a sign of anxiety rather than intent, these should always be further assessed.

The way in which risk to the fetus or infant is assessed depends on 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) and adapted to the perinatal context.

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

Action will depend on the answers to these questions. It is preferable that the mother and infant remain together but, if there is a perceived risk of harm to the infant, involvement of others (e.g. father or co-parent) in caring for the infant or alternative arrangements are advisable.

Notification to the relevant child protection agency may be necessary. All health professionals should be familiar with the legislation concerning reporting of concerns about children at risk of harm from abuse or neglect in their State or Territory. Health services and child and maternal agencies will generally have internal policies setting out these requirements.

PRACTICE POINT

- g. Assess the risk of harm to the infant if significant difficulties are observed with the mother-infant interaction, the woman discloses that she is having thoughts of harming her infant and/or there is concern about the mother's mental health.

7.3 Risk of suicide⁸

Suicide risk assessment requires clinical judgement, a sense of the woman in context, understanding of the baby/infant as both a protective factor and a risk factor, and awareness of how mental health symptoms might affect impulsivity.

7.3.1 Assessing the risk of suicide

Assessment of risk involves asking about the extent of suicidal thoughts and planning, including:

- *suicidal thoughts* – if a woman has suicidal thoughts, how frequent and persistent are they?
- *plan* – if the woman has a plan, how detailed and realistic is it?
- *lethality* – if the woman has a planned method, 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
- strengths and supports – availability, willingness and capacity of supports.

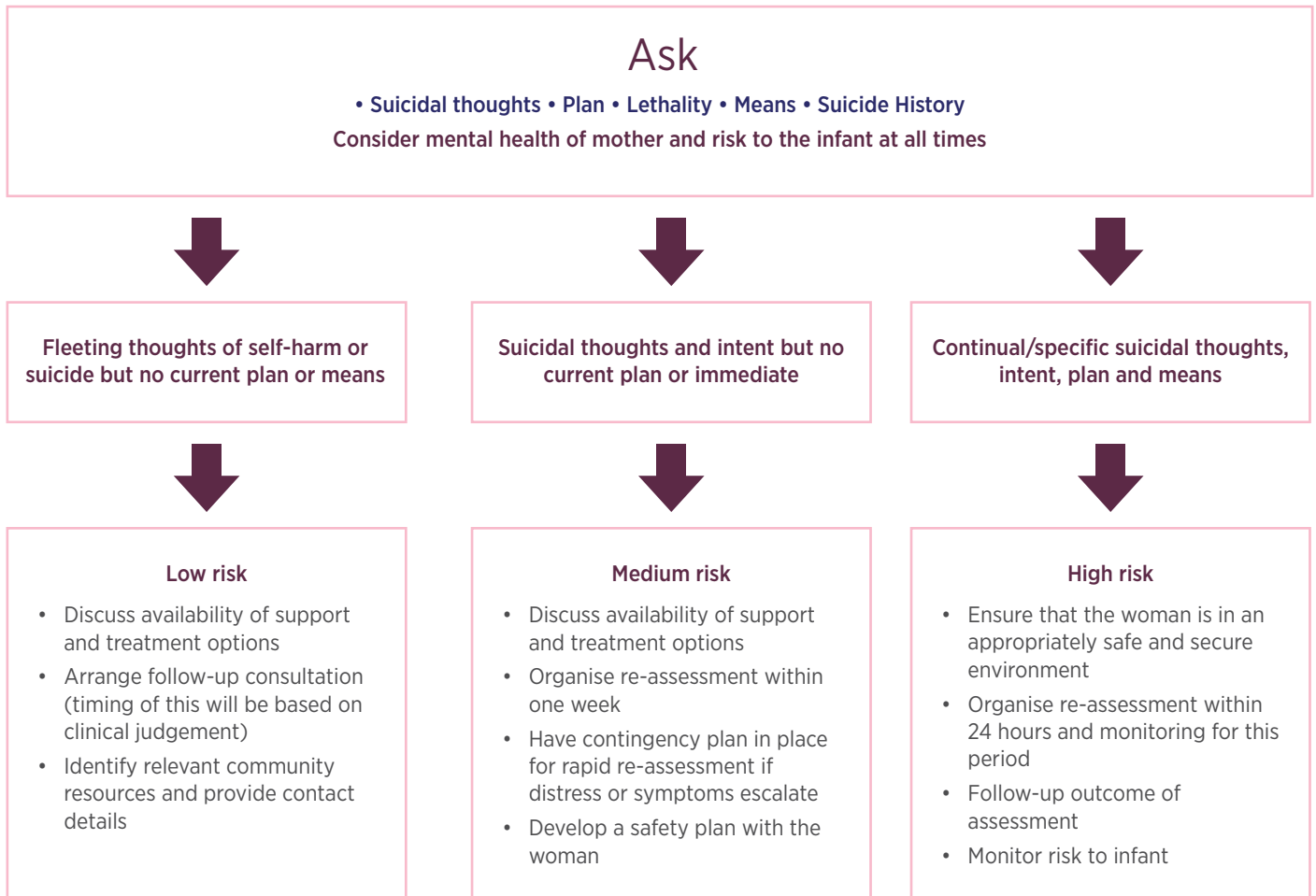
Whenever a woman is assessed as at risk of suicide, her capacity to care for the infant and any thoughts of harm to the infant should be assessed.

8. This section has been developed based on resources available through the Australian National Suicide Prevention Strategy (NSPS) website – www.livingisforever.com.au

7.3.2 Managing immediate risk

The following flowchart identifies some general principles in responding to risk of suicide. It will be necessary to adapt care and referral pathways to individual circumstances and local resources. Decisions will be informed by clinical judgement, including assessment of impulsivity. The safety of the baby must also be considered as there may also be a risk of infanticide.

Figure 7.1: General principles for responding to identified risk of suicide



7.3.3 Additional considerations in managing identified risk of suicide

- *Low risk* – Seek to understand what precipitates the fleeting thoughts. If triggers are core to the woman’s current perinatal experience (e.g. sense of maternal failure; shame about negative thoughts towards infant; interpersonal conflict), ensure a safety plan is specific to the issues.
- *Medium risk* – Assess context of current suicidal thoughts (e.g. previous suicide ideation or behaviours and outcomes). Establish factors that might contribute to escalation of risk (e.g. unsettled baby; conflict with partner). If triggers relate to the woman’s current perinatal experience (and cannot be immediately resolved), carers for infant/children and mother need to be located.
- *High risk* – Locate a support person to care for infants/children. A mother can deny intent yet be at high risk. A woman with significant perinatal mental health decline, inability to sleep, distorted thinking, inability to care for self or infant with fleeting thoughts her family would be better off without her can be just as at risk as a woman with intent.

7.3.4 Developing a safety plan

A safety plan prioritises coping strategies and sources of support that women can use if they experience suicidal thoughts. Developing 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) and actions to protect herself and the infant
- internal coping strategies that decrease the level of risk
- people within the woman's network who can assist in times of need
- health professionals and agencies that can be contacted for help.

Safety plans should be frequently revisited and modified as needed.

PRACTICE POINT

- h. When a woman is identified as at risk of suicide (through clinical assessment and/or the EPDS), manage immediate risk, arrange for urgent mental health assessment and consider support and treatment options.**

8 Implementing psychosocial assessment and screening

Routine assessment of all women in the perinatal period is critical to providing them with access to early intervention and improving outcomes for women and their families. While referral and care pathways vary with setting (e.g. general practice, maternity services) and the location (e.g. metropolitan, rural and remote), it is important that women are provided with access to timely, appropriate services post-assessment and ongoing psychosocial support.

8.1 Incorporating psychosocial assessment and screening into routine practice

Recommended psychosocial assessment and depression screening (e.g. with the EPDS) can be conducted by a variety of health professionals depending on where a woman seeks antenatal and postnatal care.

- *General practice* – In the general practice setting, screening and psychosocial assessment may be conducted by the general practitioner or a practice nurse.
- *Midwifery and maternal and child health care* – Midwives in public or private practice and maternal and child health nurses⁹ are well-placed to conduct screening and psychosocial assessment in the antenatal and postnatal periods, respectively.
- *Obstetric practice* – Obstetricians in public or private practice are responsible for ensuring that screening with the EPDS and psychosocial assessment take place. Regardless of who conducts the assessments (e.g. the obstetrician or a practice midwife), the woman's GP and the hospital at which the woman will give birth need to be notified if there are any concerns and relevant information included in the woman's discharge summary.

8.2 General approaches post-assessment

Screening and psychosocial assessment provide an indication of a woman's general mental health status and the presence of psychosocial risk factors but do not provide a diagnosis. After these assessments, it is necessary to determine whether comprehensive mental health assessment is required (which may lead to a psychiatric diagnosis) and identify supports and services tailored to the woman's needs. The approaches that may be appropriate vary depending on the woman's situation:

- **women with moderate to severe symptoms** will require comprehensive mental health assessment – subsequent management is likely to involve pharmacological treatment, ongoing psychosocial support and possibly psychological therapy once medication(s) have become effective (see Section 11.2.3)
- **women with a past history of a severe mental health condition** will require comprehensive mental health assessment before conception or in the antenatal period and additional support (particularly in the early postnatal period)
- **women with mild to moderate symptoms** may require comprehensive mental health assessment and may also benefit from some form of psychological therapy (see Section 11.2) in addition to psychosocial support
- **women experiencing mild depressive or anxiety symptoms in the early postnatal period** may benefit from practical and emotional support (e.g. advice on parenting, unsettled infants, sleep deprivation) and monitoring to determine the effectiveness of such support
- **women without current symptoms but experiencing significant psychosocial risk** (e.g. a recent separation) may benefit from ongoing psychosocial support.

Women with a pre-existing mental health condition may already be under the care of a GP, psychologist and/or psychiatrist (depending on the nature and severity of their condition). However, comprehensive mental health assessment is required if the woman has, or is suspected to have, a recurrence or new onset of severe mental health condition, suicidal thoughts or evidence of harm to herself or infant, or if other children in her care may be at risk of harm.

8.3 Referral and care pathways

The general principles for referral are the same in all settings. However, referral pathways will depend on the setting and the access to services available in the area. In all situations, there is a need for documentation, coordinated care and inter-professional communication as well as clear communication with the woman and her significant other.

9. Also referred to as child and family health nurses in some jurisdictions.

The urgency of the referral is a prime consideration, particularly when women have severe symptoms or suicidal thoughts. Women with severe mental health conditions 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, where mental health services may not be locally available and waiting times can be long, advice may need to be sought from a GP, visiting psychiatrist, telehealth or mental health support line (e.g. those provided by non-government organisations).

For women from Aboriginal and Torres Strait Islander or migrant and refugee populations, involvement of a culturally appropriate worker (e.g. Aboriginal and Torres Strait Islander health worker, cultural liaison officer, interpreter) is advisable.

- *General practice* – Where possible a GP will diagnose and develop a management plan for depressive and anxiety disorders. Women with symptoms suggestive of more serious low prevalence conditions should be referred directly to a psychiatrist. Once a psychiatric diagnosis is established, and where psychological therapy is deemed the best treatment approach, a GP may develop a mental health treatment plan to allow the woman to access the relevant Medicare items for psychological therapy.
- *Midwifery* – For midwives, referral pathways will differ depending on whether they are in the private or public sector, independent, involved in a group midwifery practice, working through an Aboriginal Medical Service or hospital-based. Midwives in a hospital-based setting may provide ongoing care and support to the family, seeking the advice of an in-house, psychiatrist and/or allied health professional (e.g. mental health nurse, psychologist) and/or social worker as required. Midwives in other settings may refer women to a GP or private mental health service providers.
- *Obstetrics* – For obstetricians in the public sector, referral pathways will usually be established with in-house social workers and allied mental health clinicians. Women may be referred back to their GP if there is shared care. For obstetricians in private practice, referral is likely to be to the woman's GP or directly to a psychologist or a psychiatrist, depending on the individual situation and availability. Only GPs and psychiatrists can provide a mental health care plan to access subsidised psychological care.
- *Postnatal care* – Most women will see a maternal and child health nurse in the postnatal period. In this setting, referral will likely be to a GP for further referral for counselling or psychological assessment. A maternal and child health nurse may provide ongoing care and support to the family, seeking the advice of a GP and/or allied mental health professional as required.

Addressing individual psychosocial risk factors is beyond the scope of this Guideline. In some situations, referral of women to other agencies (e.g. child protection, alcohol and drug, family violence and other support services) may be necessary.

8.4 Supporting emotional health and wellbeing

8.4.1 Ongoing psychosocial support

In all situations, there is an ongoing role for primary and maternity care professionals in the psychosocial care of women in the perinatal period. Regular enquiry about emotional wellbeing provides a woman with opportunities for discussion about how she is managing and allows health professionals to determine whether repeat depression screening or other assessments are indicated.

PRACTICE POINT

- i. At every antenatal or postnatal visit, enquire about the woman's emotional wellbeing.**

8.4.2 Lifestyle advice

All women in the perinatal period will benefit from advice on healthy diet in accordance with the *Australian Dietary Guidelines* (NHMRC 2013), physical activity and sleep patterns. These aspects of a woman's life may be disrupted during the perinatal period, which can contribute to impaired mental health. Lifestyle advice for the general population can be adapted to suit the woman's specific circumstances, taking into consideration the demands of the pregnancy or baby and other family needs. For example, it is highly likely that sleep patterns will be disrupted during the early postnatal period and women should be encouraged to rest during the day (e.g. when the baby is asleep). When specific advice on nutrition is required (e.g. if there is excessive gestational weight gain), referral to an accredited practising dietitian may be a consideration.

PRACTICE POINT

- j. Provide women in the perinatal period with 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.**

8.4.3 Electronic perinatal mental health support

There is emerging evidence of the efficacy of using e-mental health support in both prevention and treatment of perinatal mental health difficulties (Danaher et al 2012; Danaher et al 2013; Milgrom et al 2016). There is a range of options, including apps to support mental health and emotional wellbeing for individuals and couples during the perinatal period or for individuals who are experiencing suicidal thoughts, feelings, distress or crisis; and moderated online forums where people can connect with others with similar experiences and receive and provide advice and support. Many of these are provided by non-government organisations.

8.4.4 Psychological preparation for parenthood

Including psychological preparation for parenthood as a routine part of antenatal care has a positive effect on women's mental health postnatally (Australian Health Ministers' Advisory Council 2014). This type of education focuses on coping, problem-solving and decision-making skills; recognising distress and seeking help; cognitive restructuring; and psychosocial issues associated with parenthood.

8.5 Women with complex presentations

Inter-professional collaboration is strongly recommended in the care of women with comorbidities – such as multiple mental health conditions, a significant maternal or fetal medical condition, challenging personality traits, major psychosocial stressors (e.g. adolescent pregnancy, poverty, family violence or substance use).

How this might take place depends on the setting. For example, multidisciplinary case-planning meetings may be the most efficient approach in the public sector. 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.

Processes for monitoring outcomes and the continuing safety of the infant or family are required, particularly when women are at risk of loss to follow-up or there is a concern about risk to the infant or mother.

9 Practice summary – screening and assessment

Before assessment	Comments
Establish referral pathways	Identify appropriate health professionals available to provide follow-up care and to assist if there are concerns for the safety of the woman, fetus or infant Identify other professionals from whom you can seek advice, clinical supervision or support regarding mental health care in the perinatal period

Seek informed consent

Explain the purpose of the assessment and screening – emphasise that this is part of routine care and results will generally remain confidential

Antenatal period	When	Actions
Assess for depressive symptoms (EPDS)	As early as practical in pregnancy	Arrange further assessment for women with a score of 13 or more Repeat at least once in pregnancy and whenever clinically indicated
Assess for anxiety symptoms	When conducting EPDS	Refer to relevant items of the EPDS, DASS or K-10
Assess psychosocial risk factors	As early as practical in pregnancy	Further explore psychosocial risk as needed
Assess maternal safety	Based on EPDS Q10 and clinical judgement	Manage immediate risk and arrange specific assessment
Enquire about emotional wellbeing	Every antenatal visit	Determine whether repeat assessments are required
Provide lifestyle advice	At least once during pregnancy	Focus on healthy eating, physical activity and sleep hygiene
Psychological preparation for parenthood	At least once during pregnancy	Focus on coping, problem-solving and decision-making skills and psychosocial issues

Postnatal period	When	Comments
Assess for depressive symptoms (EPDS)	6–12 weeks after birth	Arrange further assessment for women with a score of 13 or more Repeat at least once in the first postnatal year and whenever clinically indicated
Assess psychosocial risk factors	6–12 weeks after birth	Further explore psychosocial risk as needed
Assess for anxiety symptoms	When conducting EPDS	Refer to relevant items of the EPDS
Assess maternal safety	Based on EPDS Q10 and clinical judgement	Manage immediate risk and arrange specific assessment
Assess mother–infant interaction	At postnatal contacts	If there are concerns, consult with or refer to appropriate specialist service
Assess infant safety	Difficulties with mother–infant interaction observed	Manage immediate risk and refer for mother–infant intervention
Enquire about emotional wellbeing	Every antenatal and postnatal visit	Determine whether repeat assessments are required
Provide lifestyle advice	Early postnatal period	Focus on healthy eating, physical activity and sleep hygiene

Part C – Prevention and treatment

This section outlines the current evidence on the effectiveness of psychosocial, psychological, pharmacological and complementary therapies in preventing and treating mental health conditions in the perinatal period. For pharmacological, physical and complementary therapies, information on potential harms to the fetus or infant is also included. Interventions are defined in the Glossary.



10 General principles in prevention and treatment

Approaches to prevention and treatment of specific mental health conditions are discussed in detail in Chapters 11 to 13. This chapter outlines general principles in promoting emotional wellbeing.

10.1 Care planning

Care planning for a woman with a mental health condition in the perinatal period sets out (NICE 2015):

- the care and treatment for the mental health condition
- the roles of all healthcare professionals, including who is responsible for:
 - > coordinating the integrated care plan
 - > the schedule of monitoring
 - > providing the interventions and agreeing on the outcomes with the woman.

The healthcare professional responsible for coordinating the care plan should ensure that (NICE 2015):

- everyone involved in a woman's care is aware of their responsibilities
- there is effective sharing of information with all services involved and with the woman herself
- mental health (including mental wellbeing) is taken into account as part of all care plans
- all interventions for mental health conditions are delivered in a timely manner, taking into account the stage of the pregnancy or age of the baby.

10.1.1 Providing information and advice

All women should be given culturally relevant information on mental health problems in pregnancy and the postnatal period, including their prevalence, risk factors and symptoms (NICE 2015).

CONSENSUS-BASED RECOMMENDATION

- xiii. Provide all women with information about the importance of enquiring about, and attending to, any mental health problems that might arise across the perinatal period.**

Additional information provided to women with mental health conditions and their significant other(s) should include (NICE 2015):

- the potential benefits of psychological interventions and pharmacological treatment
- the possible consequences of no treatment
- the possible harms associated with treatment
- what might happen if treatment is changed or stopped, particularly if pharmacological treatments are stopped abruptly.

PRACTICE POINT

- k. If a woman agrees, provide information to and involve her significant other(s) in discussions about her emotional wellbeing and care throughout the perinatal period.**

10.1.2 Preconception planning

Discussion with all women of childbearing potential who have a new, existing or past mental health condition should cover (NICE 2015):

- the use of contraception and any plans for a pregnancy
- how pregnancy and childbirth might affect a mental health condition, including the risk of relapse
- how a mental health condition and its treatment might affect the woman, the fetus and baby
- how a mental health condition and its treatment might affect parenting.

PRACTICE POINT

- I. Provide advice about the risk of relapse during pregnancy and especially in the early postpartum period to women who have a new, existing or past mental health condition and are planning a pregnancy.**

10.1.3 Planning care for women with severe mental illness

There are specific considerations in planning care for women with severe mental illness, with priority being given to ensuring that mental health professionals involved in their care take into account the complexity of these conditions and the challenges of living with severe mental illness. Where available, involvement of specialist perinatal mental health services is advisable.

PRACTICE POINT

- m. For women with schizophrenia, bipolar disorder or borderline personality disorder, a multidisciplinary team approach to care in the perinatal period is essential, with clear communication, advance care planning, a written plan, and continuity of care across different clinical settings.**
- n. Wherever possible, assessment, care and treatment of the mother should include the baby.**
- o. Where possible, health professionals providing care in the perinatal period should access training to improve their understanding of care for women with schizophrenia, bipolar disorder and borderline personality disorder.**

10.2 Use of pharmacological treatments

Approaches to the pharmacological prophylaxis and treatment of mental health conditions during the perinatal period do not generally differ from approaches at other times. However, a careful balance is required between the potential for harm to the fetus or breastfed infant and the potential harm to the woman, fetus or infant if the woman remains untreated. Therefore, medications should only be prescribed after careful deliberation with the woman (and her significant other[s]), with ongoing monitoring and evaluation.

It should be noted that the information on pharmacological treatments in this section is based on the best available evidence, up to September 2016 (the cut-off for the systematic literature review conducted for this Guideline). The evidence base is evolving as new research frequently emerges.

10.2.1 Quality of the evidence

The evidence on harm to the fetus from pharmacological treatments is of low to very low quality as it is beset by methodological limitations, the greatest being reliance on observational studies (as RCTs cannot be conducted on ethical grounds in pregnant women). Other limitations include: a lack of adequate comparison groups (e.g. an unmedicated depressed group); study samples being heterogeneous and underpowered; and significant risk of bias and imprecision in outcome measures.

10.2.2 Discussing risks and benefits

Whenever pharmacological treatment is prescribed to women who are planning a pregnancy, pregnant or breastfeeding, a risk/benefit analysis needs to be performed with consideration given to the risks for the mother as well as the risks to the fetus, and the risks to either of non-treatment.

PRACTICE POINT

- p. Discuss the potential risks and benefits of pharmacological treatment in each individual case with the woman and, where possible, her significant other(s).**

Discussion about the possible risks of mental health conditions or the benefits and harms of treatment in pregnancy and the postnatal period should include the following, depending on individual circumstances (NICE 2015):

- the likely benefits of each treatment, taking into account the severity of the mental health condition
- the woman's response to any previous treatment
- the background risk of harm to the woman and the fetus or baby associated with maternal mental health conditions and the risk to mental health and parenting associated with no treatment
- the possibility of the sudden onset or relapse of symptoms of mental health conditions in pregnancy and the postnatal period, particularly in the first few weeks after childbirth (e.g. in women with bipolar disorder)
- the risks or harms to the woman and the fetus or baby associated with each treatment option
- the need for prompt instigation of treatment and monitoring for treatment response because of the potential effect of an untreated mental health condition on the fetus or baby and woman's ability to transition optimally to the parenting role
- the risk of harm to the woman and the fetus or baby associated with stopping or changing a treatment
- the side effects of any medication taken by the woman (especially those that increase the risk of gestational diabetes due to weight gain).

PRACTICE POINT

- q. Ensure that women are aware of the risks of relapse associated with stopping medication and that, if a medication is ceased, this needs to be done gradually and with advice from a mental health professional.**

When discussing the benefits and risks of treatment with a woman and her significant other(s) (NICE 2015):

- acknowledge the woman's central role in reaching a decision about her treatment and that the role of the professional is to inform that decision with balanced and up-to-date information and advice
- use absolute risk values based on a common denominator (that is, numbers out of 100 or 1,000) rather than relative risk values to more accurately reflect risk to the woman
- acknowledge and describe, if possible, the uncertainty around any estimate of risk, harm or benefit
- use high-quality decision aids in a variety of numerical and pictorial formats that focus on a personalised view of the risks and benefits
- consider providing records of the consultation, in a variety of visual, verbal or audio formats, to the woman, her significant other(s) and other health professionals involved in her care.

10.2.3 Planning for breastfeeding

Breastfeeding should be discussed with women who may need pharmacological treatment in pregnancy or in the postnatal period (NICE 2015). This may include the benefits of breastfeeding, the potential risks associated with taking medication when breastfeeding and with stopping some medications in order to breastfeed.

PRACTICE POINT

- r. Discuss treatment (medication and psychological) options that would enable a woman to breastfeed if she wishes and support women who choose not to breastfeed.**

10.2.4 Pharmacological treatment during pregnancy

Information about specific mental health conditions and their pharmacological treatments is included in Chapters 11 to 13. This section provides guidance on specific considerations in the use and monitoring of effects of pharmacological treatments in pregnancy.

When pharmacological treatment is started in the perinatal period, considerations include (NICE 2015):

- seeking advice, preferably from a specialist in perinatal mental health
- choosing the medication with the lowest risk profile for the woman, fetus and baby, taking into account a woman's previous response to medication and changes in pharmacodynamics in pregnancy, which may necessitate dose adjustment
- using the lowest effective dose (this is particularly important when the risks of adverse effects to the woman, fetus and baby may be dose-related), but note that sub-therapeutic doses may lead to ineffective treatment of the mental health episode
- use a single drug, if possible, in preference to two or more drugs
- take into account that dosages may need to be adjusted in pregnancy.

PRACTICE POINT

- s. **Ideally, treatment with psychoactive medications during pregnancy would involve close liaison between a treating psychiatrist or, where appropriate, the woman's GP and her maternity care provider(s). In more complex cases, it is advisable to seek a second opinion from a perinatal psychiatrist.**

As there is a risk of major malformation associated with the use of some antipsychotics and anticonvulsants in the first trimester (see Chapter 12), it is important that the 18–20 week ultrasound is conducted so that major malformations may be identified. This enables women and their significant other(s) to consider their options (e.g. receive counselling regarding the option of termination) and plan for additional care if the pregnancy continues (e.g. specialist management of the pregnancy and the baby).

PRACTICE POINTS

- t. **When exposure to psychoactive medications has occurred in the first trimester – especially with anticonvulsant exposures – pay particular attention to the 18–20 week ultrasound due to the increased risk of major malformation.**
- u. **Plan for pharmacological review in the early postpartum period for woman who cease psychotropic medications during pregnancy.**

10.3 Postnatal care and support

10.3.1 Observation of the newborn

Due to the risk of poor neonatal adaptation syndrome associated with the use of some pharmacological treatments in pregnancy, monitoring of exposed newborns is required.

CONSENSUS-BASED RECOMMENDATION

- xiv. **Arrange observation of infants exposed to psychoactive medications in pregnancy for the first three days postpartum.**

10.3.2 Support in the early postnatal period

Some women may experience distress or symptoms of depression if they feel overwhelmed and unable to manage in the early postnatal period. If something has gone wrong or their expectations of the pregnancy and birth are not realised, women may also experience disappointment or grief. The early postnatal period is also the time when symptoms of postpartum psychosis emerge. Early intervention, in the form of support or specific care, can help women to adjust to these emotional changes and prevent more serious mental health conditions from developing.

Women with severe mental illness may find the early postnatal period particularly distressing for many reasons, particularly as their bond with the baby may be compromised. Ensuring partner, family or paid (e.g. nanny) support is important, particularly overnight so the woman can sleep. Sleep deprivation is a common trigger for relapse so prevention is worthwhile.

Women with borderline personality disorder are especially likely to have difficulties in the emotional care of the infant and will benefit from programs from early infancy to promote attachment, improve parenting sensitivity and reduce the risk of poor child outcomes (Newman 2015).

PRACTICE POINTS

- v. In planning postnatal care for women with schizophrenia, bipolar disorder, severe depression or borderline personality disorder, take a coordinated team approach to parent and infant mental health care and pre-arrange access to intensive maternal child health care.**
- w. When caring for mothers with severe mental illness, including borderline personality disorder, it is important to ensure that child protection risks are understood and addressed, if necessary.**

10.3.3 Women requiring hospital care in the postnatal period

The early postnatal period is a time when relapse of severe mental health conditions is common and when some women who have not previously had symptoms experience postpartum psychosis. When symptoms are severe enough to warrant hospital admission, co-admission with the baby will assist with the development of mothercraft skills and a positive relationship with the baby. This approach may not be appropriate for women who are severely unwell and incapable of caring for the baby and/or the safety of the baby may be compromised.

As the number of specialised mother-baby units in Australia is limited, health services should prioritise their establishment.

CONSENSUS-BASED RECOMMENDATION

- xv. If a mother with a severe postnatal episode requires hospital admission, avoid separation from her infant with co-admission to a specialist mother-baby unit where facilities are available and appropriate.**

11 Depressive and anxiety disorders

A range of psychosocial, psychological and pharmacological therapies have been evaluated for their effect in preventing and treating depressive and anxiety disorders in the perinatal period. This section summarises the current evidence on therapies that have been found to be effective.

11.1 Women at risk of depressive or anxiety disorders

Among psychosocial and psychological approaches to preventing depressive and anxiety disorders in the perinatal period that have been evaluated, many appear to have no preventive effect (low to high quality). Those that have shown some preventive effect are:

- psychoeducation that is informed by psychological principles and uses techniques from cognitive behavioural therapy (CBT) and interpersonal psychotherapy (IPT) (individual or face-to-face) (low quality; NICE 2015)
- mindfulness-based cognitive therapy among pregnant women with a history of severe depression who are not currently depressed (Dimidjian et al 2016).

11.2 Women with mild to moderate depression or anxiety

11.2.1 Psychosocial support

Psychoeducation

Structured psychoeducation improves depression symptoms among women in the perinatal period (high quality; NICE 2015).

EVIDENCE-BASED RECOMMENDATION

STRONG

4. Provide structured psychoeducation to women with symptoms of depression in the perinatal period.

Social support

Involvement in a social support group may improve depression symptoms among women in the postnatal period (low quality; NICE 2015).

EVIDENCE-BASED RECOMMENDATION

CONDITIONAL

5. Advise women with symptoms of depression in the postnatal period of the potential benefits of a social support group.

Physical activity

Among pregnant women with a diagnosis of depression, integrated yoga (with Tai Chi) may improve depression mean scores (very low quality; Gong et al 2015).

Among women in the postnatal period with symptoms of depression, physical activity (e.g. pram walking exercise program) may improve depression mean scores (very low quality; NICE 2015).

11.2.2 Psychological approaches

Individual structured psychological interventions

Individual structured psychological interventions (CBT or IPT) in the perinatal period reduce depression diagnosis (high quality) and depression mean scores (moderate quality) and may improve depression symptoms (low quality) among women with symptoms or a diagnosis of depression (NICE 2015).

EVIDENCE-BASED RECOMMENDATION

STRONG

6. Recommend individual structured psychological interventions (cognitive behavioural therapy or interpersonal psychotherapy) to women with mild to moderate depression in the perinatal period.

Facilitated self-help versus treatment as usual

Facilitated self-help based on cognitive behavioural principles and using a workbook or internet delivery with online or telephone support for women with symptoms of depression (NICE 2015):

- may improve anxiety symptoms during pregnancy (very low quality)
- improves depression mean scores in the postnatal period (high quality)
- may improve depression symptoms in both pregnancy and the postnatal period (very low quality).

CONSENSUS-BASED RECOMMENDATION

xvi. Advise women with symptoms of depression in the perinatal period of the potential benefits of facilitated self-help.

Directive counselling

Among women in the postnatal period with a diagnosis of depression, directive counselling – which includes supportive listening, problem-solving and goal setting – may improve depression and anxiety symptoms (low quality; NICE 2015).

EVIDENCE-BASED RECOMMENDATION

CONDITIONAL

7. Advise women with depression or anxiety disorder in the postnatal period of the possible benefits of directive counselling.

Post-traumatic birth counselling

Among women in the postnatal period with a diagnosis of post-traumatic stress disorder (PTSD), individual post-traumatic birth counselling may improve depression symptoms and PTSD mean scores (low quality; NICE 2015).

CONSENSUS-BASED RECOMMENDATION

xvii. Advise women with diagnosed post-traumatic stress disorder of the potential benefits of post-traumatic birth counselling if they are experiencing depressive symptoms.

Mother–infant relationship interventions versus treatment as usual or enhanced treatment as usual

Among women with depression, individual mother–infant interventions may improve mother–infant attachment problems (very low quality) and mother–infant behavior management problems (low quality; NICE 2015).

CONSENSUS-BASED RECOMMENDATION

xviii. For women who have or are recovering from postnatal depression and are experiencing mother–infant relationship difficulties, consider provision of or referral for individual mother–infant relationship interventions.

11.2.3 Complementary therapies

Omega-3 fatty acids

Omega-3 fatty acid supplements do not appear to improve depression symptoms (very low quality; NICE 2015). However, there is no evidence of harms to the fetus when they are taken during pregnancy, with risk of early preterm birth (<34 weeks) (moderate quality) and preterm birth (<37 weeks) slightly reduced (high quality; Kar et al 2016) and no association with increased risk of intrauterine growth restriction (moderate quality) (Saccone et al 2015). Taken during pregnancy and breastfeeding, these supplements did not reduce cognitive, language or motor development in the infant or child (Gould et al 2013). There was no evidence for an increased risk of postpartum haemorrhage in the studies assessed.

EVIDENCE-BASED RECOMMENDATION

CONDITIONAL

8. Advise women that omega-3 fatty acid supplementation does not appear to improve depression symptoms but is not harmful to the fetus or infant when taken during pregnancy or while breastfeeding.

St John's Wort

No evidence was identified on the effectiveness of St John's Wort in treating depression in the perinatal period and no conclusions on its safety could be drawn due to the inadequate quality of the evidence. St John's Wort is known to interact with SSRIs (increased serotonergic effects) and anticonvulsants (reduced blood levels) (TGA 2001).

CONSENSUS-BASED RECOMMENDATION

xix. Advise pregnant women that the evidence on potential harms to the fetus from St John's Wort is limited and uncertain and that use of this treatment during pregnancy is not recommended.

Ginkgo biloba

No evidence was identified on either the effectiveness of Ginkgo biloba in treating depression in the perinatal period or on potential harms to the fetus.

CONSENSUS-BASED RECOMMENDATION

xx. Advise pregnant women that potential harms to the fetus from Ginkgo biloba have not been researched, and that use of this treatment during pregnancy is not recommended.

Acupuncture

There is very low quality evidence that depression-specific acupuncture is more effective than non-depression-specific acupuncture in improving response to treatment (NICE 2015).

11.3 Women with moderate to severe depressive or anxiety disorder

For many women with moderate to severe anxiety or depressive disorders, the first-line treatment is likely to be pharmacological, with psychological therapies introduced once medication(s) have become effective.

11.3.1 Pharmacological treatments

Antidepressants during pregnancy

There is high quality RCT evidence of the efficacy of antidepressants in the treatment of depression and anxiety in the general population (NICE 2009; updated 2016). The evidence on their specific effectiveness in pregnancy is limited (but is not expected to be any different to that in the general population) and, while any increases in absolute risk of less optimal birth outcomes or harm to fetus are small, the quality of evidence is poor (see also Section 10.2.1).

Neonatal mortality

First trimester use of selective serotonin reuptake inhibitors (SSRIs) or tricyclic antidepressants (TCAs) does not appear to be associated with an increased risk of neonatal mortality (very low quality; Ban et al 2012).

Major or cardiac malformations

Use of SSRIs in the first trimester is not associated with major (Simon et al 2002; Ban et al 2014; Berard et al 2015) or cardiac (Margulis et al 2013; Ban et al 2014; Huybrechts et al 2014; Berard et al 2015; Furu et al 2015; Petersen et al 2016) malformations (very low quality). There does not appear to be an association between major malformation in the newborn and first trimester use of TCAs (very low quality; Simon et al 2002; Ramos et al 2008; Ban et al 2014) or venlafaxine (very low quality; Oberlander et al 2008a).

Small-for-gestational age

There does not appear to be an association between use of SSRIs at any time during pregnancy and the newborn being small for gestational age (low quality; Oberlander et al 2006).

Miscarriage and preterm birth

The risk of miscarriage is increased with use of SSRIs or SNRIs in the first 20 weeks of pregnancy and first trimester use of TCAs (low quality; Ban et al 2012; Almeida et al 2016). Assessment of the evidence on individual SSRIs found an association between increased risk of miscarriage and paroxetine (low quality) but not fluoxetine, sertraline or fluvoxamine (very low quality; Nakhai-Pour et al 2010). SSRI use in late pregnancy is associated with a slight increase in risk of preterm birth (low quality; Grzeskowiak et al 2012).

Neonatal outcomes

There are small increases in absolute risk associated with use of SSRIs for:

- convulsions in the newborn (low quality; Hayes et al 2012)
- persistent pulmonary hypertension in the newborn (low quality; Huybrechts et al 2015)
- respiratory distress or difficulty in the newborn (very low quality; Malm et al 2015)
- poor neonatal adaptation syndrome with use in the third trimester compared with use of SNRIs in the same period (very low quality; Kieviet et al 2015).

Childhood neurobehavioural outcomes

Maternal use of SRIs during pregnancy does not appear to be associated with reduced IQ or increased risk of behavioural problems in children aged 3–6 years (very low quality; Nulman et al 2015).

Maternal birth outcomes

Maternal use of SSRIs, SRIs and serotonin-norepinephrine reuptake inhibitor (SNRIs) at any time during pregnancy appears to be associated with increased risk of postpartum haemorrhage (inadequate to very low quality; Jiang et al 2016).

EVIDENCE-BASED RECOMMENDATION

CONDITIONAL

9. Consider the use of SSRIs as first-line treatment for moderate to severe depression and/or anxiety in pregnant women.

If SSRIs are prescribed, consider the woman's past response to SSRI treatment and whether she has risk factors for miscarriage (e.g. thyroid dysfunction) or preterm birth (e.g. previous preterm birth, active smoking during pregnancy), factors that may increase risk of postpartum haemorrhage and the half-life of the treatment (e.g. risk of poor neonatal adaptation syndrome is increased with SSRIs with a short half-life such as paroxetine).

PRACTICE POINT

- x. Before choosing a particular SSRI for pregnant women, consider the woman's past response to SSRI treatment, obstetric history (e.g. other risk factors for miscarriage or preterm birth) and any factors that may increase risk of adverse effects.

Antidepressants in the postnatal period

There is high quality evidence for efficacy of antidepressants in the general population (NICE 2009; updated 2016). Compared to placebo, treating postnatal depression with an SSRI is associated with good response and remission in a significant proportion of women at 6–8 weeks post-treatment. Effectiveness does not differ significantly between SSRIs and TCAs (Molyneaux et al 2014; NICE 2015).

Compared to fetal exposure during pregnancy, exposure to SSRIs and TCAs through breast milk is very low and there is an even greater need to treat depression postnatally (given its effect on the woman's ability to care for the infant and on mother–infant attachment).

EVIDENCE-BASED RECOMMENDATION

STRONG

10. Use SSRIs as first-line treatment for moderate to severe depression in postnatal women.

The effects of exposure to SSRIs may be increased in preterm or otherwise unwell infants.

PRACTICE POINT

- y. Before prescribing SSRIs to women who are breastfeeding, consider the infant's health and gestational age at birth.

Benzodiazepines and non-benzodiazepine hypnotics

Benzodiazepines are an accepted treatment for anxiety symptoms and panic attacks in the general population. There is evidence that their use in pregnancy is not associated with increased risk of major malformation in the newborn (very low quality; Oberlander et al 2008b). There is uncertainty about the association with other outcomes due to the inadequate quality of the evidence.

CONSENSUS-BASED RECOMMENDATION

xx. Consider the short-term use of benzodiazepines for treating moderate to severe symptoms of anxiety while awaiting onset of action of an SSRI or TCA in pregnant or postnatal women.

There is evidence of an increased risk of respiratory difficulty in the newborn following repeated late pregnancy exposure to long-acting benzodiazepines (very low quality; Wikner et al 2007). The risk of poor neonatal adaptation syndrome is increased with use of benzodiazepines with short-acting or long-acting benzodiazepines (due to accumulation).

PRACTICE POINT

z. Use caution in repeated prescription of long-acting benzodiazepines around the time of the birth.

There is a lack of evidence regarding potential harms to the fetus associated with the use of non-benzodiazepine hypnotics (z-drugs) in pregnant women.

PRACTICE POINT

aa. Use caution in prescribing non-benzodiazepine hypnotics (z-drugs) to pregnant women for insomnia.

Antihistamines

PRACTICE POINT

bb. Doxylamine, a Category A drug in pregnancy, may be considered for use as a first-line hypnotic in pregnant women who are experiencing moderate to severe insomnia.

11.3.2 Psychological interventions

The evidence on effective psychological therapies is summarised in Section 11.2.2.

CONSENSUS-BASED RECOMMENDATION

xxii. Advise women with moderate to severe anxiety and depressive disorders that psychological interventions are a useful adjunct, usually once medications have become effective.

12 Severe mental illnesses: schizophrenia, bipolar disorder and postpartum psychosis

This chapter provides guidance specific to schizophrenia, bipolar disorder and postpartum psychosis. It should be read in conjunction with the advice in Chapter 10, which includes general principles on prevention and treatment.

12.1 Preconception planning

Preconception planning should start at diagnosis of a severe mental illness among women of childbearing age. Many of these women will have poor health literacy and will need clear explanations of the importance of contraception if the woman is not planning a pregnancy, the effects of some medications on fertility, the risk of relapse in pregnancy or after the birth (particularly if medications are stopped) and the complexities of raising a child in the context of severe mental illness. These comments are particularly applicable to women with schizophrenia and more severe bipolar disorder.

Preconception planning should include discussion of pharmacological treatments to be used after the birth, which will involve decision-making by the woman about whether she will breastfeed (e.g. if it is planned that lithium be used postnatally).

12.2 Considerations in providing antenatal and postnatal care

12.2.1 Antenatal care

In addition to the general principles outlined in Chapter 10, key considerations in providing antenatal care to women with severe mental illness include:

- monitoring for early signs of relapse, particularly as medication is often ceased (by the woman and/or her doctor) before or during pregnancy
- education about nutrition and ceasing smoking, illicit substance use and alcohol intake in pregnancy
- monitoring for excessive weight gain and gestational diabetes in women taking antipsychotics, with consideration given to referral to an appropriate health professional if excessive weight gain is identified
- referral for multi-dimensional care planning early enough in the pregnancy (particularly if the pregnancy is unplanned) to build trusting relationships and develop a safety net for mother, baby and significant others.

12.2.2 Postnatal care

Careful monitoring is required in the first month after birth for women with severe mental illness, especially those with bipolar disorder, with regular review in the following months. Sleep preservation is an important consideration.

If relapse of severe mental illness occurs, co-admission to a mother and baby unit is recommended. In some instances, it may be necessary for women to cease breastfeeding if they are too unwell, require night-time sedation, or sleep disruption (to feed the infant) would have an adverse effect on their mental state.

Access to specialist intervention to support parenting skills, including the role of partners and significant others, and attend to the mother-infant attachment is a consideration for women with severe mental illness and their families. Such an approach can best be taken in specialist mother-baby units, however, availability of publicly funded mother-baby units that cater to both the woman and her baby is variable across Australian jurisdictions.

12.3 Psychosocial and psychological treatments

Psychoeducation and supportive therapy that includes family and significant others is most important for women with severe mental illness. CBT and other psychological interventions (see Section 11.2) can be beneficial in managing secondary depression or anxiety, which are frequently associated with severe mental illness.

12.4 Pharmacological therapies

12.4.1 Antipsychotics

Antenatal period

There is high quality RCT evidence of efficacy of antipsychotics in the general population (NICE 2014; NICE 2014; updated 2016) and it is important to appropriately treat antenatal psychosis. Compared to SSRIs, the evidence base for use of antipsychotics (as a class of drugs) in pregnancy is still very limited. Based on low to very low quality evidence, antipsychotics (as a whole) in pregnancy do not appear to be associated with adverse pregnancy or neonatal outcomes or birth defects (Lin et al 2010; Huybrechts et al 2016).

EVIDENCE-BASED RECOMMENDATION

CONDITIONAL

11. Consider the use of antipsychotics for treating psychotic symptoms in pregnant women.

The available evidence for specific antipsychotics, suggests that:

- first-trimester use of risperidone may be associated with an increase in absolute risk of major malformation and cardiac malformation (low quality; Huybrechts et al 2016)
- there may be an association between increased absolute risk of miscarriage and use of flupenthixol or quetiapine just prior to or during pregnancy (very low quality; Sorensen et al 2015).

Weight gain is associated with most antipsychotics, particularly olanzapine, in the general (non-pregnant) population and the use of such agents during pregnancy increases the risk of gestational diabetes (OR 2.32 [1.53 to 3.52]) (NICE 2015) with consequent negative impacts on the newborn (e.g. high birthweight) and the woman's reproductive health (e.g. increased risk of gestational diabetes in subsequent pregnancies).

CONSENSUS-BASED RECOMMENDATIONS

xxiii. Use caution when prescribing any antipsychotic to pregnant women, particularly for women with a propensity for weight gain and metabolic syndrome.

xxiv. If women commence or continue antipsychotic treatment during pregnancy, monitor them for excessive weight gain and the development of gestational diabetes and refer them for advice on weight management as required.

Clozapine crosses the placenta, which may increase the risk of agranulocytosis in the newborn (Mehta & Van Lieshout 2017).

CONSENSUS-BASED RECOMMENDATION

xxv. Do not initiate use of clozapine in pregnant women.

Postnatal period

The evidence on the safety of clozapine in breastfeeding women is limited.

PRACTICE POINT

cc. Use clozapine with caution in women who are breastfeeding and monitor the infant's white blood cell count weekly for the first six months of life.

12.4.2 Anticonvulsants

While anticonvulsants are used in the treatment of bipolar disorder in the general population (Malhi et al 2015), most of the information on their safety profile in pregnancy is in epileptic women.

Preconception

There is a risk of major malformation if conception occurs while a woman is taking anticonvulsants (Weston et al 2016). Several of these medications are folate antagonists.

PRACTICE POINTS

- dd. Given their teratogenicity, only consider prescribing anticonvulsants (especially valproate) to women of child-bearing age if effective contraception is in place.**
- ee. Once the decision to conceive is made, if the woman is on valproate wean her off this over 2–4 weeks, while adding in high-dose folic acid (5 mg/day) which should continue for the first trimester.**

Antenatal period

There is evidence of substantial increases in absolute risk of major malformation and cardiac malformation in the newborn (Weston et al 2016) and adverse cognitive outcomes in the child (e.g. increased risk of below average intelligence quotient [IQ]) (Bromley et al 2014) (very low to low quality) associated with the use of sodium valproate in pregnancy.

EVIDENCE-BASED RECOMMENDATION

STRONG

- 12. Do not prescribe sodium valproate to women of childbearing age.**

There is evidence that use of carbamazepine during pregnancy may be associated with an increased risk of major malformation in the newborn (very low quality; Weston et al 2016) and uncertainty about whether lamotrigine may also have an association with increased risk of birth defects.

CONSENSUS-BASED RECOMMENDATION

- xxvi. Use great caution in prescribing anticonvulsants as mood stabilisers for pregnant women and seek specialist psychiatric consultation when doing so.**

Postnatal period

Due to the need to treat symptoms in the postnatal period (i.e. due to their potential effect on the woman's ability to care for the infant and on mother–infant attachment), consideration may be given to prescribing anticonvulsants for bipolar disorder. There is uncertainty about the passage into breastmilk of some anticonvulsants (e.g. lamotrigine) and adverse effects in the infant.

CONSENSUS-BASED RECOMMENDATION

- xxvii. If anticonvulsants are prescribed to a woman who is breastfeeding, arrange close monitoring of the infant and specialist neonatologist consultation where possible.**

12.4.3 Lithium

Antenatal period

Maternal lithium requirements increase as pregnancy progresses, so monitoring of levels is advised and dose adjustment may be required. There is evidence that first trimester use of lithium in pregnancy may be associated with an increased risk of cardiac malformation in the newborn (very low quality; Diav-Citrin et al 2014).

CONSENSUS-BASED RECOMMENDATION

xxviii. If lithium is prescribed to pregnant women, ensure that maternal blood levels are closely monitored and that there is specialist psychiatric consultation.

There is a sudden increase in lithium level at parturition as the woman's fluid balance shifts and returns to pre-pregnancy levels.

PRACTICE POINT

ff. If lithium is prescribed to a pregnant woman, reduce the dose just prior to the onset of labour and aim to recommence treatment immediately after the birth at a pre-pregnancy dose.

Postnatal period

There is potential for high passage of lithium into breastmilk and risk of infant toxicity.

CONSENSUS-BASED RECOMMENDATION

xxix. Where possible, avoid the use of lithium in women who are breastfeeding.

13 Borderline personality disorder

Borderline personality disorder is a long-term, complex condition that waxes and wanes, has broad impact on socio-occupational function (especially parenting) and has substantial treatment and prognostic implications (NHMRC 2012). Borderline personality disorder often co-exists with depression, anxiety and substance use disorders. It can also be very difficult to differentiate borderline personality disorder from bipolar and post-traumatic stress disorders (NHMRC 2012). There is significant overlap between borderline personality disorder and bipolar disorder type 2 in terms of affective instability and impulsivity; however they remain distinct disorders (Henry et al 2001).

Borderline personality disorder is associated with high levels of morbidity and mortality (lifetime rates of approximately 70% for acts of self-injury, 80% for suicide attempts and 10% for suicide) (Kroger et al 2011). There is growing consensus that emotional dysregulation (also referred to as affective instability; see Section 1.2.3) is a core feature of borderline personality disorder, and was found to be the one DSM-III-R criterion distinguishing individuals with borderline personality disorder from those without (Clifton & Pilkonis 2007). Women with emotional dysregulation will find parenting very challenging (see Section 13.1.3). It is also clear that there are significant risks for children of women with borderline personality disorder of the inadvertent intergenerational transfer of mental health problems from mother to child (Eyden et al 2016).

The label 'borderline personality disorder' should be used with caution as it often has negative connotations (especially for health professionals) and may be associated with substantial stigma. Conversely, it is important to identify women with such a condition, as they, their family and treating health professionals will need additional resources and support over the perinatal period and beyond.

13.1 Considerations in providing antenatal and postnatal care

Women who have borderline personality disorder have often experienced sexual, physical or emotional abuse or neglect in childhood. In addition to emotional dysregulation, their behaviour is characterised by efforts to overcome their fear of abandonment; intense and unstable relationships; engaging in impulsive activities (e.g. substance use); talking about or engaging in self-harm and/or suicidal behaviours; inappropriate, intense anger or difficulty controlling anger; and transient, stress-related paranoid ideation or severe dissociative symptoms. These symptoms are particularly difficult to manage in the primary health care setting and the behaviours targeted at staff may make it difficult for health professionals to work optimally with them. Continuity of carer (the same person or small group of people) is likely to be helpful for women with this condition.

PRACTICE POINT

gg. For women with borderline personality disorder who have often experienced complex trauma, trauma-informed care and specific support for health professionals in dealing with challenging behaviours is a priority.

13.1.1 Preconception planning

While in Australia borderline personality disorder is becoming better recognised, formally diagnosed and discussed with women, many women with emotional dysregulation and/or their treating health professionals may not be aware that the diagnosis makes preconception planning challenging. A first step may be a diagnostic discussion when there is clarity that this approach is likely to be therapeutic.

Multidisciplinary care

As borderline personality disorder is associated with several adverse obstetric and neonatal outcomes (see Section 1.2.3), women with the disorder should be monitored closely by a multidisciplinary health care team before and during their pregnancies (Pare-Miron et al 2016). This approach would aim to optimise management of challenging symptoms and behaviours and address the frequency of comorbid substance misuse and other conditions.

Planning for support during and after pregnancy

Considerations in preconception planning include the woman's capacity for parenting, her support network and other support available in the antenatal period, the need for additional support and parenting interventions in the postnatal period (see Section 13.1.3) and treatment to assist in managing emotional dysregulation and preparing for pregnancy and parenting (see Section 13.2).

PRACTICE POINT

hh. Advise women with borderline personality disorder who are planning a pregnancy, of the additional challenges of parenting associated with their emotional dysregulation, and the importance of ongoing support during and after pregnancy.

13.1.2 Antenatal care

Health professionals involved in the antenatal care of women with borderline personality disorder should be aware that women who have experienced physical or sexual abuse or complex traumas may experience distress when touched (e.g. when vaginal examination is conducted), that birth may be anticipated as traumatic and that early or caesarean delivery is frequently requested. The woman's emotional dysregulation may cause distress for herself, her family and treating health professionals. A team approach for all health professionals involved in a woman's care, with good open regular communication, is likely to be beneficial to her care.

13.1.3 Postnatal care

The early postnatal period can be particularly distressing for women with borderline personality disorder as they may find normal infant crying intrusive and unsettling. Issues arising for women with borderline personality disorder in the perinatal period reflect possible unresolved early trauma (Newman 2015).

Women with borderline personality disorder are more likely to have difficulties in the emotional care of the infant and in promoting secure attachment (Newman 2015) (see Section 10.1.3). These mothers are also more likely than others to have experienced sexual trauma and exploitation in relationships and to be experiencing domestic violence (Newman 2015).

Intensive maternal and child health care (i.e. maternal and child health care for families requiring additional support) is advisable and targeted mother–infant therapy (individual or with a group of women with similar requirements for help with their emotional dysregulation) may be considered after other more acute symptoms are controlled. It is important to ensure that child protection risks are understood and addressed, if necessary.

13.2 Psychosocial support and psychological treatments

Psychological and psychosocial therapies are the preferred treatment for borderline personality disorder.

13.2.1 Psychological therapies

A range of structured psychological therapies have been evaluated in the treatment of borderline personality disorder in the general population (NHMRC 2012; Cristea et al 2017). These include CBT, IPT, dialectical behaviour therapy (DBT), mentalisation-based therapy (MBT), schema-focussed psychotherapy (SFT), systems training for emotional predictability and problem solving (STEPPS) and transference-focussed psychotherapy (TFP).

DBT is effective in treatment of borderline personality disorder, with effects including a decrease in inappropriate anger, a reduction in self-harm and an improvement in general functioning (Stoffers et al 2012). While other treatments have been less evaluated, overall findings support a substantial role for psychotherapy in treating borderline personality disorder.

In clinical trials, the duration of treatment for borderline personality disorder ranged from 13 weeks to several years (NHMRC 2012). In clinical practice, some therapies (e.g. DBT) are usually continued for substantially longer periods.

CONSENSUS-BASED RECOMMENDATION

xxx. Where possible and appropriate, provide women with borderline personality disorder with structured psychological therapies that are specifically designed for this condition and conducted by adequately trained and supervised health professionals.

13.2.2 Psychosocial support

While specialist psychological treatments are the preferred treatment for borderline personality disorder, these take time to have an effect and other more generic psychological approaches are also required so that women are assisted in managing their emotional dysregulation and are better prepared for pregnancy and early parenthood.

PRACTICE POINT

ii. Encourage pregnant or postnatal women with borderline personality disorder to undertake mindfulness and/or relaxation training to assist in managing their emotional dysregulation.

13.3 Pharmacological treatments

Overall, pharmacological treatments do not appear to be effective in altering the nature and course of borderline personality disorder (NHMRC 2012). However, they may be useful in the short-term in controlling more acute symptoms.

CONSENSUS-BASED RECOMMENDATION

xxi. As far as possible, do not use pharmacological treatments as the primary therapy for borderline personality disorder, especially in pregnant women.

The risks associated with the use of pharmacological treatments in the perinatal period is discussed in Sections 10.2 (general principles), 11.3.1 (antidepressants and benzodiazepines) and 12.3 (mood stabilisers and antipsychotics). In addition to these risks, if a pharmacological treatment is prescribed to a woman with borderline personality disorder, consideration should be given to avoiding medications that may be lethal in overdose (because of the high risk of suicide) or are associated with substance dependence.

14 Electroconvulsive therapy

Electroconvulsive therapy (ECT) is a safe and effective treatment for the more severe forms of depression¹⁰. In practice, it is usually reserved for people who have not responded to several trials of medication. ECT is recommended as first-line treatment in severe melancholic depression, particularly when the patient refuses to eat or drink and/or there is a high suicide risk, when the patient has very high levels of distress, has psychotic depression, catatonia or has previously responded to ECT (Malhi et al 2015). It may also be considered in the treatment of mania, severe mixed episodes of bipolar disorder and psychosis.

CONSENSUS-BASED RECOMMENDATION

- xxxii. Consider ECT when a postnatal woman with severe depression has not responded to one or more trials of antidepressants of adequate dose and duration.**
- xxxiii. Consider ECT as first-line treatment for postnatal women with severe depression especially where there is a high risk of suicide or high level of distress; when food or fluid intake is poor; and in the presence of psychotic or melancholic symptoms.**

ECT may be prescribed by a perinatal psychiatrist for pregnant women who meet the criteria above. Specific considerations include the risk of induction of premature labour associated with ECT and the risk of reduced fetal heart rate associated with maternal anaesthesia (Lakshmana et al 2014).

For pregnant women, cardiotocography is required pre-ECT, during ECT and in recovery and should be monitored by an expert health professional who can deliver the baby if necessary. For women in the third trimester, advice on obstetric anaesthesia is required.

In all situations, it is essential to have care plans and clear communication about ECT between obstetric care providers and the woman's psychiatrist.

PRACTICE POINT

- jj. In pregnant women, ECT should be only be undertaken in conjunction with close fetal monitoring (using cardiotocography to monitor fetal heart rate) and access to specialist maternal-fetal medical support.**

A decision to prescribe ECT must involve obtaining informed consent from the woman and her significant carer(s) where possible (Lakshmana et al 2014). Involving carers and families is critical in situations where the woman is clinically unable to provide informed consent due to her psychiatric condition. This decision must weigh up risks associated with ECT (e.g. short-term memory loss), the risks of not undertaking ECT and maintaining status quo and the risks of alternative treatments for the woman and, if ECT is conducted during pregnancy, the fetus and pregnancy. This process needs to be documented as per consent guidelines of the hospital/health service.

10. The use of ECT is regulated through the Mental Health Act in each jurisdiction.

15 Practice summary – prevention and treatment

General principles in prevention and treatment of mental health conditions in the perinatal period

Action	For whom	Comments
Provide psychoeducation	All women	Mental health problems are common in the perinatal period and can be treated
Involve significant other(s)	All women	Provide information and involve in discussions about the woman's emotional wellbeing and care
Preconception planning	Women of childbearing age with new, existing or past severe mental health condition	Risk of relapse is substantial in pregnancy and especially in the early postnatal period
Liaise with other health professionals involved in a woman's care	Women who would benefit from pharmacological treatment during pregnancy	This involves clear communication between professionals providing antenatal and maternity care and treating psychiatrists and psychologists. In more complex cases, seek advice from a perinatal psychiatrist
Discuss risks and benefits of medications	Women being prescribed/considering medications in the perinatal period	Where possible, involve significant other(s). Describe absolute risk (i.e. X in 1,000) when discussing risk of birth defects above the risk in the general population.
Discuss risk of relapse	Women on regular medication who fall pregnant and then consider medication cessation	Risk is high if medications are ceased and this needs to be done slowly and with advice from a psychiatrist or GP
Plan for breastfeeding where feasible	Women who will need pharmacological treatment during the postnatal period	Examine the best treatment options for a woman who wishes to breastfeed
Offer and facilitate the 18–20 week ultrasound	Women exposed to lithium, anticonvulsants and antipsychotics	Identifies malformations and enables women and significant other(s) to consider options and plan for additional care
Arrange appropriate observation of the newborn	Mothers of infants exposed to any psychotropic medication in pregnancy	Poor neonatal adaptation syndrome is associated with the use of some psychotropic treatments in pregnancy
Arrange co-admission of mother and baby to a mother-baby unit, where possible	Women with a severe postnatal episode	Assists with monitoring safety of the infant, the development of mothercraft skills and a positive relationship with the baby
Take a team approach	Health professionals involved in care of women with severe mental illness	Clear communication and continuity of care and carer across clinical settings is needed
Undertake training	Perinatal health professionals involved in care of women with severe mental illness	Improves understanding of care for women with severe mental illness

Psychosocial and psychological therapies

Lifestyle and psychosocial support	For whom	Comments
Healthy diet and regular, suitable physical activity	All women	Good nutrition and physical activity are associated with emotional wellbeing
Psychologically informed psychoeducation	Women with symptoms of depression and/or anxiety	Structured education (often in groups) on preparation for childbirth, practical aspects of childcare and mental health
Social support group	Women with symptoms of depression and/or anxiety	Enables mutual support by bringing women into contact with other women who are having similar experiences
Mindfulness or relaxation training	Women with borderline personality disorder	Assists in managing emotional dysregulation
Enhanced maternal and child health care	Women with borderline personality disorder	The early postnatal period can be particularly distressing, with difficulties in care and emotional parenting of the infant

Psychological therapy	For whom	Comments
Structured psychological interventions	Women with mild to moderate depression	CBT or IPT provided to individuals by a trained health professional
	Women with moderate to severe depression	As an adjunct once medications have become effective
	Women with severe mental illness	CBT can be beneficial in managing secondary depression or anxiety
	Women with borderline personality disorder	Interventions specifically designed for borderline personality disorder
Facilitated self-help	Women with symptoms of mild to moderate depression	Based on cognitive behavioural principles – workbook or internet delivery with online or telephone support
Directive counselling	Women with mild to moderate depression or anxiety disorder	Involves supportive listening, problem-solving and goal setting
Post-traumatic birth counseling	Women who experience traumatic birth and have depression symptoms or PTSD	Involves explaining what happened during birth; giving women an option to discuss labour, birth, and post-birth experiences; answering any questions
Mother-infant interventions	Women with postnatal depression experiencing mother–infant difficulties	Involves observation of mother–infant interactions, feedback, modelling and cognitive restructuring
	Women with severe mental illness, borderline personality disorder	Provided individually or to groups of women with similar requirements

Complementary therapies	For whom	Comments
Complementary therapies (e.g. omega 3 fatty acids, St John's Wort)	Women who enquire about complementary therapies	Omega-3 fatty acids may be used in pregnancy but not as sole treatment for depression. St John's Wort and Gingko biloba are not recommended.

Increase in absolute risk of adverse outcomes associated with pharmacotherapy during pregnancy

Outcome	Medication	Increase in absolute risk	Timing
Antidepressants and anxiolytics			
Miscarriage	SSRIs	From 81 to 109 per 1,000	First 20 weeks
	SNRIs	From 81 to 138 per 1,000	
	TCAs	From 81 to 107 per 1,000	First trimester
Preterm birth	SSRIs	From 60 to 161 per 1,000	Late pregnancy
Neonatal convulsions	SSRIs	From 3 to 4 per 1,000 (1 prescription filled) From 3 to 15 per 1,000 (3 prescriptions filled)	3rd trimester
Persistent pulmonary hypertension	SSRIs	From 3 to 4 per 1,000	Late pregnancy
Respiratory distress or difficulty	SSRIs	From 32 to 45 per 1,000	During pregnancy
	Benzodiazepines	From 32 to 72 per 1,000	Late pregnancy
Antipsychotics			
Major malformation	Risperidone	From 33 to 42 per 1,000	First trimester
Cardiac malformation	Risperidone	From 15 to 25 per 1,000	First trimester
Miscarriage	Flupenthixol	From 136 to 211 per 1,000	During or just prior to pregnancy
	Quetiapine	From 136 to 224 per 1,000	
Anticonvulsants			
Major malformation	Sodium valproate	From 28 to 88 per 1,000	During pregnancy
	Carbamazepine	From 28 to 42 per 1,000	
Cardiac malformation	Sodium valproate	From 6 to 29 per 1,000	During pregnancy
Lithium			
Cardiac malformation	Lithium	From 6 to 29 per 1,000	During pregnancy

Therapeutic Goods Administration categorisation of medicines

Category	
A	Medicines which have been taken by a large number of pregnant women and women of childbearing age without any proven increase in the frequency of malformations or other direct or indirect harmful effects on the fetus having been observed.
B1	Medicines which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed. Studies in animals have not shown evidence of an increased occurrence of fetal damage.
B2	Medicines which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed. Studies in animals are inadequate or may be lacking, but available data shows no evidence of an increased occurrence of fetal damage.
B3	Medicines which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed. Studies in animals have shown evidence of an increased occurrence of fetal damage, the significance of which is considered uncertain in humans.
C	Medicines which, owing to their pharmacological effects, have caused or may be suspected of causing, harmful effects on the human fetus or neonate without causing malformations. These effects may be reversible. Accompanying texts should be consulted for further details.
D	Medicines which have caused, are suspected to have caused or may be expected to cause, an increased incidence of human fetal malformations or irreversible damage. These medicines may also have adverse pharmacological effects. Accompanying texts should be consulted for further details.
X	Medicines which have such a high risk of causing permanent damage to the fetus that they should not be used in pregnancy or when there is a possibility of pregnancy.

Part D – Areas for future research



Since the 2011 Australian clinical practice guideline (*beyondblue* 2011) there have been considerable advances in research and innovation. While much of this new research was captured by the systematic review conducted for this Guideline and informed recommendations, research in emerging areas is ongoing and has not yet been published. This includes:

- exploration of digital approaches to screening – these include a standalone digital platform for screening and automated reporting across primary, maternity and postnatal settings, which will facilitate reporting at national, state and local levels; an electronic model of assessment integrated into existing maternity sector databases; and web-based applications for self-assessment of psychosocial risk and possible depression
- development of electronic information for consumers and carers by a range of organisations, with many of these linked to the Australian Government mental health portal, Head to Health
- internet-based interventions specific to mental health in the perinatal period
- electronic referral pathways, which have the potential to benefit consumers through better coordinated care and health professionals through improved two-way communication, resulting in fewer errors and greater administrative efficiency.

It is anticipated that this research will inform future iterations of this Guideline. The following section highlights potential areas for future development to support the sustainable and measurable implementation of best practice.

Areas for further research identified through public consultation process

- Models of maternity care to determine the most effective ways to prevent and manage perinatal mental health conditions
- Effectiveness and cost-effectiveness of screening programs (including e-screening)
- Integrated approaches to screening/inquiry regarding women's mental health, experience of intimate partner violence and other social health issues
- Effectiveness of screening and service models for women experiencing intimate partner violence/family violence
- Tailoring of screening/inquiry and first line responses for Aboriginal women and women of refugee and migrant backgrounds to ensure that approaches are culturally safe, relevant and effective for these communities, and most importantly, to ensure that programs do not contribute to further trauma or harm for women and children
- The benefits of more frequent and staged maternal mental health surveillance in the early years of parenting (e.g. at 3, 6, 12 and 18 months and again at 4 years postpartum)
- Impact of including child outcomes on cost-effectiveness models
- Effective screening, interventions and support for perinatal mental health problems among men, including consideration of changing gender roles
- Couple and family-based interventions for perinatal mental health problems.

Appendices



A Membership of the expert working group and subcommittees

Membership of the Expert Working Group

Representative	Expertise	Organisation Representing	Representative	Expertise
Prof Marie-Paule Austin (Chair)	Perinatal Psychiatrist, Former Chair <i>beyondblue</i> Clinical Guideline, researcher and clinician working across private and public perinatal settings	Royal Australian and New Zealand College of Psychiatrists (RANZCP)	University of New South Wales, St John of God Healthcare, Royal Hospital for Women, Black Dog Institute	Sydney, NSW
Dr Nicole Highet (Co-chair)	Executive Director (COPE), former Co-Chair & Director <i>beyondblue</i> Clinical Guideline, online training programs & resources. Expertise in consumer/carer research, advocacy, policy & implementation.	Centre of Perinatal Excellence (COPE) (Guideline developer)	Centre of Perinatal Excellence (COPE)	Melbourne, VIC
Dr James Best	General Practitioner	Royal Australian College of General Practitioners (RACGP)	GPMaroubra	Mabroubra, NSW
Mr Andrew Davis	Carer Representative and volunteer at PANDA	Carer Representative	None	Melbourne, VIC
Ms Suzanne Higgins	Credentialed Mental Health Nurse with additional qualifications in midwifery, maternal and child health and perinatal and infant mental health. Clinical and management experience in Perinatal and Infant Mental Health service delivery.	Australian College of Mental Health Nurses (ACMHN)	St John of God Healthcare	Geelong, VIC
Dr Helen Lindner	Health psychologist and former member of the EWG for <i>beyondblue</i> perinatal guideline	Australian Psychological Society (APS)	Australian Psychological Society (APS)	Melbourne, VIC
Prof Rhonda Marriott	Midwife, researcher and specialist in Aboriginal and Torres Strait Islander perinatal mental health	Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM)	Murdoch University	Perth, WA

Representative	Expertise	Organisation Representing	Institutional Affiliation(s)	Location
Ms Creina Mitchell	Clinician, researcher and educator in maternal and child health with expertise and interest in perinatal mental health	Maternal & Child Family Health Australia	Griffith University	Brisbane, QLD
Ms Jenni Richardson	National Helpline and Programs manager and consumer advocate for mental health and suicide prevention	Consumer representative Perinatal Anxiety and Depression Association (PANDA)	Perinatal Anxiety and Depression Association (PANDA)	Fitzroy, VIC
Dr Vijay Roach	Obstetrician with dedicated expertise in perinatal mental health. Chair of the Gidget Foundation Australia (perinatal mental health support organisation) and carer.	Royal Australian College of Obstetricians and Gynaecologists (RANZCOG)	Royal North Shore Hospital	Sydney, NSW
Ms Terri Smith (from 28 April 2017)	CEO, Perinatal Anxiety and Depression Australia (PANDA)	CEO, Perinatal Anxiety and Depression Australia (PANDA)	Perinatal Anxiety and Depression Australia (PANDA)	Fitzroy, VIC
Dr Jan Taylor	Register midwife, midwifery academic with expertise in perinatal mental health. Former member of the <i>beyondblue</i> EWG.	Australian College of Midwives (ACM)	University of Canberra	Canberra, ACT

We would also like to acknowledge the contribution of the proxy representatives in the development of the Guideline.

- Dr Anne Sved Williams (proxy for Professor Marie-Paule Austin)
- Julie Ferguson (proxy for Ms Suzanne Higgins)
- Dr Louise Roufiele (proxy for Dr Helen Lindner)
- Dr Agnes Wilson (proxy for Dr Vijay Roach)
- Dr Catherine Chamberlain (proxy for Professor Rhonda Marriott)

Membership of the Harms Expert Subcommittee

Representative	Expertise	Institutional Affiliation	Location
Prof Marie-Paule Austin (Chair)	Chair Perinatal Mental Health Unit, Professorial Fellow and Consultant Psychiatrist	University of New South Wales, Black Dog Institute	Sydney, NSW
Prof Phillip Boyce	Professor of Psychiatry, Perinatal Psychiatrist	University of Sydney and Westmead Hospital	Wentworthville, NSW
Prof Megan Gallbally	Foundation Chair in Perinatal Psychiatry & Perinatal Psychiatrist	University of Notre Dame, Fiona Stanley Hospital	Perth, WA
Dr Debra Kennedy	Director, Mothersafe	Royal Hospital for Women	Sydney, NSW
Dr Tram Nguyen	Consultant Psychiatrist, Centre for Women's Mental Health	The Royal Women's Hospital	Melbourne, VIC
Dr Anne Sved-Williams	Perinatal Psychiatrist Head, Medical Unit	Helen Mayo House Family Unit	Glenside, SA

Membership of the Borderline Personality Disorder and Schizophrenia Subcommittee

Representative	Expertise	Institutional Affiliation	Location
Prof Marie-Paule Austin (Chair)	Chair Perinatal Mental Health Unit, Professorial Fellow and Consultant Psychiatrist	University of New South Wales, Black Dog Institute	Sydney, NSW
Prof Phillip Boyce	Perinatal Psychiatrist & Professor of Psychiatry	University of Sydney and Westmead Hospital	Wentworthville, NSW
Prof Anne Buist	Perinatal Psychiatrist & Director, North-East Women's Mental Health Parent Infant Program	Austin Hospital and University of Melbourne	Heidelberg West, VIC
Dr Sylvia Lim-Gibson	Perinatal Psychiatrist and Conjoint Senior Lecturer UNSW	Royal Hospital for Women and University of New South Wales	NSW
Dr Tram Nguyen	Consultant Psychiatrist, Centre for Women's Mental Health	The Royal Women's Hospital	Melbourne, VIC
Prof Louise Newman	Director, Centre of Women's Mental Health	The Royal Women's Hospital	Melbourne, VIC
Dr Anne Sved-Williams	Perinatal Psychiatrist Head, Medical Unit	Helen Mayo House Family Unit	Glenside, SA

Guideline development team

Guideline developer – COPE

Dr Nicole Highet, Founder & Executive Director

Systematic literature review – Hereco health research consulting

Dr Sarah Norris

Dr Kristina Harvey

Dr Sue Campbell

Dr Jennifer Ring

Ms Sherin Chikhani

Ms Rosie Wade

Technical writing – Ampersand Health Science Writing

Ms Jenny Ramson

B Administrative report

The development of this Guideline has followed the key principles and processes outlined in Procedures and Requirements for Meeting the 2011 NHMRC Standard for Clinical Practice Guidelines (NHMRC 2011) and the [2016 NHMRC Standards for Guidelines](#).

B1 Scope and purpose

Objective

Health intents

The Guideline aims to guide health professionals in the identification of the more common mental health conditions (depression and anxiety) and the prevention and treatment of these conditions through a range of treatment approaches that includes psychosocial and psychological therapies, pharmacological, complementary and physical therapies.

In addition, the Guideline addresses the management of low prevalence, more severe mental illnesses – namely schizophrenia, bipolar disorder, postpartum psychosis, and borderline personality disorder. For each of these conditions the Guideline provides guidance in the provision of psychosocial and psychological therapies, pharmacological and physical therapies.

Expected benefits/outcomes

The Guideline aims to:

- identify current and effective tools for the detection of women most at risk of perinatal mental health conditions (psychosocial assessment) as well as those experiencing symptoms of the more common conditions (screening tools)
- assess the evidence for interventions used in managing mental health disorders, with a focus on the impact of exposure of the fetus to systemically active treatments (i.e., medications, complementary therapies and some physical therapies).

It is intended that this will inform local, state and national policy surrounding the timely implementation of appropriate tools to ensure early identification of womens' needs and timely, safe (for mother and baby) and effective intervention. Early detection and management of perinatal mental health conditions will have significant health and economic benefits for the woman, her family and the broader community.

Target population

The target population for the Guideline is women who are pregnant or in the first postnatal year.

Questions

The clinical research questions in this Guideline update are grouped under five headings, with each defined as follows:

- **Psychosocial assessment:** use of multidimensional validated tools/instruments to identify factors related to an individual woman that might place her at higher risk of susceptibility to a perinatal mental health condition
- **Screening:** use of validated tools/instruments for the detection of signs or symptoms of a perinatal mental health condition (but not a formal diagnosis)
- **Prevention:** an intervention in the ante- or postnatal period delivered with the purpose of reducing the development of a mental health condition in a woman not previously diagnosed.
- **Treatment:** intervention in the ante- or post-natal period delivered with the purpose of reducing the impact of a mental health condition in a woman with a diagnosis of that condition.
- **Harms:** adverse effects on the fetus or breast-feeding infant of an intervention delivered to the mother in the ante- or post-natal period, respectively,

The clinical research questions are summarised in the table below. As shown in the table, some questions were addressed via the systematic review (SR), others by narrative or descriptive review.

Table B.1: Clinical research questions

Psychosocial assessment	
Main question	What is the most appropriate method for psychosocial assessment of women at risk of mental health problems in the perinatal period?
Sub-questions	<p>What is the performance (defined as reliability, validity and predictive accuracy) of validated multidimensional tools for perinatal psychosocial assessment? [addressed via systematic review]</p> <p>What are the non-technical characteristics (defined as number of items, time to administer, complexity of scoring, training requirements, and available languages) of validated multidimensional tools for perinatal psychosocial assessment? [addressed via descriptive review]</p> <p>What is the acceptability to pregnant or post-partum women, health professionals, and the general public of validated multidimensional tools for perinatal psychosocial assessment? [addressed via narrative review]</p> <p>What is the effectiveness (defined as impact on detection, care sought or received, and mental health outcomes) of perinatal psychosocial assessment with validated multidimensional tools? [addressed via narrative review]</p> <p>What are the implications (for resourcing, workforce, and models of care) of implementing perinatal psychosocial assessment (via different modes of delivery) with a validated multidimensional tool? [addressed via narrative review]</p>
Depression screening	
Main question	What is the most appropriate method for screening women for depression in the perinatal period?
Sub-questions	<p>What is the performance (defined as reliability, sensitivity, specificity, positive likelihood ratio, and negative likelihood ratio) of validated tools for perinatal depression screening? [addressed via systematic review]</p> <p>What are the non-technical characteristics (defined as number of items, time to administer, complexity of scoring, training requirements, and available languages) of validated tools for perinatal depression screening? [addressed via descriptive review]</p> <p>What is the acceptability to pregnant or post-partum women, health professionals, and the general public of screening for perinatal depression? [addressed via narrative review]</p> <p>What is the effectiveness (defined as impact on detection, care sought or received, and mental health outcomes) of screening for perinatal depression? [addressed via narrative review]</p> <p>What are the implications (for resourcing, workforce, and models of care) of implementing perinatal depression screening (via different modes of delivery) with a validated tool? [addressed via narrative review]</p>

Anxiety screening

Main question	What is the most appropriate method for screening women for anxiety in the perinatal period?
Sub-questions	<p>What is the performance (defined as reliability, sensitivity, specificity, positive likelihood ratio, and negative likelihood ratio) of validated tools for perinatal anxiety screening? [addressed via systematic review]</p> <p>What are the non-technical characteristics (defined as number of items, time to administer, complexity of scoring, training requirements, and available languages) of validated tools for perinatal anxiety screening? [addressed via descriptive review]</p> <p>What is the acceptability to pregnant or post-partum women, health professionals, and the general public of screening for perinatal anxiety? [addressed via narrative review]</p> <p>What is the effectiveness (defined as impact on detection, care sought or received, and mental health outcomes) of screening for perinatal anxiety? [addressed via narrative review]</p> <p>What are the implications (for resourcing, workforce, and models of care) of implementing perinatal anxiety screening (via different modes of delivery) with a validated tool? [addressed via narrative review]</p>

Treatment interventions

Main question	What is the efficacy and safety of interventions for the treatment of mental health problems in women in the antenatal or postnatal period?
Sub-questions	<p>What is the efficacy and safety of psychosocial interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review]</p> <p>What is the efficacy and safety of psychological interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review]</p> <p>What is the efficacy and safety of online interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review]</p> <p>What is the efficacy and safety of pharmacological interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review]</p> <p>What is the efficacy and safety of complementary interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review]</p> <p>What is the efficacy and safety of physical interventions for the treatment of mental health problems in women in the antenatal or postnatal period? [addressed via systematic review]</p>

Prevention interventions

Main question	What is the efficacy and safety of interventions for the prevention of mental health problems in women in identified as being at risk of developing a mental health problem in the antenatal or postnatal period?
Sub-questions	<p>What is the efficacy and safety of psychosocial interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review]</p> <p>What is the efficacy and safety of psychological interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review]</p> <p>What is the efficacy and safety of online interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review]</p> <p>What is the efficacy and safety of pharmacological interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review]</p> <p>What is the efficacy and safety of complementary interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review]</p> <p>What is the efficacy and safety of physical interventions for the prevention of mental health problems in women identified as being at risk of developing a mental health problem in the antenatal or postnatal period? [addressed via systematic review]</p>

Harms: Pharmacological intervention

Main question	What are the harms that occur as a result of perinatal exposure to pharmacological interventions used for the treatment of mental health problems?
Sub-questions	<p>What are the harms that occur to the fetus as a result of perinatal exposure to pharmacological interventions used for the treatment of mental health problems? [malformations; addressed via systematic review]</p> <p>What are the harms that occur to the infant as a result of perinatal exposure to pharmacological interventions used for the treatment of mental health problems? [pregnancy and birth outcomes]</p> <p>What are the harms that occur to the child as a result of perinatal exposure to pharmacological interventions used for the treatment of mental health problems? [neurodevelopmental outcomes]</p> <p>What are the harms that occur to the mother as a result of perinatal exposure to pharmacological interventions used for the treatment of mental health problems? [postpartum haemorrhage]</p>

Harms: complementary intervention

Main question What are the harms that occur as a result of perinatal exposure to a complementary interventions used for the treatment of mental health problems?

Sub-questions

What are the harms that occur to the fetus as a result of perinatal exposure to complementary interventions used for the treatment of mental health problems? [malformations; addressed via systematic review]

What are the harms that occur to the infant as a result of perinatal exposure to complementary interventions used for the treatment of mental health problems? [pregnancy and birth outcomes; addressed via systematic review]

What are the harms that occur to the child as a result of perinatal exposure to complementary interventions used for the treatment of mental health problems? [neurodevelopmental outcomes; addressed via systematic review]

What are the harms that occur to the mother as a result of perinatal exposure to complementary interventions used for the treatment of mental health problems? [postpartum haemorrhage; addressed via systematic review]

Harms: Physical intervention

Main question What are the harms that occur as a result of perinatal exposure to physical interventions used for the treatment of mental health problems?

Sub-questions

What are the harms that occur to the fetus as a result of perinatal exposure to physical interventions used for the treatment of mental health problems? [malformations; addressed via systematic review]

What are the harms that occur to the infant as a result of perinatal exposure to physical interventions used for the treatment of mental health problems? [pregnancy and birth outcomes]

What are the harms that occur to the child as a result of perinatal exposure to physical interventions used for the treatment of mental health problems? [neurodevelopmental outcomes]

What are the harms that occur to the mother as a result of perinatal exposure to physical interventions used for the treatment of mental health problems? [postpartum haemorrhage; addressed via systematic review]

Population

The Guideline applies to pregnant or postnatal women, with the postnatal period being defined as the 12 months following birth. Specifically, the investigations/ interventions of interest are assessed in the following populations:

- psychosocial assessment – all pregnant or postnatal women
- screening – all pregnant or postnatal women not already referred for mental health assessment
- psychosocial, psychological, physical, pharmacological and complementary interventions - pregnant or postnatal women who have an existing mental health disorder, or are considered to be at risk of developing a mental health disorder.

As the guideline also provides an assessment of the harms associated with interventions, the population also encompasses the fetus, infant or child.

Attention is also given to women with a history of mental health issues who might be planning a pregnancy.

B2 Stakeholder involvement

Group membership

On commissioning of this Guideline, the Executive Director of COPE wrote to all company members, inviting their respective organisation to nominate a representative for the EWG. In doing so, each organisation was asked to consider representatives with expertise in the area of perinatal mental health.

Company members are as follows:

- Australian College of Mental Health Nurses (ACMHN)
- Australian College of Midwives (ACM)
- Australian Psychological Society (APS)
- Maternal Child and Family Health Nursing Association (MCAfNA)
- Perinatal Anxiety and Depression Australia (PANDA)
- Royal Australian College of General Practitioners (RACGP)
- Royal Australian New Zealand College of Obstetricians and Gynaecologists (RANZCOG)
- Royal Australian and New Zealand College of Psychiatrists (RANZCP)
- The Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM)

Formation of the Expert Working Group

The nominated members assigned to the EWG from their respective affiliations are detailed in Appendix A.

Target population preferences and views

Capturing consumer perspectives

The establishment of the EWG with dedicated consumer and carer representation was considered fundamental to the inclusion of consumer and carer perspectives in the development of this Guideline. In particular the appointment of representatives from Australia's peak perinatal consumer body (PANDA) ensured that the perspectives of many consumers were included at the EWG level. It is also noted that a number of representatives brought to the table expertise and insights from the lived experience of perinatal mental health.

In addition, the perspectives of consumers and carers were sought through the consultation process, whereby organisations and EWG representatives with access to consumers promoted the consultation process.

Capturing perspectives of specific groups

Aboriginal and Torres Strait Islander perspectives were captured through the inclusion of an EWG representative from Aboriginal and Torres Strait Islander background, who was also a health professional with a specialist background in perinatal mental health. As with all other members of the EWG, the representative was nominated on behalf of a specific organisation (Congress of Aboriginal and Torres Strait Islander Nurses and Midwives; CATSINaM).

Target users

The Guideline is intended for all health professionals caring for women and families during the perinatal period. This includes but is not limited to midwives, general practitioners (GPs), obstetricians, neonatologists, paediatricians, maternal and child health nurses,¹¹ paediatric nurses, Aboriginal and Torres Strait Islander health workers, allied health professionals, mental health practitioners (psychologists, psychiatrists, mental health nurses, perinatal and infant mental health professionals), consumers and carers and those working with families in the community (e.g. social workers, child protection agencies), hospital and legal systems.

The Guideline will be used by each of the professional groups in accordance with their role in the management of perinatal health. For example, those involved at the front-end of maternity care provision (GPs, midwives and obstetricians) will be informed about best practice screening and assessment tools to identify and respond to identified mental health problems in pregnancy. Professionals involved in the provision of treatment for mental health conditions (psychiatrists, psychologists, GPs) will likely refer to the information surrounding safe and effective treatments for perinatal mental health conditions. Consumers and carers will also refer to the Guideline to obtain information about the assessment of risk and symptom detection, as well recommended safe and effective treatments for perinatal mental conditions.

11. Also referred to as child and family health nurses in some jurisdictions.

B3 Rigour of development

Search methods

Searches were conducted in the MEDLINE, Embase and PsychINFO databases, and also in CINAHL for psychosocial assessment and screening (via the OVID and/or Embase.com interfaces), various databases of the Cochrane Library, and included examination of the reference lists of included SRs and individual studies. Searches were conducted between June 2016 and April 2017.

The full search strategy is outlined in Appendix A to the Technical Report, which is available on the COPE website.

Evidence selection criteria

The main inclusion/exclusion criteria for each of the research question types were as follows. More detailed PICO (Population, Intervention, Comparator, Outcomes) criteria used to inform the literature search are included in more detail in the Technical Report Part B (pp 3–5; PICO p8, 10, 12), Part C (pp 2–5) and Part D (pp 2–5).

Psychosocial assessment and screening

- Target population – all pregnant or postnatal women (psychosocial assessment), or pregnant or postnatal women with no known diagnosis of depression or anxiety (screening)
- Study design – prospective, controlled studies reporting predictive accuracy (psychosocial assessment) or diagnostic accuracy (screening)
- Comparisons – subsequent manifestation of mental health issues (psychosocial assessment), or any standard clinical/diagnostic interview as a reference standard (screening)
- Language – limited to English.

Effectiveness of interventions

- Target population – pregnant or postnatal women diagnosed with a mental health problem, or considered to be at risk of developing a mental health problem
- Study design – SRs of RCTs, or individual RCTs if no SR or SR out of date
- Interventions – Psychosocial, psychological, pharmacological, complementary or physical therapies used to treat or prevent mental health problems in pregnant or postnatal women
- Comparisons – no treatment/placebo/treatment as usual or active treatment
- Language – limited to English.

Harms of interventions

- Target population – pregnant or postnatal women diagnosed with a mental health problem, or considered to be at risk of developing a mental health problem, or a fetus, infant or child of a mother exposed to a pharmacological, complementary or physical therapy
- Study design – SRs of RCTs (if available), SRs of observational studies, or individual observational studies if no SR or SR out of date or unsuitable
- Comparisons – no treatment/exposure or active treatment
- Language – limited to English.

Strengths and limitations of the evidence

The strengths and limitations of the evidence have been considered from the perspective of the individual studies and the body of evidence aggregated across all the studies. Wherever possible validated methods have been used to assess:

- study design(s)
- study methodology limitations (sampling, blinding, allocation concealment, analytical methods)
- appropriateness/relevance of primary and secondary outcomes considered
- consistency of results across studies
- direction of results across studies
- magnitude of benefit versus magnitude of harm
- applicability to practice context.

GRADE methodology was used to determine the quality of the evidence available for each intervention/outcome. The majority of the evidence for fetal harms was considered generally to be of very low or inadequate quality. It should be noted that the category 'inadequate' was added for the review to better reflect the broad range of quality that would have been considered very low if GRADE methods had been adhered to. A discussion of this adaptation of GRADE methodology can be found in Part D of the Technical Report (Section D2.5.1).

In addition, no GRADE methods could be identified for the assessment of psychometric instruments. Consequently, a hybrid method was developed for quality appraisal of psychosocial assessment instruments. This method was based on accepted psychometric properties and QUADAS-2 principles and is described in detail in Part B of the Technical Report (Sections B4.1 and B5.2).

Formulation of recommendations

As evidence reviews on specific topics were completed they were considered by the EWG and the relevant expert committee(s) as appropriate. The interpretation and implications of the review findings were discussed, and then evidence-based recommendations (EBRs) developed once consensus was reached. The strength of the EBRs was agreed at this point. Once a group of related EBRs and CBRs was developed, the EWG deliberated on the need for practice points to highlight important aspects of care.

The expert committees provided specific expertise to support the EWG. The Harms Expert Committee carried out the initial review of the harms systematic reviews and proposed recommendations for consideration and approval by the EWG.

Once recommendations had been developed across all types of intervention, the Low Prevalence Expert Committee proposed recommendations relevant to women with bipolar disorder, postpartum psychosis, schizophrenia or borderline personality disorder in the perinatal period. This process involved explicit consideration of relevant, recent Australian Guidelines for mood disorder, schizophrenia, and borderline personality disorder in general populations.

Consideration of harms and benefits

The evidence reviews explicitly considered health benefits and harms. The trade-off between benefits and harms is articulated in the rationale for each evidence-based recommendation.

Recommendations on the use of psychosocial and psychological interventions were based primarily on evidence of the effectiveness, because they do not cause direct harm to the fetus, infant or child.

Recommendations on the use of pharmacological, complementary and selected physical interventions were to be based on a trade-off between effectiveness and harm; however, there was very little evidence of effectiveness for these interventions in the perinatal population. The only evidence available was for antidepressants (suggesting it may improve postnatal depression) and omega-3 fatty acids (where it appeared to have no effect on depression).

The harms most likely to effect recommendations were major and cardiac malformations, and neurodevelopmental harms. Due to its strong association with major and cardiac malformation, and adverse cognitive outcome, as well as a lack of evidence of effectiveness in pregnant or postpartum women with, or at risk of developing, a mental health problem, the prescribing of sodium valproate in all women of childbearing age, was strongly recommended against. The evidence of harm associated with carbamazepine, and the lack of evidence for lamotrigine led to a consensus-based recommendation to prescribe anticonvulsants with great caution during pregnancy.

While there were a number of pregnancy and birth outcomes found to be associated with pharmacological therapies (including miscarriage, preterm birth, poor neonatal adaptation syndrome, respiratory distress, convulsions and persistent pulmonary hypertension), these were not directly captured in any recommendations; instead, a Practice Point notes that the potential risks of treatment (including the risk of relapse), as well as the benefits, be discussed with women.

There was little evidence available on the side effects of the pharmacological, complementary and physical interventions assessed; these treatments are all used regularly in clinical practice and as such their side-effect profiles are well established. However, based on a known side-effect of clozapine, agranulocytosis, a consensus-based recommendation states that its use should not be initiated during pregnancy due to the potential harm to the infant.

Link between evidence and recommendations

See Appendix C.

External review

Independent AGREE appraisal

Two independent methodologists were engaged to critically appraise the Guideline using the AGREE-II instrument. This involved assessing the Guideline over a number of domains using the *AGREE-II User's Manual*. The appraisal from both reviewers was generally positive, with combined domain scores as follows.

- **Scope and purpose** (96%) – the draft Guideline described its objective, research questions and target population. However one reviewer felt that the expected benefits for the child could have been covered in greater detail and that more specific PICO criteria might have been a useful inclusion.
- **Stakeholder involvement** (93%) – the draft Guideline outlined that it was developed by a group of individuals from relevant health professions, consumer views had been sought and the target users were specifically identified. One reviewer felt that a wider range of health professionals could have been involved.

- **Rigour of development** (97%) – the draft Guideline outlined the systematic methods used to search for evidence, the selection criteria employed, the strengths and limitations of the evidence, the methods for formulating recommendations and the health benefits and risks considered. Recommendations were explicitly linked to the evidence. A procedure for updating the Guideline and discussion of external review (to be undertaken) was included. One reviewer made suggestions to improve clarity in the technical report about the search and study exclusion process and found that the process of updating between the previous and current Guideline was not clear. The reviewer also noted inconsistencies in numbering and wording of some recommendations between Guideline sections. One reviewer noted that it was unclear who had provided feedback through public consultation or the scope of changes made in response.
- **Clarity of presentation** (100%) – the recommendations in the draft Guideline were specific, unambiguous and easily identifiable and management options were discussed.
- **Applicability** (92%) – the draft Guideline included advice and tools to assist with putting the recommendations into practice and described facilitators and barriers to implementation of recommendations (although one reviewer found that some barriers included in the body of the Guideline were not acknowledged in the appendix and that further information on resource implications should be included in the body of the document). One reviewer noted that digital screening will be able to be monitored, the other that the ability to measure uptake of screening across and within jurisdictions will be crucial for designing and applying implementation strategies.
- **Editorial independence** (100%) – the draft Guideline included a complete list of competing interests of guideline development group members and specifically stated that the views of the funding body had not influenced content.

Both reviewers recommended the use of the Guideline (100 and 93%), with some modifications. One reviewer noted that overall, the Guideline and the accompanying documents are a substantial body of work, of high quality, and from an evidence-based perspective; they are written clearly, with explicit links between evidence and recommendations, and the developers should be commended. The other reviewer noted that the Guideline is comprehensive and clearly written but that navigation around the accompanying documents was difficult at times.

In response to the AGREE appraisals, the Guideline was revised in the following ways:

- cross-reference to PICO criteria in the technical report was included in Section B3 of Appendix B
- a sentence was included in the introduction to clarify that the Guideline development process involved a new review and included a broader range of mental health conditions
- numbering in the summary of recommendations was revised and some consensus-based recommendations revised for consistency with the body of the document
- description of the outcomes of the public consultation process in Section B7 of Appendix B was completed
- further information on resource implications was included in the body of the document
- discussion of barriers was expanded and further discussion of digital screening included in Section B5 of Appendix B.

In addition, the following changes were made to the Technical Report:

- Table A3-1 was expanded to provide more detail of the databases and location of search strings by question (and intervention type) and amended to reduce confusion between question types and questions
- Relevant parts of Table A3-1 were reproduced in the literature search methodology sections of Part B (Section B3), Part C (Section C2.3) and Part D (Section D2.3)
- Changes were made to the numbering of search strings in the appendices to reduce confusion
- Text was added to clarify that literature searches were conducted to identify systematic reviews published from 2009 onwards
- Tables containing 'PRISMA' flow information were relabelled from 'Exclusion of studies' to 'Study inclusion/exclusion'.

Independent peer review

Peer review was sought from clinicians with expertise in perinatal care. No substantive changes were made to the Guideline as a result of peer review.

Updating procedures

The developer is aware of the current requirement of the NHMRC for Guidelines to be updated at an interval no greater than 5 years. The developer commits to this timeframe, subject to appropriate funding. However, given the rapid emergence of relevant evidence in recent years, the developer is exploring ways in which the Guideline might be updated within a shorter timeframe, ideally in response to the publication of evidence that has the potential to change current recommendations or inform the development of new recommendations. The developer plans to update the current Guideline with methodology consistent with the principles and standards of the NHMRC current at the time of update.

B4 Clarity of presentation

Specific and unambiguous recommendations

The evidence-based and consensus-based recommendations were worded based on the following principles:

- recommendations are succinct and action-oriented
- the action recommended is clearly articulated and matches the strength of the body of evidence
- women to whom the recommendation relates are identified
- where relevant, timing of the action is included.

Where there is uncertainty about the best care options, this is outlined in the text.

Management options

The Guideline addresses multiple management options and these are clearly articulated via the structure of the Guideline and the wording of the recommendations and practice points.

Identifiable key recommendations

The evidence-based recommendations, consensus-based recommendations and practice points are clearly identified by colour coding and use of separate numbering systems. The strength of the evidence is also clearly identified. A summary of recommendations is included.

B5 Applicability

Facilitators and barriers

Facilitators

There are a number of facilitators to guideline application which include the following.

Engagement of key stakeholders in the Guideline development

- Peak bodies that provide aspects of perinatal health and mental health care have been involved in the development of the Guideline from the outset.

Infrastructure of peak bodies

- Each of the Colleges will play a key role in communicating the Guideline to their members and advocating for their implementation through communication with College members in newsletters, academic publications in journals and presentation at conferences.

The infrastructure of the health system

- The framework of maternity, postnatal and primary care provision provides a vehicle for all aspects of guideline implementation from consumer education through to screening and assessment and treatment provision. The health and community care landscape has been taken into account when considering the Guideline application across maternity, postnatal, general practice, public and private healthcare settings as well as the range of services available across jurisdictions.

The history of the National Perinatal Depression Initiative (NPDI)

- The Commonwealth Government's investment into the NPDI with States and Territories (2008-15) has provided some valuable history and infrastructure to implementation of the Guideline. Current investment is variable across States and Territories. For example, while some States (e.g. NSW) have state-wide policies in relation to screening, in other states this has been discontinued in the absence of funding. Awareness of the state of play across each jurisdiction and ongoing relationships and collaboration with key Commonwealth and State Government and policy stakeholders since the NPDI, will provide an opportunity to continue to advocate and seek support for national Guideline implementation.

The development of a perinatal mental health website to house all information for consumers, carers and health professions

- Since the release of the initial (beyondblue) Guideline, COPE (Guideline developer) has been established to provide a dedicated focus on perinatal mental health. As part of this work, an extensive website has been developed to provide best practice information for consumers, carers and health professionals (www.cope.org.au). The website will be updated to reflect the latest evidence for depression, anxiety, bipolar disorder and postpartum psychosis, and be expanded to include the additional mental health conditions that have been addressed in the current Guideline. In addition, this website will include all factsheets and screening aids (companion documents) and house the online training program (see below).

The development of a free, online, accredited training program for health professionals

- To support implementation, a free online training program will accompany the release of the Guideline. This will facilitate education for health professionals and include coverage of all guideline recommendations and good practice points. In addition, all companion documents that have been developed for health professionals and consumers/carers will be embedded into the online program to direct people to specific information on each topic.

Consumers and carers

- All information currently contained on the COPE website (www.cope.org.au) is underpinned by the previous clinical practice guideline. As such, all website content will be reviewed to ensure it accurately reflects the new Guideline and directs people to access the Guideline and companion documents.
- The development, promotion and dissemination of **companion documents for consumers and carers** will facilitate the dissemination of Guideline information in a succinct and digestible format for consumers and carers.
- The development of Ready to COPE, **innovative e-guide for consumers** to receive relevant information throughout pregnancy and the postnatal period will be developed and widely disseminated. Information pertaining to mental health is underpinned by the clinical practice guideline, and provides an engaging and innovative approach to information dissemination for consumers and carers. The Ready to COPE guide can be accessed at www.readytocopeco.org.au

Resource implications

Resource implications of each recommendation is considered in Appendix C. In summary, the recommendations are considered to have a low requirement for additional resourcing. This is because the recommendations encompass psychometric tools or treatments that are already in use in clinical care in Australia. If anything, it is possible that the systematic use of psychosocial assessment and screening for depression and anxiety in the perinatal period will result in cost-savings from a whole of health system or societal perspective.

Monitoring/auditing criteria

As the peak body for perinatal mental health in Australia, COPE will continue to consult with service providers nationally to ensure the dissemination and application of the Clinical Guideline across the country. For those utilising digital screening, this will enable the monitoring of screening rates and outcomes across sites and settings in real time. It is noted that the ability to measure uptake of screening across and within jurisdictions will be crucial for designing and applying implementation strategies.

Further the integration of clinical advice into the clinical reporting facilitated by the iCOPE platform will serve to inform and guide best practice by the health professionals.

Further to this, COPE will continue to liaise with representatives of all states and territories involved in the implementation of perinatal mental health initiatives.

B6 Editorial independence

Funding body

Financial support

COPE acknowledges that all the financial support for the development of this Guideline was received from the Commonwealth Department of Health.

Editorial independence from funders

The commissioning of the Guideline Development to COPE as the national peak body in perinatal mental health ensures editorial independence from the Commonwealth as the funding body.

Competing interests

Processes used for declaration and management of competing interests

At the outset of the Guideline development process, all representatives were informed of the importance of managing competing interests and ensuring that any potential conflicts of interest were identified in advance of any meeting (as evidenced in meeting minutes). Processes put in place to manage any potential conflicts of interest were as follows:

- All EWG members and proxies involved in the Guideline development process were required to complete a Declaration of Interest Form (as per the NHMRC requirements). These signed and scanned forms were reviewed by the Co-Chairs of the EWG and are held by the Guideline developer.
- On sending out agenda papers, EWG members were informed of the arising agenda items and asked to notify the Chairperson in advance of the meeting of any potential conflicts of interest that had arisen since the most recent meeting.
- Any arising conflicts of interest were adjudicated by the Chair and Co-Chair. When a conflict of interest was declared by a EWG member, he or she was invited to take part and contribute to discussions but was asked to leave the room (or was not involved in email discussions) when recommendations were being formed. A conflict of interest held by the Chair was managed by the Co-Chair and the area of conflict clearly stated. The same provisions as for other members were applied.
- If a conflict of interest was deemed to be material prior to a meeting, the member was asked to continue to contribute to the committee, with the above measures taken to limit the introduction of bias.

There was only one instance of a possible competing interest – the review of a clinical psychometric instrument (the ANRQ), which was developed by one of the expert working group members. This was made known to all members of the EWG at the outset of discussions. To address this issue, the member of the group was involved in the initial discussion of all available psychometric instruments but not in further discussion or the decision-making process.

Table B2: Competing interests of EWG members

Representative	Competing interest
Prof Marie-Paule Austin	Has published in the area of screening and psychosocial assessment Developed the Antenatal Risk Questionnaire (ANRQ)
Dr Nicole Highet	Developer of educational materials and digital screening and referral platforms.
Dr James Best	Nil
Mr Andrew Davis	Nil
Ms Suzanne Higgins	Has shares in Medibank Private
Dr Helen Lindner	Nil
Prof Rhonda Marriott	Nil
Ms Creina Mitchell	Has published in the area of interventions for postnatal depression
Ms Jenni Richardson	Has developed educational materials on emotional and mental wellbeing in the perinatal period
Dr Vijay Roach	Chairman of Gidget Foundation Australia (not-for-profit)
Ms Terri Smith	Nil
Dr Jan Taylor	Nil

B7 Public consultation

The draft Guideline was released for a 30-day public consultation, as required in the *NHMRC Act, 1992* (as amended), so that the final guideline 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.

Public consultation on the draft Guideline was conducted from 5 June to 4 July 2017.

The consultation draft was disseminated through COPE company members:

- Australian College of Mental Health Nurses (ACMHN)
- Australian College of Midwives (ACM)
- Australian Psychological Society (APS)
- Maternal Child and Family Health Nursing Association (MCaFNA)
- Perinatal Anxiety and Depression Australia (PANDA)
- Royal Australian College of General Practitioners (RACGP)
- Royal Australian New Zealand College of Obstetricians and Gynaecologists (RANZCOG)
- Royal Australian and New Zealand College of Psychiatrists (RANZCP)
- The Congress of Aboriginal and Torres Strait Islander Nurses and Midwives (CATSINaM).

In addition, representatives of state and territory health departments were contacted and advised of the public consultation.

A submission summary was developed that documented public submissions received and responses from the EWG. This document is available from the COPE website.

Over the consultation period and the following 17 days, 30 submissions were received. Of these, six were from individuals and the remainder from organisations (including professional colleges, associations and societies; state/territory health departments; research centres and consumer organisations). One individual submission was from a consumer with a lived experience of antenatal psychosis and another from a consumer representative. Two pairs of submissions were duplicate or raised the same points with slightly different wording. The Australian College of Mental Health Nurses and PANDA (a consumer organisation) advised that they would not be providing a submission as they had been represented on the EWG and felt that their comments had been acknowledged in that forum.

Following the consultation period, submissions, a report of submissions and a revised draft of the Guideline with editorial advice (developed by the Co-Chairs and the technical writer) were circulated to the EWG by email and feedback sought. All EWG members provided feedback on this initial revision and there was general consensus on the suggested changes. The EWG feedback was collated and informed the further development of the draft Guideline. Final drafts of the Guideline and submission report were then circulated to the EWG for sign-off.

The following points list substantive comments provided in submissions and the EWG response. The submission report includes all comments provided through submissions and The EWG response.

Areas for inclusion or further expansion

- **Family violence** – Two submissions raised the need for the Guideline to provide guidance on identifying intimate partner violence and effective first-line responses. Another recommended that family violence be addressed separately to substance use. The evidence on screening for family violence was not included in the systematic review and it was agreed to note in the Introduction that assessment for family violence is outside the scope of the Guideline and to cross-reference to the Pregnancy Care Guidelines (the evidence on assessing family violence was evaluated in the review of those Guidelines and the resulting chapter has been revised to incorporate a submission on those Guidelines that almost duplicates one provided on this Guideline).
- **LGBTI community** – One submission noted that the unique needs of the LGBTI community were not included in the draft Guideline. A point on this group has been included in Section 1.1.
- **Resource implications** – Two submissions noted the resource implications for mental health services. Chapter 3 notes the need for systems for follow-up and support to be in place before screening and assessment is carried out. In addition, implications of implementing all recommendations are included in Appendix C.
- **e-health** – Two submissions noted that online supports for mental health and emotional wellbeing in the perinatal period were not discussed. This has been included in Section 8.4.3.
- **Nutrition** – One submission suggested that there should be a greater focus on the role of nutrition in prevention and management of mental health conditions, the mother's capacity to make healthy nutrition choices for herself and her child and the role of accredited practising dietitians in mental health care in the perinatal period. This has been included where appropriate in the Guideline.

Part A – Background information

- **Antenatal psychosis** – One submission from an individual with a lived experience of antenatal psychosis noted that this was not covered in the draft Guideline. A specific reference to antenatal psychosis has been included in the Guideline.
- **Cultural safety** – Submissions raised the need to provide more direction on supporting people who identify as Aboriginal and/or Torres Strait Islander or who are from a culturally or linguistically diverse background and to include a practice point to ensure that health professionals undertake cultural safety training and recognise the importance of culturally safe screening skills. This has been included.
- **Fathers' perinatal mental health** – Six submissions suggested that the appendix on perinatal mental health in partners be included in the body of the document and one provided additional evidence on the subject. Other submissions suggested that the mental health of the father and co-parent be considered throughout the Guideline and that the role of the father in a woman's support network be acknowledged. The content of Appendix E has been moved to Chapter 1, noting that this area was not covered in the systematic review, and updated to incorporate the new evidence provided.
- **Recovery-oriented mental health care** – Two submissions suggested inclusion of the principles of recovery. A section on recovery-oriented mental health care has been included in Chapter 2.
- **Trauma-informed care** – One submission suggested inclusion of discussion of trauma-informed care. A section on trauma-informed care has been included in Chapter 2.

Part B – Screening and assessment

- **Screening for depression** – Three submissions suggested that two universal postnatal screens was demanding for health professionals, with two (duplicate) submissions suggesting that the EPDS only be repeated when clinically indicated (as in CBR v). A further submission suggested that the CBR to repeat the EPDS in 4–6 weeks for women with a score of 10–12 was inconsistent with the EPDS Manual, which recommends repeat screening in 2 weeks for women with a 'high' score ('high' not defined in the submission). One submission suggested that an EPDS score of 10–12 postnatally should trigger extra intervention from a Maternal and Child Health Nurse. The recommendation on two universal postnatal screens was retained based on the persistence of depressive and anxiety symptoms in the first year postpartum. The recommendation regarding women with an EPDA score of 10–12 was changed to repeat screening in 2–4 weeks.

- **Screening for anxiety** – Two submissions suggested that the Perinatal Anxiety Screening Scale (PASS) be included, however the evidence on this tool did not meet criteria for inclusion in the systematic review. Three submissions, of which two were duplicate, suggested that the relevant items from the suggested tools be included in the recommendation. These have been included as suggested.
- **Psychosocial assessment** – One submission suggested that practice points regarding the need for psychosocial assessment are essential but that the use of a specific tool may not yet have the necessary evidence base. It also suggested that the Guideline make it clearer that psychosocial assessment can be conducted as part of the clinical interview or using a tool. The chapter was revised to reflect this comment.
- **Risk of suicide** – One submission suggested that Figure 7.1 was problematic and provided ‘red flag presentations’ from a UK report, however the EWG agreed that the existing section was appropriate to the Australian context.
- **Infant mental health** – One submission suggested that guideline would benefit from further integration of perinatal psychiatry and infant mental health as it is felt that this would reflect best practice. Another two submissions noted that there was no discussion of the infant’s context as far as setting the scene for early brain development. The EWG noted that this is discussed in the introduction.

Part C – Prevention and treatment

- **Psychological treatment for women with mild to moderate depressive or anxiety disorder** – CBRs xvii and xviii – Two submissions felt that these CBRs needed better justification for their implementation considering the low level of evidence provided. Both CBRs were revised to better reflect the evidence base.
- **Psychological treatment for women with moderate to severe depressive or anxiety disorder** – One submission found that the CBR that these disorders are best treated pharmacologically was inconsistent with the evidence and clinical experience and potentially reflected the composition of the expert groups. The recommendation has been softened to reflect this comment.

B8 Dissemination and implementation

As Australia’s peak body in Perinatal Mental Health, the COPE, the Centre of Perinatal Excellence will provide leadership and collaborate with its membership to support and promote the implementation of the final Guideline.

The final complete Guideline, together with a series of companion documents and resources (see above), will be disseminated broadly through the implementation of the following strategies.

Overarching

- Production of Guideline and companion documents for health professionals and consumers, which will be available from the COPE website.
- Placement of Guideline on key websites (COPE, Colleges, PANDA and the Commonwealth Government)
- E-dissemination of the Guideline through all professional bodies.
- National and targeted Media releases to announce the release of the new Perinatal Guideline.

Health Professionals (targeted)

- Writing and dissemination of newsletters and articles to disseminated across all professional bodies (COPE Membership) to inform respective college members of the new Guideline and where and how to access them.
- Presentation of key recommendations at key meetings/conferences, including the Marce Australasian Conference in September 2017.
- Publication of journal articles for journals commonly referred to by health practitioners.

Consumers and carers (targeted)

- Promotion of key recommendations of interest for consumers across broad and targeted media (including broad-span and social media channels).
- Education of all staff at the PANDA Helpline regarding the key recommendations and the implications for advice to consumers who may be calling the helpline.
- The development of targeted social media to promote key messages and direct consumers to the guideline and companion documents.
- Placement and links to Guideline and companion documents on partner organisation websites (e.g. beyondblue; PANDA; Pregnancy, Birth and Baby; Healthshare; Gidget Foundation Australia).

C Linking evidence to recommendations

This appendix maps the evidence statements from the Technical Report to the evidence-based recommendations in this Guideline. Full details of the evidence, including summary of findings tables, are given in the Technical Report, which is available from the COPE website.

Psychosocial assessment and screening

Screening for depressive and anxiety disorders

Table C2: Summary of evidence on depression screening tools in the antenatal period

Tool	Condition	Cut-off	Sensitivity	Specificity	Quality
EPDS	Major depression	≥10	0.88 (0.89 to 0.94)	0.88 (0.86 to 0.90)	High
		≥13	0.83 (0.76 to 0.88)	0.90 (0.88 to 0.92)	
	Minor and major depression	≥10	0.74 (0.65 to 0.82)	0.86 (0.83 to 0.89)	Moderate
		≥13	0.61 (0.5 to 0.72)	0.94 (0.92 to 0.96)	
K-10	Major depression	6	0.75 (0.48 to 0.93) to 1.00 (0.88 to 1.00)	0.54 (0.44 to 0.63) to 0.81 (0.74 to 0.86)	Low
PHQ-9	Major depression	9/10	0.74 (0.61 to 0.85) to 0.85 (0.66 to 0.96)	0.73 (0.38 to 0.94) to 0.84 (0.81 to 0.87)	Low
	Minor or major depression	9/10	0.75 (0.64 to 0.84)	0.88 (0.85 to 0.90)	Very low
Whooley questions	Minor or major depression	-	1.00 (0.80 to 1.00)	0.68 (0.58 to 0.77)	Low
Whooley plus 'help' question			0.59 (0.33 to 0.82)	0.91 (0.77 to 0.98)	

Source: (NICE 2015).

Table C3: Summary of evidence on depression screening tools in the postnatal period

Tool	Condition	Cut-off	Sensitivity	Specificity	Quality
EPDS	Major depression	≥10	0.95 (0.92 to 0.97)	0.82 (0.80 to 0.84)	High
		≥13	0.80 (0.77 to 0.83)	0.93 (0.92 to 0.94)	
	Minor and major depression	≥10	0.83 (0.81 to 0.86)	0.85 (0.84 to 0.86)	High
		≥13	0.68 (0.66 to 0.71)	0.92 (0.92 to 0.93)	
K-10	Minor or major depression	6	0.85 (0.66 to 0.96)	0.41 (0.25 to 0.59)	Low
PHQ-2	Major depression	2 or 3	0.77 (0.46 to 0.95) to 0.84 (0.71 to 0.94)	0.59 (0.53 to 0.66) to 0.79 (0.75 to 0.83)	Low
		3 or 4	0.63 (0.32 to 0.86)	0.79 (0.73 to 0.84)	Low
PHQ-9	Major depression	simple	0.82 (0.68 to 0.92) to 0.89 (0.80 to 0.95)	0.65 (0.43 to 0.84) to 0.84 (0.80 to 0.87)	Very low
		complex	0.67 (0.51 to 0.80)	0.92 (0.89 to 0.94)	
Whooley questions	Minor or major depression	-	1.00 (0.81 to 1.00)	0.64 (0.53 to 0.75)	Very low
	Major depression	-	1.00 (0.92 to 1.00)	0.44 (0.39 to 0.49)	
Whooley plus 'help' question	Minor or major depression	-	0.39 (0.17 to 0.64)	1.00 (0.87 to 1.00)	Very low

Source: (NICE 2015).

Evidence statements: screening tool

Antenatal screening	A score of 13 or more on the EPDS has moderate sensitivity and high specificity for detecting possible major depression in pregnant women (high quality evidence).
	A score of 10 or above on the EPDS has moderate sensitivity and moderate specificity for detecting possible depressive disorders (minor and major depression) in pregnant women (moderate quality evidence).
	It is uncertain if the PHQ has adequate sensitivity or specificity to detect possible depressive disorders in pregnant women (very low to low quality evidence).
	It is uncertain if the 'Whooley questions' have adequate sensitivity or specificity to detect possible minor or major depression in pregnant (very low quality evidence).
Postnatal screening	It is uncertain if the K-10 has adequate sensitivity or specificity to detect possible major depression in pregnant women (low quality evidence).
	A score of 13 or more on the EPDS has moderate sensitivity and high specificity for detecting possible major depression in postpartum women (high quality evidence).
	A score of 10 or above on the EPDS has moderate sensitivity and moderate specificity for detecting possible depressive disorders (minor and major depression) in postpartum women (high quality evidence).
	It is uncertain if the PHQ has adequate sensitivity or specificity to detect possible depressive disorders in postpartum women (very low to low quality evidence).
	It is uncertain if the 'Whooley questions' have adequate sensitivity or specificity to detect possible depression in postpartum women (very low quality evidence).
	It is uncertain if the K-10 has adequate sensitivity or specificity to detect possible depression in postpartum women (very low quality evidence).

RECOMMENDATION

Use the EPDS to screen women for a possible depressive disorder in the perinatal period.

STRONG

Rationale

Based on evidence that the EPDS in the antenatal or postnatal period has moderate sensitivity and moderate to high specificity for identifying possible depression (moderate to high quality) and that there is uncertainty about the adequacy of sensitivity or specificity of the PHQ (very low to low quality), 'Whooley questions (very low quality) or K-10 (low quality).

References: (NICE 2015)

Implications for implementation

The use of the EPDS in the antenatal period was recommended in the previous perinatal mental health guideline. It is hoped that this recommendation will continue to increase rates of screening, which may have implications for services providing further assessment or treatment in primary care settings, while potentially reducing the severity of disorders (through early identification) and hence need for medical/specialist care. The EPDS is a free tool for use in clinical and research settings, and permission has also been granted to the Guideline developer to use it for e-screening.

It is also recommended that there is an expansion of the Medicare item number 16590 to further support screening to be undertaken by general practitioners and specialist services (obstetricians). This will support screening in line with best practice – particularly in the private sector where screening rates are significantly lower (when compared with the public maternity sector).

Evidence statements: screening tool cut-off

A score of 13 or more on the EPDS has moderate sensitivity and high specificity for detecting possible major depression in pregnant women (high quality evidence).

A score of 13 or more on the EPDS has moderate sensitivity and high specificity for detecting possible major depression in postpartum women (high quality evidence).

RECOMMENDATION

Arrange further assessment of perinatal woman with an EPDS score of 13 or more.

STRONG

Rationale

Based on evidence that a cut-off score of 13 or more is associated with the highest sensitivity, specificity and positive likelihood ratio and the lowest negative likelihood ratio for detecting possible major depression in the antenatal or postnatal period compared to other cut-off scores (high quality evidence).

References: (NICE 2015)

Implications for implementation

The availability of the EPDS in many languages currently (some validated and some invalidated) supports the use of the EPDS for women of non-English speaking backgrounds. Translated versions of EPDS are free for use in clinical and research settings, and permission granted by the Guideline developer to use for e-screening. In addition, the Guideline developer has translated the EPDS into other languages not previously available and has permission to make these available in electronic formats.

Psychosocial assessment

Evidence statements: psychosocial assessment tool

The ALPHA is effective at identifying family violence (moderate quality evidence).

The ANRQ is effective at predicting cases of depression (moderate quality evidence).

The PRQ is effective at predicting cases of depression (moderate quality evidence).

RECOMMENDATION

If using a tool to assess psychosocial risk, administer the ANRQ.

STRONG

Rationale

Based on evidence that the ANRQ has acceptable technical performance in identifying women at increased risk of depression or anxiety disorder (OR 6.3 [95% CI 3.5 to 11.5]), is acceptable among pregnant women (92–97%) and midwives (98%) and has a positive effect on the rates of referral for mental health assessment (moderate quality evidence). In contrast, the ALPHA has limited psychometric properties, is moderately acceptable to users and is effective in identifying family violence (OR 2.7; 95%CI 1.1 to 6.9) and 'high level of psychosocial concern' on the health professional's part (OR 2.8; 95%CI 0.7 to 11.7) but does not have adequate capacity to identify women at increased risk of postnatal depression (moderate quality evidence).

References: (Austin et al 2005; Carroll et al 2005; Austin et al 2013; Reilly et al 2015)

Implications for implementation

The ANRQ is a free tool for use in clinical and research settings (request from m.austin@unsw.edu.au), and permission has been granted by its authors (Austin et al 2013) for the Guideline developer to use for e-screening. It forms part of the Mummatters online tool, which can be downloaded via the internet at <https://mummatters.com.au> Mummatters is designed for pregnant and postnatal women to self-assess and track their emotional wellbeing.

Prevention and treatment

Psychosocial support

Structured psychoeducation

Evidence statements

Psychologically (CBT/IPT)-informed psychoeducation improves depression symptomatology (high quality evidence) at endpoint or first measurement compared with treatment as usual or enhanced treatment as usual in women who have symptoms (or subthreshold symptoms) of depression in the perinatal period.

Psychologically (CBT/IPT)-informed psychoeducation has inconsistent effects on depression diagnosis at endpoint or first measurement (very low quality evidence), at intermediate follow-up (17-24 weeks post-intervention) (very low quality evidence), and at long follow-up (25-103 weeks post-intervention) (very low quality evidence) compared with treatment as usual or enhanced treatment as usual in women who have symptoms (or subthreshold symptoms) of depression in the perinatal period.

Psychologically (CBT/IPT)-informed psychoeducation has inconsistent effects on depression mean scores at endpoint or first measurement (moderate quality evidence), at short follow-up (9-16 weeks post-intervention) (moderate quality evidence), at intermediate follow-up (17-24 weeks post-intervention) (low quality evidence), and at long follow-up (25-103 weeks post-intervention) (low quality evidence) compared with treatment as usual or enhanced treatment as usual in women who have symptoms (or subthreshold symptoms) of depression in the perinatal period; however, the magnitude of any benefit may not be clinically significant.

RECOMMENDATION

Provide structured psychoeducation to women with symptoms of depression in the perinatal period.

STRONG

Rationale

Based on evidence that psychologically (CBT/IPT)-informed psychoeducation improves depression symptoms among women in the perinatal period (high quality evidence).

References: (NICE 2015)

Implications for implementation

The need for quality psychoeducational material for pregnant women, new mothers and their families supports the need for educational resources to be provided across maternity and healthcare settings. This has previously taken the form of education booklets and electronic information for consumers and family members. The provision of psychoeducation resources needs to be sustained, taking into account the needs of women from non-English speaking backgrounds.

Social support group

Evidence statements

Social support group combined with physical exercise (a pram walking exercise program) may improve depression mean symptoms (low quality evidence) and may have an effect on depression symptomatology (low quality evidence) compared with enhanced treatment as usual (telephone support) in women who have symptoms of depression in the postnatal period.

Social support group may improve depression mean symptoms at endpoint or first measurement (low quality evidence) compared with physical exercise (a pram walking exercise program) in women who have symptoms of depression in the postnatal period.

RECOMMENDATION

Advise women with symptoms of depression in the postnatal period of the potential benefits of a social support group.

CONDITIONAL

Rationale

Based on evidence that involvement in a social support group may improve depression mean symptoms in women who have symptoms of depression in the postnatal period (low quality evidence).

References: (NICE 2015)

Implications for implementation

This supports the need for continued provision of support groups (e.g. mothers' group) and the promotion of other support networks within community settings.

Psychological therapy

Individual structured psychological interventions

Evidence statements

Structured psychological interventions (individual CBT or IPT) improve depression diagnosis at endpoint or first measurement (high quality evidence) compared with treatment as usual or enhanced treatment as usual in pregnant or postpartum women with a diagnosis of depression.

Structured psychological interventions (individual CBT or IPT) appear to have no effect on depression diagnosis at intermediate follow-up (17-24 weeks post-intervention) (low quality evidence) compared with treatment as usual in pregnant or postpartum women with a diagnosis of major depressive disorder or depression.

Structured psychological interventions (individual CBT or IPT) improve depression mean scores at endpoint or first measurement (moderate quality evidence) compared with treatment as usual or enhanced treatment as usual in pregnant and postpartum women with a diagnosis of depression or symptoms of depression.

Structured psychological interventions (individual CBT or IPT) appear to have no effect on depression mean scores at intermediate follow-up (17-24 weeks post-intervention) (very low quality evidence) compared with treatment as usual in pregnant or postpartum women with a diagnosis of major depressive disorder or depression.

Structured psychological interventions (individual CBT) appear to have no effect on depression symptomatology at short follow-up (9-16 weeks post-intervention) (low quality evidence) compared with treatment as usual in pregnant or postpartum women with a diagnosis of major depressive disorder.

Structured psychological interventions (individual CBT) appear to have no effect on depression symptomatology at long follow-up (>24 weeks post-intervention) (very low quality evidence) compared with enhanced treatment as usual non-specific emotional support and mothercraft advice) in postpartum women with a diagnosis of major depressive disorder.

Structured psychological interventions (individual CBT) appear to have no effect on depression symptomatology at short follow-up (9-16 weeks post-intervention) (low quality evidence) compared with treatment as usual in pregnant or postpartum women with a diagnosis of major depressive disorder.

Structured psychological interventions (individual CBT) may reduce risk of self-harm mean scores at endpoint or first measurement (low quality evidence) compared with treatment as usual in postpartum women with symptoms of depression; however, the magnitude of the benefit may not be clinically significant.

Structured psychological interventions (individual CBT) improves mother–infant play frequency at endpoint or first measurement (high quality evidence) compared with enhanced treatment as usual (home visits) in pregnant or postpartum women with a diagnosis of major depressive episode.

Structured psychological interventions (individual IPT) may improve anxiety mean scores at endpoint or first measurement (low quality evidence) compared with enhanced treatment as usual (psychoeducation booklet, monitoring and improved access to support) in pregnant or postpartum women with a diagnosis of depression; however, the magnitude of the benefit may not be clinically significant.

RECOMMENDATION

Recommend individual structured psychological interventions (cognitive behavioural therapy or interpersonal psychotherapy) to women with mild to moderate depression in the perinatal period.

STRONG

Rationale

Based on evidence that individual structured psychological interventions (CBT or IPT) in the perinatal period improve depression (high quality) and depression mean scores at (moderate quality) and may improve depression symptomatology (low quality) among women with symptoms or a diagnosis of depression.

References: (NICE 2015)

Implications for implementation

This supports the need for: 1) clear referral pathways for health professionals to refer women to suitably qualified health professionals and/or online treatments for the provision of timely recommended psychological treatments; 2) continued Medicare rebatable item numbers to ensure the continued provision of psychological services to women within the perinatal period.

Directive counselling

Evidence statements

Directive counselling may improve depression symptomatology (low quality evidence) at endpoint or first measurement compared with treatment as usual in postpartum women with a diagnosis of minor depression or major depressive disorder.

Directive counselling appears to have no effect on depression mean scores at endpoint or first measurement (low quality evidence) but may improve depression mean scores at long follow-up (25-103 weeks post-intervention) (low quality evidence) compared with treatment as usual in postpartum women with a diagnosis of minor depression or major depressive disorder.

Directive counselling may improve anxiety mean scores at endpoint or first measurement (low quality evidence) compared with treatment as usual in postpartum women with a diagnosis of minor depression or major depressive disorder.

RECOMMENDATION

Advise women with depression or anxiety disorder in the postnatal period of the possible benefits of directive counselling.

CONDITIONAL

Rationale

Based on evidence that, among women in the postnatal period with a diagnosis of minor or major depression, directive counselling may improve depression and anxiety symptomatology (low quality).

References: (NICE 2015)

Implications for implementation

This supports the need for: 1) clear referral pathways for health professionals to refer women to suitably qualified health professionals and/or online treatments for the provision of timely recommended psychological treatments; 2) continued Medicare rebatable item numbers to ensure the continued provision of psychological services to women within the perinatal period.

Complementary therapies

Omega-3 fatty acids

Evidence statements: effectiveness

Treatment with omega-3 fatty acids appears to have no effect on response rate at 8 weeks post-treatment compared with placebo, in women with antenatal or postnatal depression (very low quality evidence).

Treatment with omega-3 fatty acids appears to have no effect on remission rate at 8 weeks post-treatment compared with placebo, in women with antenatal or postnatal depression (very low quality evidence).

Treatment with omega-3 fatty acids appears to have no effect on depression mean score at 6–36 weeks post-treatment compared with placebo, in women with antenatal or postnatal depression (very low quality evidence).

Treatment with omega-3 fatty acids does not appear to be associated with an increased risk of mild/transient side effects at 6–8 weeks post-treatment compared with placebo, in antenatal or postnatal depression (very low quality evidence).

Evidence statements: harms

Maternal use of omega-3 fatty acids at any time during pregnancy is associated with a decreased risk of early preterm birth (< 34 weeks), from an absolute risk of 0.3% to 0.1% (high quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy is associated with a decreased risk of preterm birth (< 37 weeks), from an absolute risk of 0.6% to 0.5% (high quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy may be associated with a decreased risk of the infant being small for gestational age; however, the finding was not statistically significant (moderate quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy is not associated with an increased risk of intrauterine growth restriction in women with a history of intrauterine growth restriction (moderate quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy may be associated with a decreased risk of neonatal mortality; however, the finding was not statistically significant (moderate quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy or lactation is not associated with a reduction in cognitive development at < 12 months, 12–24 months and 5–12 years (moderate to high quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy or lactation is associated with an improvement in cognitive development at 2–5 years (high quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy only is not associated with a reduction in cognitive development at 2–5 years (low to high quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy or lactation is not associated with a reduction in motor development at < 12 months, 12–24 months and 2–5 years (very low to moderate quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy only is not associated with a reduction in motor development at 12–24 months (high quality evidence).

Maternal use of omega-3 fatty acids at any time during pregnancy only is not associated with a reduction in language development at 12–24 months and 2–5 years (moderate to high quality evidence).

RECOMMENDATION

CONDITIONAL

Advise women that omega-3 fatty acid supplementation does not appear to improve depression symptoms but is not harmful to the fetus or infant when taken during pregnancy or while breastfeeding.

Rationale

Based on evidence that omega-3 fatty acid supplementation does not appear to have an effect on depression symptoms in the antenatal or postnatal periods (very low quality). There is an association with a slightly reduced risk of early preterm birth (<34 weeks) (from 3 to 1 per 1,000) (moderate quality); a slightly reduced risk of preterm birth (<37 weeks) (6 to 5 per 1,000) (high quality); a lack of association between use during pregnancy and increased risk of intrauterine growth restriction in women with a history of intrauterine growth restriction (moderate quality) or reduction in cognitive development at 2–5 years (low to high quality), motor development at 12–24 months (high quality) or language development at 12–24 months and 2–5 years (moderate to high quality); and a lack of association with reduced cognitive development at <12 months, 12–24 months and 5–12 years (moderate to high quality) or reduced motor development at <12 months, 12–24 months and 2–5 years (very low to moderate quality) when used during pregnancy and lactation. There was no evidence for an increased risk of postpartum haemorrhage in the studies assessed. There is a lack of effect as prophylaxis in women at risk of postnatal depression (low quality).

References: (Gould et al 2013; NICE 2015; Saccone et al 2015; Kar et al 2016)

Implications for implementation

This supports the need for quality information provision to women and families about the role of omega-3 fatty acid supplementation as part of psychoeducation (outlined above).

Pharmacological treatments

SSRIs during pregnancy

Evidence statements: harms

Maternal use of SSRIs during the first trimester of pregnancy does not appear to be associated with an increased risk of major malformation in the newborn (very low quality evidence).

Maternal use of SSRIs during the first trimester of pregnancy does not appear to be associated with an increased risk of cardiac malformation in the newborn (very low quality evidence).

Maternal use of SSRIs during the first trimester of pregnancy does not appear to be associated with an increased risk of neonatal mortality (very low quality evidence).

Maternal use of SSRIs during the first 20 weeks of pregnancy is associated with an increased risk of miscarriage, from an absolute risk of 8% to 11% (low quality evidence).

Maternal use of SSRIs during late pregnancy is associated with an increased risk of preterm birth, from an absolute risk of 6% to 16% (low quality evidence).

Maternal use of SSRIs at any time during pregnancy does not appear to be associated with an increased risk of the newborn being small for gestational age (low quality evidence).

Maternal use of SSRIs at any time during pregnancy appears to be associated with an increased risk of poor neonatal adaptation syndrome in the newborn, but due to the inadequate quality of the evidence this association is uncertain.

Maternal use of SSRIs during the third trimester of pregnancy may be associated with an increased risk of poor neonatal adaptation syndrome compared with maternal use of SNRIs during the same period (increase in absolute risk not estimable) (very low quality evidence).

Maternal use of SSRIs during late pregnancy may be associated with an increased risk of persistent pulmonary hypertension in the newborn, from an absolute risk of 0.3% to 0.4% (low quality evidence).

Maternal use of SSRIs at any time during pregnancy may be associated with an increased risk of respiratory distress in neonates, from an absolute risk of 3% to 5% (very low quality evidence).

Maternal use of SSRIs during the third trimester of pregnancy is associated with an increased risk of convulsions in the newborn, and the risk increases with increasing exposure, from an absolute risk of 0.3% up to 0.4% for one prescription filled, and up to 1.5% for three prescriptions filled (low quality evidence).

Maternal use of SRIs at any time during pregnancy does not appear to be associated with a reduction in IQ in children aged 3 to 6 years, after controlling for maternal level of education (very low quality evidence).

Maternal use of SRIs at any time during pregnancy does not appear to be associated with an increased risk of behavioural problems in children aged 3 to 6 years (very low quality evidence).

There appears to be an association between maternal use of SSRIs at any time during pregnancy and an increased risk of postpartum haemorrhage, but due to the inadequate quality of the evidence, this association is uncertain.

RECOMMENDATION

Consider the use of SSRIs as first-line treatment for moderate to severe depression and/or anxiety in pregnant women.

CONDITIONAL

Rationale

Based on high quality RCT evidence of efficacy in the general population, evidence that use in pregnancy is not associated with major and cardiac malformations (very low quality) and evidence that increases in absolute risk of other adverse outcomes are small (very low to low quality) – miscarriage (from 81 to 109 per 1,000 with use in first 20 weeks), preterm birth (from 60 to 161 per 1,000 with use in late pregnancy), convulsions in the newborn (from 3 to 4 per 1,000 with one prescription filled in the third trimester, and 3 to 15 with three prescriptions filled in the third trimester), persistent pulmonary hypertension (from 3 to 4 per 1,000 with use in late pregnancy), respiratory distress or difficulty (from 32 to 45 per 1,000 with use at any time).

References: (Simon et al 2002; NICE 2009; updated 2016; Ban et al 2012; Ban et al 2014; Berard et al 2015) (Margulis et al 2013; Ban et al 2014; Huybrechts et al 2014; Berard et al 2015; Furu et al 2015; Petersen et al 2016) (Oberlander et al 2006) (Nakhai-Pour et al 2010) (Grzeskowiak et al 2012; Hayes et al 2012; Almeida et al 2016) (Huybrechts et al 2015) (Malm et al 2015) (Kieviet et al 2015) (Nulman et al 2015) (Jiang et al 2016)

Implications for implementation

This supports the need for:

1. education and training for health professionals about the safe and effective use of SSRIs in pregnant women;
2. the provision of patient information.

SSRIs in the postnatal period

Evidence statements: effectiveness

Treatment with an SSRI may improve response rate at 6–8 weeks post-treatment compared with placebo, in women with postnatal depression, from a rate of 37% to 52% (very low quality evidence).

Treatment with an SSRI may improve remission rate at 6–8 weeks post-treatment compared with placebo, in women with postnatal depression, from a rate of 26% to 46% (very low quality evidence).

Treatment with an SSRI appears to have no effect on depression mean score at 6 weeks post-treatment compared with placebo, in women with postnatal depression (very low quality evidence).

Treatment with an SSRI may improve global severity mean score at 6 weeks post-treatment compared with placebo, in women with postnatal depression (very low quality evidence).

Evidence statements: harms

Treatment with an SSRI does not appear to be associated with an increased risk of maternal adverse events at 6–8 weeks post-treatment compared with placebo, in women with postnatal depression (very low quality evidence).

RECOMMENDATION

Use SSRIs as first-line treatment for moderate to severe depression in postnatal women.

STRONG

Rationale

Based on high quality RCT evidence of efficacy in the general population; while there are few data on the efficacy of antidepressants in perinatal samples, the available evidence suggests that SSRI use may improve response and remission rate at 6–8 weeks. Although the perinatal specific evidence is of very low quality, this recommendation has been graded as 'strong' due to the minute exposure to these antidepressants through breast milk and the greater need to treat depression postnatally (given its effect on the woman's ability to care for the infant and on mother–infant attachment).

References: (Molyneux et al 2014; NICE 2015) (NICE 2009; updated 2016)

Implications for implementation

This supports the need for:

1. education and training for health professionals about the safe and effective use of SSRIs in pregnant women;
2. the provision of patient information.

Antipsychotics

Evidence statements: harms

Maternal use of any antipsychotic medication during early pregnancy may be associated with an increased risk of major malformation in the newborn, but due to the inadequate quality of the evidence any such association is uncertain.

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of neonatal mortality (very low quality evidence).

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of stillbirth (very low quality evidence).

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of miscarriage (low quality evidence).

Maternal use of any antipsychotics during pregnancy (either first, second or third trimester) does not appear to be associated with an increased risk of preterm birth (very low quality evidence).

Maternal use of any antipsychotics during pregnancy (either first, second or third trimester) does not appear to be associated with an increased risk of the newborn being small for gestational age (very low quality evidence).

Maternal use of any antipsychotics during the third trimester may be associated with an increased risk of the newborn being large for gestational age (low quality evidence).

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of seizures in the newborn (very low quality evidence).

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of respiratory distress in newborns (very low quality evidence).

Maternal use of any antipsychotics during pregnancy does not appear to be associated with an increased risk of poor neonatal adaptation syndrome (very low quality evidence).

Maternal use of any antipsychotics during the first two trimesters of pregnancy does not appear to be associated with an increased risk of poor neonatal adaptation syndrome (very low quality evidence).

RECOMMENDATION

Consider the use of antipsychotics for treating psychotic symptoms in pregnant women.

CONDITIONAL

Rationale

Based on high quality RCT evidence of efficacy in the general population and evidence that use of most antipsychotics in pregnancy does not appear to be associated with adverse pregnancy/birth or neonatal outcomes (very low to low quality).

References: (Lin et al 2010; NICE 2014; NICE 2014; updated 2016; Huybrechts et al 2016)

Implications for implementation

This supports the need for:

1. education and training for health professionals about the safe and effective use of antipsychotics in pregnant women;
2. the provision of patient information.

Anticonvulsants

Evidence statements: harms

Maternal use of sodium valproate during pregnancy is associated with an increased risk of major malformation in the newborn, from an absolute risk of 3% to 9% (very low quality evidence).

Maternal use of sodium valproate during pregnancy is associated with an increased risk of cardiac malformation in the newborn, from an absolute risk of 0.6% to 3.0% (very low quality evidence).

Maternal use of sodium valproate during pregnancy is associated with an increased risk of below average IQ (full-scale IQ score at 1 SD level) in the child (low quality evidence).

Maternal use of sodium valproate during pregnancy may be associated with a reduction in mean verbal IQ score in the child (very low quality evidence).

Maternal use of sodium valproate during pregnancy may be associated with a reduction in mean performance IQ score in the child (very low quality evidence).

RECOMMENDATION

Do not prescribe sodium valproate to women of childbearing age.

STRONG

Rationale

Based on evidence of substantial increases in absolute risk of major malformation (from 28 to 88 per 1,000), cardiac malformation (from 6 to 29 per 1,000) and adverse cognitive outcomes (very low to low quality).

References: (Bromley et al 2014; Weston et al 2016)

Implications for implementation

This supports the need for education and training for health professionals about the danger of use of sodium valproate among women of childbearing age and provision of clear information to women.

D Psychosocial assessment and screening

The following pages include tools for use in psychosocial assessment and screening for depression. These are followed by guides to scoring the tools.

Edinburgh Postnatal Depression Scale

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
-

Calculating a score on the Edinburgh Postnatal Depression Scale

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)

Antenatal (Psychosocial) Risk Questionnaire (ANRQ) – Client

V.2004 (Updated 2017) © M-P Austin

The questions below are designed to help you and your clinician understand whether you may benefit from some extra support during this time of change. You may find some questions challenging, but please choose the answers that best apply to you. There are no right or wrong answers.

Please complete all questions, unless instructed to SKIP a question. Once you have completed the questions, your clinician will discuss your responses with you. If you have any concerns about any of the questions, please let your clinician know.

Total

Q1. Have you ever had a period of 2 weeks or more when you felt particularly worried, miserable or depressed?

No

Yes

If No, skip to **Q1.c.**

If Yes, please answer **Q1.a., Q1.b. and Q1.c.,**

If Yes, did this:

Q1.a. Seriously interfere with your work or your relationships with friends and family?

Not at all

A little

Somewhat

Quite a lot

Very much

Q1.b. Lead you to seek professional help?

Did you see a:

psychiatrist psychologist/counsellor GP

Did you take tablets/herbal medicine? No Yes

No

Yes

If yes, name of professional:

If yes, list medication(s):

Q1.c. Do you have **any other history of mental health problems?** (e.g. eating disorders, psychosis, bipolar, schizophrenia) No Yes

If yes, list other mental health problems:

Q2. Is your relationship with your partner an emotionally supportive one?

Very much

Quite a lot

Somewhat

A little

Not at all

No partner

Q3. Have you had any stresses, changes or losses in the last 12 months? (e.g. only: separation, domestic violence, job loss, bereavement etc.)

No

Yes

If No, skip to **Q4.**

If Yes, please answer **Q3.a.,**

If yes, please specify:

If Yes:

Q3.a. How distressed were you by these stresses, changes or losses?

Not at all

A little

Somewhat

Quite a lot

Very much

Q4. Would you generally consider yourself a worrier?

Not at all

A little

Somewhat

Quite a lot

Very much

Q5. In general, do you become upset if you do not have order in your life? (e.g. regular timetable, tidy house)

Not at all

A little

Somewhat

Quite a lot

Very much

Q6. Do you feel you will have people you can depend on for support with your baby? Very much Quite a lot Somewhat A little Not at all

Now you are having a baby, you may be starting to think about your own childhood and what it was like:

Q7. Were you emotionally abused *when you were growing up*? No Yes

Q8. Have you **ever** been sexually or physically abused? No Yes

Q9. *When you were growing up*, did you feel your mother was emotionally supportive of you? Very much Quite a lot Somewhat A little Not at all No Mother

Do you have any other concerns that you would like to talk about today? _____

Antenatal (Psychosocial) Risk Questionnaire (ANRQ) Clinician Information and Scoring Template

V.2004 (Updated 2017) © M-P Austin. For permission to use please email: m.austin@unsw.edu.au

Brief Scoring instructions & Interpretation of Results

- There are a maximum of 12 scored items. Based on the scoring instructions, place individual questions scores in the score box on the right hand side.
- Add up the maximum 12 scored items and place the Total Score in the box at the top of the questionnaire.
- Total scores range from 5-60. A higher score indicates greater psychosocial risk.

Women are at **increased psychosocial risk** if **ANY** of the following criteria are met:

- > Total ANRQ score of 23 or more;
- > Significant mental health history: If Q1 = 5 (Yes **AND** [Q1.a ≥ 4 (Quite A Lot/Very Much) **OR** Q1.b = 5 (Yes)]);
- > History of abuse: If Q7 = 5 (Yes) **OR** Q8 = 5 (Yes).

Instructions for women identified as at 'increased risk' (as per above):

- Explore psychosocial risk further as needed;
- Discuss the ANRQ and depression screening¹ results with the woman and establish a care plan with her as appropriate.

1. NOTE: The ANRQ should be administered with a depression screening measure (e.g., Edinburgh Depression Scale) to assess for possible current depression.

TOTAL SCORE (5-60)

Total

Q1. Have you ever had a period of 2 weeks or more when you felt particularly worried, miserable or depressed?

No
0

If No, skip to Q1.c.

Yes
5

If Yes, please answer Q1.a., Q1.b. and Q1.c.,

***SCORE Q1.A AND Q1.B ONLY IF Q1 = 5 (YES)**

If Yes, did this:

Q1.a. Seriously interfere with your work and your relationships with friends or family?

Not at all
1

A little
2

Somewhat
3

Quite a lot
4

Very much
5

Q1.b. Lead you to seek professional help?

No
0

Yes
5

Did you see a:

psychiatrist psychologist/counsellor GP

If yes, name of professional:

Did you take tablets/herbal medicine? No Yes

If yes, list medication(s):

Q1.c. Do you have **any other history of mental health problems?** (e.g. eating disorders, psychosis, bipolar, schizophrenia) No Yes

If yes, list other mental health problems:

UNSCORED

Q2. Is your relationship with your partner an emotionally supportive one?

Very much
1

Quite a lot
2

Somewhat
3

A little
4

Not at all
5

No partner
5

Q3. Have you had any stresses, changes or losses *in the last 12 months?* (e.g. only: separation, domestic violence, job loss, bereavement etc.)

No **0** Yes **5**

If No, skip to **Q4.** **If Yes,** please answer **Q3.a.,**

If yes, please specify:

***SCORE Q3.A ONLY IF Q3 = 5 (YES)**

If Yes:

Q3.a. How distressed were you by these stresses, changes or losses?

Not at all **1** A little **2** Somewhat **3** Quite a lot **4** Very much **5**

Q4. Would you generally consider yourself a worrier?

Not at all **1** A little **2** Somewhat **3** Quite a lot **4** Very much **5**

Q5. In general, do you become upset if you do not have order in your life? (e.g. regular timetable, tidy house)

Not at all **1** A little **2** Somewhat **3** Quite a lot **4** Very much **5**

Q6. Do you feel you will have people you can depend on for support with your baby?

Very much **1** Quite a lot **2** Somewhat **3** A little **4** Not at all **5**

Now you are having a baby, you may be starting to think about your own childhood and what it was like:

Q7. Were you emotionally abused *when you were growing up?*

No **0** Yes **5**

Q8. Have you **ever** been sexually or physically abused?

No **0** Yes **5**

Q9. *When you were growing up,* did you feel your mother was emotionally supportive of you?

Very much **1** Quite a lot **2** Somewhat **3** A little **4** Not at all **5** No Mother **5**

Do you have any other concerns that you would like to talk about today? _____

Glossary

For the purposes of this Guideline, the following 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.

Agranulocytosis: An acute condition involving a severely lowered white blood cell count, most commonly of neutrophils. Also known as agranulosis or granulopenia.

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 moderate to severe depression and dysthymia. Antidepressants include selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), monoamine oxidase inhibitors (MAOIs) and tricyclic antidepressants (TCAs).

Antihistamines: Medications that oppose the activity of histamine receptors and are used in the treatment of, among other things, insomnia.

Antipsychotics: Medications most commonly, but not exclusively, used to treat psychosis.

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).

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

Borderline personality disorder: A condition characterised by a pervasive pattern of instability of emotions, relationships, sense of identity and poor impulse control that is consistently associated with severe functional impairment.

Catatonia: An abnormality of movement and behaviour arising from a disturbed mental state (typically schizophrenia).

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: Feelings of sadness and/or a loss of interest in activities once enjoyed, which can lead to a variety of emotional and physical problems and decrease a person's ability to function at work and at home. Depression symptoms vary from mild to severe.

Dialectical behaviour therapy: A cognitive behavioural treatment that was originally developed to treat chronically suicidal individuals diagnosed with borderline personality disorder, which is now an accepted psychological treatment for this population.

Directive counselling: An intervention incorporating elements of supportive listening and history taking and techniques of problem clarification, goal formation, problem solving and partner sessions, delivered individually or in a group format.

Electroconvulsive therapy: A procedure used to treat certain psychiatric conditions. It involves passing a carefully controlled electric current through the brain, which affects the brain's activity and aims to relieve severe depressive and psychotic symptoms.

Emotional dysregulation: a term used by clinicians to refer to an emotional response that is poorly modulated, and does not fall within the conventionally accepted range of emotive response. Emotional dysregulation may be referred to as labile mood (marked fluctuation of mood), mood swings, or mood or affective instability.

Facilitated self-help: A psychological intervention typically based on cognitive behavioural principles that seeks to equip people with strategies and techniques to begin to overcome and manage their psychological difficulties. Self-help usually provides information in the form of books or other written materials that include psychoeducation about the problem and describe techniques to overcome it. A therapist or a computer-based system (stand alone or web based) assists the individual in using the materials.

Generalised anxiety disorder: Feeling anxious about a wide variety of things on most days over a long period of time (e.g. 6 months).

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

Mental health (or psychiatric) condition: Condition fulfilling diagnostic criteria (depression, anxiety disorder, bipolar disorder, postpartum 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.

Mentalisation-based therapy: An integrative form of psychotherapy, bringing together aspects of psychodynamic, cognitive-behavioural, systemic and ecological approaches designed for the treatment of borderline personality disorder.

Mindfulness training: Mindfulness-based cognitive therapy is intended to enable people to learn to become more aware of the bodily sensations, thoughts and feelings associated with depressive relapse, and to relate constructively to these experiences. It is based on theoretical and empirical work demonstrating that depressive relapse is associated with the reinstatement of automatic modes of thinking, feeling and behaving that are counterproductive in contributing to and maintaining depressive relapse and recurrence (for example, self-critical thinking and avoidance) (NICE 2015).

Mixed depression: This term is not used in this Guideline but is used in the accompanying technical report to describe minor or major depression.

Mood stabilisers: Medications used to treat bipolar disorder.

Mother-infant relationship interventions: Interventions that aim to improve the relationship between the mother and infant (NICE 2015). These interventions are based on a psychological theory about the nature of attachment between the mother and infant and typically involve observations of mother–infant interactions, feedback (often video-based), modelling and cognitive restructuring. The primary goal is to enhance maternal sensitivity to child behavioural cues and awareness of the child’s developing skills and needs.

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

Obsessive compulsive disorder: Ongoing unwanted/intrusive thoughts and fears that cause anxiety (obsessions) and a need to carry out certain rituals in order to feel less anxious (compulsions).

Panic disorder: Frequent attacks and intense feelings of anxiety that seem like they cannot be brought under control; this may go on to be associated with avoidance of certain situations (e.g. going into crowded places).

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

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

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

Post-traumatic birth counselling: An intervention that aims to: explain to women what happened in the birth; give the woman an option to discuss labour, birth, and post-birth experiences; and to answer any questions she has.

Post-traumatic stress disorder: Bursts of anxiety any time from one month after experiencing a traumatic event (e.g. a traumatic birth, sexual assault or violence).

Postnatal depression: Depression experienced in the postnatal period.

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

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

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: a structured educational treatment (often offered in groups), which may focus on preparation for childbirth (antenatal) or practical aspects of childcare (postnatal) but also includes a specific mental health component with information about common mental health conditions in the antenatal and/or postnatal period (NICE 2015). These interventions are often informed by psychological principles and use techniques such as cognitive restructuring, pleasant event scheduling, role play, guided relaxation, and homework exercises.

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: 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 conditions 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.

Schema-focussed psychotherapy

Schizophrenia: A complex condition of brain function with wide variation in symptoms and signs, and in the course of the illness. The experiential 'core' of schizophrenia has been described as a disturbance involving the most basic functions that give the person a feeling of individuality, uniqueness and self-direction (Galletly et al 2016).

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.

Social phobia: Intense fear of criticism, being embarrassed or humiliated, even in everyday situations (e.g. eating in public or making small talk).

Social support group: A system of giving and receiving help founded on key principles of respect, shared responsibility, and mutual agreement of what is helpful and is primarily in one direction with a clearly defined peer supporter and recipient of support (NICE 2015). Peer volunteers who are mothers themselves and also have a history of antenatal or postnatal mental health problems are recruited and trained to deliver interventions. These interventions can include befriending and mentoring. Support groups also provide an opportunity for peer support but are usually facilitated by a healthcare professional and discussions are usually structured around a series of pre-defined topic areas (for instance, transition to motherhood, postnatal stress management, co-parenting challenges). However, the primary goal of these interventions is to enable mutual support by bringing women into contact with other women who are having similar experiences and providing opportunities for sharing problems and solutions.

Sociocultural: Relating to both social and cultural factors.

Specific phobia: Fearful feelings about a particular object or situation (e.g. going near an animal, flying on a plane or receiving an injection).

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

Systems training for emotional predictability and problem solving

Transference-focussed psychotherapy: An evidence-based psychodynamic therapy designed for patients with personality disorders.

Trauma-informed care: Trauma-informed care and practice is a strengths-based framework grounded in an understanding of and responsiveness to the impact of trauma, that emphasises physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment (Kezelman & Stavropoulos 2012).

Yoga: a system of gentle exercises, with the aim of attaining bodily or mental control and wellbeing (Marc et al 2011)

Abbreviations and acronyms

ACM	Australian College of Midwives	PP	practice point
ACMHN	Australian College of Mental Health Nurses	PRQ	Pregnancy Risk Questionnaire
AIHW	Australian Institute of Health and Welfare	PTSD	post-traumatic stress disorder
ALPHA	Antenatal Psychosocial Health Assessment	RACGP	Royal Australian College of General Practitioners
ANRQ	AnteNatal Risk Questionnaire	RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
AOR	adjusted odds ratio	RANZCP	Royal Australian and New Zealand College of Psychiatrists
APS	Australian Psychological Society	RCT	randomised clinical trial
AWHN	Australian Women's Health Network	SFT	schema-focused psychotherapy
CBR	consensus-based recommendation	SNRI	serotonin-norepinephrine reuptake inhibitor
CBT	cognitive behavioural therapy	SR	systematic review
CHF	Consumers Health Forum	SSRI	selective serotonin reuptake inhibitor
CI	confidence interval	STAI	State-Trait Anxiety Inventory
COPE	Centre of Perinatal Excellence	STEPPS	systems training for emotional predictability and problem solving
DALY	disability-adjusted life year	TCA	tricyclic antidepressants
DASS	Depression, Anxiety and Stress Scale	TFP	transference-focussed psychotherapy
DBT	dialectical behaviour therapy	TGA	Therapeutic Goods Administration
DSM	Diagnostic and Statistical Manual of Mental Disorders		
EBR	evidence-based recommendation		
ECT	electroconvulsive therapy		
EPDS	Edinburgh Postnatal Depression Scale		
EPDS-3A	EPDS items 3, 4 and 5		
EWG	Expert Working Group		
GAD-7	Generalised Anxiety Disorder 7-Item Scale		
GHQ	General Health Questionnaire		
GP	general practitioner		
HADS	Hospital Anxiety and Depression Scale		
IPT	interpersonal psychotherapy		
IQ	intelligence quotient		
K10	Kessler Psychological Distress Scale		
MAOIs	monoamine oxidase inhibitors		
MBT	mentalisation-based therapy		
MCaFNA	Maternal Child and Family Health Nursing Association		
NHMRC	National Health and Medical Research Council		
NICE	National Institute for Health and Clinical Excellence (UK)		
NPPH	neonatal persistent pulmonary hypertension		
OR	odds ratio		
PANDA	Perinatal Anxiety and Depression Australia		
PHQ	Patient Health Questionnaire		

References

- 1st 1001 Days APPG (2015) *Building Great Britons. Conception to Age 2*. London: First 1001 Days All Parties Parliamentary Group.
- Abiodun OA, Adetoro OO, Ogunbode OO (1993) Psychiatric morbidity in a pregnant population in Nigeria. *Gen Hosp Psychiatry* 15(2): 125–8.
- Aderibigbe YA & Gureje O (1992) The validity of the 28-item General Health Questionnaire in a Nigerian antenatal clinic. *Soc Psychiatry Psychiatr Epidemiol* 27(6): 280–3.
- AIHW (2014) *Effective strategies to strengthen the mental health and wellbeing of Aboriginal and Torres Strait Islander people*. Canberra: Australian Institute of Health and Welfare.
- AIHW (2015) *The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples 2015. Cat. no. IHW 147*. Canberra: Australian Institute of Health and Welfare.
- Almeida ND, Basso O, Abrahamowicz M et al (2016) Risk of miscarriage in women receiving antidepressants in early pregnancy, correcting for induced abortions. *Epidemiology* 27(4): 538–46.
- Asenhed L, Kilstam J, Alehagen S et al (2014) Becoming a father is an emotional roller coaster – an analysis of first-time fathers' blogs. *J Clin Nurs* 23(9–10): 1309–17.
- Austin M-P & Kingston D (2016) Psychosocial assessment and depression screening in the perinatal period: Benefits, challenges and implementation. In: *Joint Care of Parents and Infants in Perinatal Psychiatry*. Eds: A. L. Sutter-Dallay, N. M. C. Glangeaud-Freudenthal, A. Guedeney and A. Riecher-Rössler: 167–95.
- Austin MP, Hadzi-Pavlovic D, Saint K et al (2005) Antenatal screening for the prediction of postnatal depression: validation of a psychosocial Pregnancy Risk Questionnaire. *Acta Psychiatr Scand* 112(4): 310–17.
- Austin MP, Hadzi-Pavlovic D, Priest SR et al (2010) Depressive and anxiety disorders in the postpartum period: how prevalent are they and can we improve their detection? *Arch Womens Ment Health* 13(5): 395–401.
- Austin MP, Colton J, Priest S et al (2013) The antenatal risk questionnaire (ANRQ): acceptability and use for psychosocial risk assessment in the maternity setting. *Women Birth* 26(1): 17–25.
- Austin MP, Fisher J, Reilly N (2015) Psychosocial assessment and integrated perinatal care. In: *Identifying Perinatal Depression and Anxiety: Evidence-based Practice in Screening, Psychosocial Assessment and Management*. Eds: A. Gemmill and J. Milgrom.
- Australian Health Ministers' Advisory Council (2012) *Clinical Practice Guidelines: Antenatal care – Module I*. Canberra: Australian Government Department of Health.
- Australian Health Ministers' Advisory Council (2014) *Clinical Practice Guidelines: Antenatal care – Module II*. Canberra: Australian Government Department of Health.
- AWHN (2008) *Women's Health: The New National Agenda: AWHN Position Paper March 2008*. Melbourne: Australian Women's Health Network.
- Bales M, Pambrun E, Melchior M et al (2015) Prenatal psychological distress and access to mental health care in the ELFE cohort. *Eur Psychiatry* 30(2): 322–8.
- Ban L, Tata LJ, West J et al (2012) Live and non-live pregnancy outcomes among women with depression and anxiety: a population-based study. *PLoS One* 7(8): e43462.
- Ban L, Gibson JE, West J et al (2014) Maternal depression, antidepressant prescriptions, and congenital anomaly risk in offspring: a population-based cohort study. *BJOG* 121(12): 1471–81.
- Berard A, Zhao JP, Sheehy O (2015) Sertraline use during pregnancy and the risk of major malformations. *Am J Obstet Gynecol* 212(6): 795 e1–95 e12.
- beyondblue (2011) *Clinical Practice Guidelines: Depression and Related Disorders – Anxiety, Bipolar Disorder and Puerperal Psychosis – in the Perinatal Period. A Guideline for Primary Care Health Professionals*. Melbourne: beyondblue.
- beyondblue (2016) SMS4dads. Accessed: 27 May 2017.
- Blackmore ER, Carroll J, Reid A et al (2006) The use of the Antenatal Psychosocial Health Assessment (ALPHA) tool in the detection of psychosocial risk factors for postpartum depression: a randomized controlled trial. *J Obstet Gynaecol Can* 28(10): 873–8.
- Blankley G, Galbally M, Snellen M et al (2015) Borderline Personality Disorder in the perinatal period: early infant and maternal outcomes. *Australas Psychiatry* 23(6): 688–92.

- Bowen A, Bowen R, Butt P et al (2012) Patterns of depression and treatment in pregnant and postpartum women. *Can J Psychiatry* 57(3): 161–7.
- Brealey SD, Hewitt C, Green JM et al (2010) Screening for postnatal depression – is it acceptable to women and healthcare professionals? A systematic review and meta-synthesis. *Journal of Reproductive and Infant Psychology* 28(4): 328–44.
- Brockington IF, Fraser C, Wilson D (2006) The Postpartum Bonding Questionnaire: a validation. *Arch Womens Ment Health* 9(5): 233–42.
- Bromley R, Weston J, Adab N et al (2014) Treatment for epilepsy in pregnancy: neurodevelopmental outcomes in the child. *Cochrane Database Syst Rev*(10): CD010236.
- Brown SJ, McDonald EA, Krastev AH (2008) Fear of an intimate partner and women's health in early pregnancy: findings from the Maternal Health Study. *Birth* 35(4): 293–302.
- Buist A & Bilsztra J (2006) *The beyondblue National Postnatal Screening Program, Prevention and Early Intervention 2001–2005, Final Report. Vol 1: National Screening Program*. Melbourne: beyondblue.
- Byatt N, Simas TA, Lundquist RS et al (2012) Strategies for improving perinatal depression treatment in North American outpatient obstetric settings. *J Psychosom Obstet Gynaecol* 33(4): 143–61.
- Campbell A, Hayes B, Buckby B (2008) Aboriginal and Torres Strait Islander women's experience when interacting with the Edinburgh Postnatal Depression Scale: a brief note. *Aust J Rural Health* 16(3): 124–31.
- Carroll JC, Reid AJ, Biringier A et al (2005) Effectiveness of the Antenatal Psychosocial Health Assessment (ALPHA) form in detecting psychosocial concerns: a randomized controlled trial. *CMAJ* 173(3): 253–9.
- CATSINM (2014) *Cultural Safety Position Statement*. Canberra: Congress of Aboriginal and Torres Strait Islander Nurses and Midwives.
- Chew-Graham CA, Sharp D, Chamberlain E et al (2009) Disclosure of symptoms of postnatal depression, the perspectives of health professionals and women: a qualitative study. *BMC Fam Pract* 10: 7.
- CHF (2004) *Charter of Health Consumer Rights – A Summary of Your Health Rights and Responsibilities*. Canberra: Consumers Health Forum of Australia.
- Clifton A & Pilkonis PA (2007) Evidence for a single latent class of Diagnostic and Statistical Manual of Mental Disorders borderline personality pathology. *Compr Psychiatry* 48(1): 70–8.
- Coates AO, Schaefer CA, Alexander JL (2004) Detection of postpartum depression and anxiety in a large health plan. *J Behav Health Serv Res* 31(2): 117–33.
- Cohen LS, Altshuler LL, Harlow BL et al (2006) Relapse of major depression during pregnancy in women who maintain or discontinue antidepressant treatment. *JAMA* 295(5): 499–507.
- Cook F, Giallo R, Petrovic Z et al (2017) Depression and anger in fathers of unsettled infants: A community cohort study. *J Paediatr Child Health* 53(2): 131–35.
- Cooklin AR, Giallo R, Strazdins L et al (2015) What matters for working fathers? Job characteristics, work-family conflict and enrichment, and fathers' postpartum mental health in an Australian cohort. *Soc Sci Med* 146: 214–22.
- Cox JL, Holden JM, Sagovsky R (1987) Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiatry* 150: 782–6.
- Cristea IA, Gentili C, Cotet CD et al (2017) Efficacy of psychotherapies for borderline personality disorder: a systematic review and meta-analysis. *JAMA Psychiatry* 74(4): 319–28.
- Danaher BG, Milgrom J, Seeley JR et al (2012) Web-Based Intervention for Postpartum Depression: Formative Research and Design of the MomMoodBooster Program. *JMIR Res Protoc* 1(2): e18.
- Danaher BG, Milgrom J, Seeley JR et al (2013) MomMoodBooster web-based intervention for postpartum depression: feasibility trial results. *J Med Internet Res* 15(11): e242.
- Darwin Z, Galdas P, Hinchliff S et al (2017) Fathers' views and experiences of their own mental health during pregnancy and the first postnatal year: a qualitative interview study of men participating in the UK Born and Bred in Yorkshire (BaBY) cohort. *BMC Pregnancy Childbirth* 17(1): 45.
- Davis RN, Davis MM, Freed GL et al (2011) Fathers' depression related to positive and negative parenting behaviors with 1-year-old children. *Pediatrics* 127(4): 612–8.
- Diav-Citrin O, Shechtman S, Tahover E et al (2014) Pregnancy outcome following in utero exposure to lithium: a prospective, comparative, observational study. *Am J Psychiatry* 171(7): 785–94.
- Dimidjian S, Felder JN, Brown AP et al (2016) Staying well during pregnancy and the postpartum: a pilot randomized trial of mindfulness-based cognitive therapy for the prevention of depressive relapse/recurrence. *J Consult Clin Psych* 84(2): 134–45.
- DoH (2018) *Clinical Practice Guidelines: Pregnancy Care*. 2018 Edition. Canberra: Australian Government Department of Health.

- Dudley M, Roy K, Kelk N et al (2001) Psychological correlates of depression in fathers and mothers in the first postnatal year. *J Reprod Infant Psych* 19(3): 187–202.
- El-Den S, O'Reilly CL, Chen TF (2015) A systematic review on the acceptability of perinatal depression screening. *J Affect Disord* 188: 284–303.
- Elmir R & Schmied V (2016) A meta-ethnographic synthesis of fathers' experiences of complicated births that are potentially traumatic. *Midwifery* 32: 66–74.
- Eyden J, Winsper C, Wolke D et al (2016) A systematic review of the parenting and outcomes experienced by offspring of mothers with borderline personality pathology: Potential mechanisms and clinical implications. *Clin Psychol Rev* 47: 85–105.
- Fairbrother N, Janssen P, Antony MM et al (2016) Perinatal anxiety disorder prevalence and incidence. *J Affect Disord* 200: 148–55.
- Fellmeth G, Fazel M, Plugge E (2017) Migration and perinatal mental health in women from low- and middle-income countries: a systematic review and meta-analysis. *BJOG* 124(5): 742–52.
- Fletcher R, Garfield CF, Matthey S (2015) Fathers' perinatal mental health. In: *Identifying Perinatal Depression and Anxiety: Evidence-Based Practice in Screening, Psychosocial Assessment and Management*. Eds: J. Milgrom and A. Gemmill. West Sussex UK: John Wiley & Son: 165–76.
- Fletcher R, May C, Lambkin F-K et al (2016) SMS4dads: Providing information and support to new fathers through mobile phones – a pilot study. *Advances in Mental Health*. dx.doi.org/10.1080/18387357.2016.1245586.
- Fletcher RJ, Feeman E, Garfield C et al (2011) The effects of early paternal depression on children's development. *Med J Aust* 195(11-12): 685–9.
- Fletcher RJ, Maharaj ON, Fletcher Watson CH et al (2013) Fathers with mental illness: implications for clinicians and health services. *Med J Aust* 199(3 Suppl): S34–6.
- Flynn HA, Henshaw E, O'Mahen H et al (2010) Patient perspectives on improving the depression referral processes in obstetrics settings: a qualitative study. *Gen Hosp Psychiatry* 32(1): 9–16.
- Fossati A, Gratz KL, Somma A et al (2016) The mediating role of emotion dysregulation in the relations between childhood trauma history and adult attachment and borderline personality disorder features: A study of Italian nonclinical participants. *J Pers Disord* 30(5): 653–76.
- Furu K, Kieler H, Haglund B et al (2015) Selective serotonin reuptake inhibitors and venlafaxine in early pregnancy and risk of birth defects: population based cohort study and sibling design. *BMJ* 350: h1798.
- Galletly C, Castle D, Dark F et al (2016) Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for the management of schizophrenia and related disorders. *Aust N Z J Psychiatry* 50(5): 410–72.
- Gemmill AW, Leigh B, Ericksen J et al (2006) A survey of the clinical acceptability of screening for postnatal depression in depressed and non-depressed women. *BMC Public Health* 6: 211.
- Giallo R, D'Esposito F, Cooklin A et al (2013) Psychosocial risk factors associated with fathers' mental health in the postnatal period: results from a population-based study. *Soc Psychiatry Psychiatr Epidemiol* 48(4): 563–73.
- Giallo R, Cooklin A, Nicholson JM (2014a) Risk factors associated with trajectories of mothers' depressive symptoms across the early parenting period: an Australian population-based longitudinal study. *Arch Womens Ment Health* 17(2): 115–25.
- Giallo R, D'Esposito F, Cooklin A et al (2014b) Factors associated with trajectories of psychological distress for Australian fathers across the early parenting period. *Soc Psychiatry Psychiatr Epidemiol* 49(12): 1961–71.
- Giallo R, Dunning M, Gent A (2017a) Attitudinal barriers to help-seeking and preferences for mental health support among Australian fathers. *J Reprod Infant Psych* 35: 236–47.
- Giallo R, Pilkington P, McDonald E et al (2017b) Physical, sexual and social health factors associated with the trajectories of maternal depressive symptoms from pregnancy to 4 years postpartum. *Soc Psychiatry Psychiatr Epidemiol* 52(7): 815–28.
- Giardinelli L, Innocenti A, Benni L et al (2012) Depression and anxiety in perinatal period: prevalence and risk factors in an Italian sample. *Arch Womens Ment Health* 15(1): 21–30.
- Glenn CR & Klonsky ED (2009) Emotion dysregulation as a core feature of borderline personality disorder. *J Pers Disord* 23(1): 20–8.
- Goldin Evans M, Phillippi S, Gee RE (2015) Examining the screening practices of physicians for postpartum depression: implications for improving health outcomes. *Womens Health Issues* 25(6): 703–10.
- Gong H, Ni C, Shen X et al (2015) Yoga for prenatal depression: a systematic review and meta-analysis. *BMC Psychiatry* 15: 14.
- Gould JF, Smithers LG, Makrides M (2013) The effect of maternal omega-3 (n-3) LCPUFA supplementation during pregnancy on early childhood cognitive and visual development: a systematic review and meta-analysis of randomized controlled trials. *Am J Clin Nutr* 97(3): 531–44.

- Grant KA, McMahon C, Austin MP (2008) Maternal anxiety during the transition to parenthood: a prospective study. *J Affect Disord* 108(1-2): 101-11.
- Gratz K & Roemer L (2004) Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *J Psychopathol Behav Assess* 26(1): 41-54.
- Grigoriadis S, de Camps Meschino D, Barrons E et al (2011) Mood and anxiety disorders in a sample of Canadian perinatal women referred for psychiatric care. *Arch Womens Ment Health* 14(4): 325-33.
- Grigoriadis S, VonderPorten EH, Mamisashvili L et al (2013) The impact of maternal depression during pregnancy on perinatal outcomes: a systematic review and meta-analysis. *J Clin Psychiatry* 74(4): e321-41.
- Grzeskowiak LE, Gilbert AL, Morrison JL (2012) Neonatal outcomes after late-gestation exposure to selective serotonin reuptake inhibitors. *J Clin Psychopharmacol* 32(5): 615-21.
- Hayes B, Geia LK, Egan ME (2006) *Development and evaluation of the Edinburgh Postnatal Depression Scale for Aboriginal and Torres Strait Islander Women in North Queensland*. Proceedings of the 1st Aboriginal and Torres Strait Islander Perinatal and Infant Mental Health Conference: Working with 'Ghosts in the Nursery', Sydney.
- Hayes RM, Wu P, Shelton RC et al (2012) Maternal antidepressant use and adverse outcomes: a cohort study of 228,876 pregnancies. *Am J Obstet Gynecol* 207(1): 49 e1-9.
- Henry C, Mitropoulou V, New AS et al (2001) Affective instability and impulsivity in borderline personality and bipolar II disorders: similarities and differences. *J Psychiatr Res* 35(6): 307-12.
- Hight N, Stevenson A, Purtell C et al (2014) Qualitative insights into women's personal experiences of perinatal depression and anxiety. *Women Birth* 27(3): 179-84.
- Hight NJ & Bilbao F (2015) *The Western Perinatal Emotional Health Pilot Program: Final Report*. North Western Mental Health.
- Humphrey MD, Bonello MR, Chughtai A et al (2015) *Maternal Deaths in Australia 2008-2012*. Canberra: Australian Institute of Health and Welfare.
- Humphrey MD (2016) Maternal mortality trends in Australia. *Med J Aust* 205(8): 344-46.
- Huybrechts KF, Palmsten K, Avorn J et al (2014) Antidepressant use in pregnancy and the risk of cardiac defects. *N Engl J Med* 370(25): 2397-407.
- Huybrechts KF, Bateman BT, Palmsten K et al (2015) Antidepressant use late in pregnancy and risk of persistent pulmonary hypertension of the newborn. *JAMA* 313(21): 2142-51.
- Huybrechts KF, Hernandez-Diaz S, Patorno E et al (2016) Antipsychotic use in pregnancy and the risk for congenital malformations. *JAMA Psychiatry* 73(9): 938-46.
- Jiang HY, Xu LL, Li YC et al (2016) Antidepressant use during pregnancy and risk of postpartum hemorrhage: A systematic review and meta-analysis. *J Psychiatr Res* 83: 160-67.
- Kar S, Wong M, Rogozinska E et al (2016) Effects of omega-3 fatty acids in prevention of early preterm delivery: a systematic review and meta-analysis of randomized studies. *Eur J Obstet Gynecol Reprod Biol* 198: 40-6.
- Kezelman CA & Stavropoulos PA (2012) *Practice Guidelines for Treatment of Complex Trauma and Trauma Informed Care and Service Delivery*. Sydney: Blue Knot Foundation.
- Kieviet N, Hoppenbrouwers C, Dolman KM et al (2015) Risk factors for poor neonatal adaptation after exposure to antidepressants in utero. *Acta Paediatr* 104(4): 384-91.
- Kim JJ, La Porte LM, Corcoran M et al (2010) Barriers to mental health treatment among obstetric patients at risk for depression. *Am J Obstet Gynecol* 202(3): 312 e1-5.
- Kingston D, Austin MP, Heaman M et al (2015a) Barriers and facilitators of mental health screening in pregnancy. *J Affect Disord* 186: 350-7.
- Kingston DE, Biringier A, McDonald SW et al (2015b) Preferences for mental health screening among pregnant women: a cross-sectional study. *Am J Prev Med* 49(4): e35-43.
- Kitamura T, Sugawara M, Aoki M et al (1989) Validity of the Japanese version of the GHQ among antenatal clinic attendants. *Psychol Med* 19(2): 507-11.
- Kitamura T, Toda MA, Shima S et al (1994) Validity of the repeated GHQ among pregnant women: a study in a Japanese general hospital. *Int J Psychiatry Med* 24(2): 149-56.
- Kohlhoff J, Hickinbotham R, Knox C et al (2016) Antenatal psychosocial assessment and depression screening in a private hospital. *Aust N Z J Obstet Gynaecol* 56(2): 173-8.

- Kroger C, Vonau M, Kliem S et al (2011) Emotion dysregulation as a core feature of borderline personality disorder: comparison of the discriminatory ability of two self-rating measures. *Psychopathology* 44(4): 253–60.
- Kruske S, Kildea S, Barclay L (2006) Cultural safety and maternity care for Aboriginal and Torres Strait Islander Australians. *Women Birth* 19(3): 73–77.
- Kryzanasuskas M (2005) Are liability issues a barrier to multidisciplinary collaborative maternity care? *Can J Midwif Res Pract* 43(3): 21–23.
- Lakshmana R, Hiscock R, Galbally M et al (2014) Electroconvulsive therapy in pregnancy. In: *Psychopharmacotherapy and Pregnancy. Treatment Efficacy, Risks and Guidelines*. Eds: M. Galbally, M. Snellen and A. Lewis. Heidelberg New York Dordrecht London: Springer.
- Leach LS, Poyser C, Cooklin AR et al (2016) Prevalence and course of anxiety disorders (and symptom levels) in men across the perinatal period: A systematic review. *J Affect Disord* 190: 675–86.
- Lin HC, Chen IJ, Chen YH et al (2010) Maternal schizophrenia and pregnancy outcome: does the use of antipsychotics make a difference? *Schizophr Res* 116(1): 55–60.
- Malhi GS, Bassett D, Boyce P et al (2015) Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for mood disorders. *Aust N Z J Psychiatry* 49(12): 1087–206.
- Malm H, Sourander A, Gissler M et al (2015) Pregnancy complications following prenatal exposure to ssris or maternal psychiatric disorders: results from population-based national register data. *Am J Psychiatry* 172(12): 1224–32.
- Marc I, Toureche N, Ernst E et al (2011) Mind-body interventions during pregnancy for preventing or treating women's anxiety. *Cochrane Database Syst Rev*(7): CD007559.
- Marcus SM, Flynn HA, Blow FC et al (2003) Depressive symptoms among pregnant women screened in obstetrics settings. *J Womens Health (Larchmt)* 12(4): 373–80.
- Margulis AV, Abou-Ali A, Strazzeri MM et al (2013) Use of selective serotonin reuptake inhibitors in pregnancy and cardiac malformations: a propensity-score matched cohort in CPRD. *Pharmacoepidemiol Drug Saf* 22(9): 942–51.
- Marley JV, Kotz J, Engelke C et al (2017) Validity and Acceptability of Kimberley Mum's Mood Scale to Screen for Perinatal Anxiety and Depression in Remote Aboriginal Health Care Settings. *PLoS One* 12(1): e0168969.
- Matthey S, Barnett B, Ungerer J et al (2000) Paternal and maternal depressed mood during the transition to parenthood. *J Affect Disord* 60(2): 75–85.
- Matthey S, Barnett B, Kavanagh DJ et al (2001) Validation of the Edinburgh Postnatal Depression Scale for men, and comparison of item endorsement with their partners. *J Affect Disord* 64(2-3): 175–84.
- Matthey S, White T, Phillips J et al (2005) Acceptability of routine antenatal psychosocial assessments to women from English and non-English speaking backgrounds. *Arch Womens Ment Health* 8(3): 171–80.
- Matthey S, Fisher J, Rowe H (2013a) Using the Edinburgh postnatal depression scale to screen for anxiety disorders: conceptual and methodological considerations. *J Affect Disord* 146(2): 224–30.
- Matthey S, Valenti B, Souter K et al (2013b) Comparison of four self-report measures and a generic mood question to screen for anxiety during pregnancy in English-speaking women. *J Affect Disord* 148(2-3): 347–51.
- Megnín-Viggars O, Symington I, Howard LM et al (2015) Experience of care for mental health problems in the antenatal or postnatal period for women in the UK: a systematic review and meta-synthesis of qualitative research. *Arch Womens Ment Health* 18(6): 745–59.
- Mehta TM & Van Lieshout RJ (2017) A review of the safety of clozapine during pregnancy and lactation. *Arch Womens Ment Health* 20(1): 1–9.
- Merikangas KR, Jin R, He JP et al (2011) Prevalence and correlates of bipolar spectrum disorder in the world mental health survey initiative. *Arch Gen Psychiatry* 68(3): 241–51.
- Milgrom J, Danaher BG, Gemmill AW et al (2016) Internet Cognitive Behavioral Therapy for Women With Postnatal Depression: A Randomized Controlled Trial of MumMoodBooster. *J Med Internet Res* 18(3): e54.
- Miller L, Shade M, Vasireddy V (2009) Beyond screening: assessment of perinatal depression in a perinatal care setting. *Arch Womens Ment Health* 12(5): 329–34.
- Mitchell AJ & Coyne J (2009) Screening for postnatal depression: barriers to success. *BJOG* 116(1): 11–4.
- Mitchell PB, Johnston AK, Frankland A et al (2013) Bipolar disorder in a national survey using the World Mental Health Version of the Composite International Diagnostic Interview: the impact of differing diagnostic algorithms. *Acta Psychiatr Scand* 127(5): 381–93.
- Molyneaux E, Howard LM, McGeown HR et al (2014) Antidepressant treatment for postnatal depression. *Cochrane Database Syst Rev*(9): CD002018.

- Munk-Olsen T, Laursen TM, Pedersen CB et al (2006) New parents and mental disorders: a population-based register study. *JAMA* 296(21): 2582–9.
- Munk-Olsen T, Laursen TM, Mendelson T et al (2009) Risks and predictors of readmission for a mental disorder during the postpartum period. *Arch Gen Psychiatry* 66(2): 189–95.
- Nakhai-Pour HR, Broy P, Berard A (2010) Use of antidepressants during pregnancy and the risk of spontaneous abortion. *CMAJ* 182(10): 1031–7.
- Navarro P, Ascaso C, Garcia-Esteve L et al (2007) Postnatal psychiatric morbidity: a validation study of the GHQ-12 and the EPDS as screening tools. *Gen Hosp Psychiatry* 29(1): 1–7.
- Newman L (2015) Parents with borderline personality disorder - approaches to early intervention. *Australas Psychiatry* 23(6): 696–8.
- Nguyen TN, Faulkner D, Frayne JS et al (2013) Obstetric and neonatal outcomes of pregnant women with severe mental illness at a specialist antenatal clinic. *Med J Aust* 199(3 Suppl): S26–9.
- NHMRC (2010) *National Guidance on Collaborative Maternity Care*. Canberra: National Health and Medical Research Council.
- NHMRC (2011) *Procedures and Requirements for Meeting the 2011 NHMRC Standard for Clinical Practice Guidelines*. Melbourne: National Health and Medical Research Council.
- NHMRC (2012) *Clinical Practice Guideline for the Management of Borderline Personality Disorder*. Melbourne: National Health and Medical Research Council.
- NHMRC (2013) *Australian Dietary Guidelines*. Canberra: National Health and Medical Research Council.
- NICE (2009; updated 2016) *Depression in Adults: Recognition and Management Clinical Guideline* [CG90]. London: National Institute for Health and Care Excellence.
- NICE (2014) *Psychosis and Schizophrenia in Adults: Prevention and Management. Clinical Guideline* [CG178]. London: National Institute for Health and Care Excellence.
- NICE (2014; updated 2016) *Bipolar Disorder: Assessment and Management. Clinical Guideline* [CG185]. London: National Institute for Health and Care Excellence.
- NICE (2015) *Antenatal and Postnatal Mental Health. The NICE Guideline on Clinical Management and Service Guidance*. London: National Institute for Health and Care Excellence.
- Nott PN & Cutts S (1982) Validation of the 30-item General Health Questionnaire in postpartum women. *Psychol Med* 12(2): 409–13.
- Nulman I, Koren G, Rovet J et al (2015) Neurodevelopment of children prenatally exposed to selective reuptake inhibitor antidepressants: Toronto sibling study. *J Clin Psychiatry* 76(7): e842–7.
- O'Brien AP, McNeil KA, Fletcher R et al (2016) New fathers' perinatal depression and anxiety-treatment options: an integrative review. *Am J Mens Health*.
- O'Donnell KJ, Bugge Jensen A, Freeman L et al (2012) Maternal prenatal anxiety and downregulation of placental 11beta-HSD2. *Psychoneuroendocrinology* 37(6): 818–26.
- Oberlander TF, Warburton W, Misri S et al (2006) Neonatal outcomes after prenatal exposure to selective serotonin reuptake inhibitor antidepressants and maternal depression using population-based linked health data. *Arch Gen Psychiatry* 63(8): 898–906.
- Oberlander TF, Warburton W, Misri S et al (2008a) Effects of timing and duration of gestational exposure to serotonin reuptake inhibitor antidepressants: population-based study. *Br J Psychiatry* 192(5): 338–43.
- Oberlander TF, Warburton W, Misri S et al (2008b) Major congenital malformations following prenatal exposure to serotonin reuptake inhibitors and benzodiazepines using population-based health data. *Birth Defects Res B Dev Reprod Toxicol* 83(1): 68–76.
- PANDA (2012) *The cost of perinatal depression in Australia. Final Report*. Melbourne: Post and Antenatal Depression Association.
- Pare-Miron V, Czuzoj-Shulman N, Oddy L et al (2016) Effect of borderline personality disorder on obstetrical and neonatal outcomes. *Womens Health Issues* 26(2): 190–5.
- Paulson JF, Dauber S, Leiferman JA (2006) Individual and combined effects of postpartum depression in mothers and fathers on parenting behavior. *Pediatrics* 118(2): 659–68.
- Paulson JF & Bazemore SD (2010) Prenatal and postpartum depression in fathers and its association with maternal depression: a meta-analysis. *JAMA* 303(19): 1961–9.
- Paulson JF, Bazemore SD, Goodman JH et al (2016) The course and interrelationship of maternal and paternal perinatal depression. *Arch Womens Ment Health* 19(4): 655–63.

- Petersen I, Evans SJ, Gilbert R et al (2016) Selective serotonin reuptake inhibitors and congenital heart anomalies: comparative cohort studies of women treated before and during pregnancy and their children. *J Clin Psychiatry* 77(1): e36–42.
- Petfield L, Startup H, Droscher H et al (2015) Parenting in mothers with borderline personality disorder and impact on child outcomes. *Evid Based Ment Health* 18(3): 67–75.
- Phiri J, Dietsch E, Bonner A (2010) Cultural safety and its importance for Australian midwifery practice. *Collegian* 17(3): 105–11.
- Quirk SE, Berk M, Pasco JA et al (2016) The prevalence, age distribution and comorbidity of personality disorders in Australian women. *Aust N Z J Psychiatry*.
- Ramchandani P & Psychogiou L (2009) Paternal psychiatric disorders and children's psychosocial development. *Lancet* 374(9690): 646–53.
- Ramos E, St-Andre M, Rey E et al (2008) Duration of antidepressant use during pregnancy and risk of major congenital malformations. *Br J Psychiatry* 192(5): 344–50.
- Reay R, Matthey S, Ellwood D et al (2011) Long-term outcomes of participants in a perinatal depression early detection program. *J Affect Disord* 129(1-3): 94–103.
- Reilly N, Harris S, Loxton D et al (2013a) Referral for management of emotional health issues during the perinatal period: does mental health assessment make a difference? *Birth* 40(4): 297–306.
- Reilly N, Harris S, Loxton D et al (2013b) Disparities in reported psychosocial assessment across public and private maternity settings: a national survey of women in Australia. *BMC Public Health* 13: 632.
- Reilly N, Harris S, Loxton D et al (2014) The impact of routine assessment of past or current mental health on help-seeking in the perinatal period. *Women Birth* 27(4): e20–7.
- Reilly N, Yin C, Monterosso L et al (2015) Identifying psychosocial risk among mothers in an Australian private maternity setting: A pilot study. *Aust N Z J Obstet Gynaecol* 55(5): 453–8.
- Riggs E, Yelland J, Szwarc J et al (2016) Fatherhood in a New Country: A Qualitative Study Exploring the Experiences of Afghan Men and Implications for Health Services. *Birth* 43(1): 86–92.
- Rollans M, Kohlhoff J, Meade T et al (2016) Partner involvement: negotiating the presence of partners in psychosocial assessment as conducted by midwives and child and family health nurses. *Infant Ment Health J* 37(3): 302–12.
- Rominov H, Giallo R, Pilkington P et al (2017) “Getting help for yourself is a way of helping your baby”: Fathers' perceived support needs for mental health and parenting in the perinatal period. *Psych Men Masculinity*.
- Rowe HJ, Holton S, Fisher JR (2013) Postpartum emotional support: a qualitative study of women's and men's anticipated needs and preferred sources. *Aust J Prim Health* 19(1): 46–52.
- Rusner M, Berg M, Begley C (2016) Bipolar disorder in pregnancy and childbirth: a systematic review of outcomes. *BMC Pregnancy Childbirth* 16(1): 331.
- Saccone G, Berghella V, Maruotti GM et al (2015) Omega-3 supplementation during pregnancy to prevent recurrent intrauterine growth restriction: systematic review and meta-analysis of randomized controlled trials. *Ultrasound Obstet Gynecol* 46(6): 659–64.
- Sandall J, Soltani H, Gates S et al (2016) Midwife-led continuity models versus other models of care for childbearing women. *Cochrane Database Syst Rev* 4: CD004667.
- Seymour M, Dunning M, Cooklin A et al (2013) Socio-ecological factors associated with fathers' wellbeing in the early parenting period. *Clin Psych* 18: 63–73.
- Shafiei T, Forster D, McLachlan H et al (2014) *Evaluation of the PANDA National Perinatal Depression Helpline*. Melbourne: LaTrobe University.
- Sharp DJ (1988) Validation of the 30-item General Health Questionnaire in early pregnancy. *Psychol Med* 18(2): 503–7.
- Simon GE, Cunningham ML, Davis RL (2002) Outcomes of prenatal antidepressant exposure. *Am J Psychiatry* 159(12): 2055–61.
- Simpson K & Creehan P (2008) *Perinatal Nursing*. Philadelphia: Lippincott, Williams and Wilson.
- Simpson W, Glazer M, Michalski N et al (2014) Comparative efficacy of the generalized anxiety disorder 7-item scale and the Edinburgh Postnatal Depression Scale as screening tools for generalized anxiety disorder in pregnancy and the postpartum period. *Can J Psychiatry* 59(8): 434–40.
- Sorensen MJ, Kjaersgaard MI, Pedersen HS et al (2015) Risk of fetal death after treatment with antipsychotic medications during pregnancy. *PLoS One* 10(7): e0132280.

- Spies G, Stein DJ, Roos A et al (2009) Validity of the Kessler 10 (K-10) in detecting DSM-IV defined mood and anxiety disorders among pregnant women. *Arch Womens Ment Health* 12(2): 69–74.
- Spitzer RL, Williams JB, Kroenke K et al (2000) Validity and utility of the PRIME-MD patient health questionnaire in assessment of 3000 obstetric-gynecologic patients: the PRIME-MD Patient Health Questionnaire Obstetrics-Gynecology Study. *Am J Obstet Gynecol* 183(3): 759–69.
- Stefan J, Hauck Y, Faulkner D et al (2009) *Healthy Mother-infant Relationship: Assessment of Risk in Mothers with Serious Mental Illness*. North Metropolitan Area Health Service, Mental Health, WA Department of Health.
- Stoffers JM, Vollm BA, Rucker G et al (2012) Psychological therapies for people with borderline personality disorder. *Cochrane Database Syst Rev*(8): CD005652.
- Sword W, Busser D, Ganann R et al (2008) Women's care-seeking experiences after referral for postpartum depression. *Qual Health Res* 18(9): 1161–73.
- TGA (2001) St John's Wort: Important interactions between St John's Wort (*Hypericum perforatum*) preparations and prescription medicines. Accessed: 24 May 2017.
- Tran TD, Tran T, La B et al (2011) Screening for perinatal common mental disorders in women in the north of Vietnam: a comparison of three psychometric instruments. *J Affect Disord* 133(1-2): 281–93.
- UN General Assembly (1948) *Universal Declaration of Human Rights. Adopted by General Assembly Resolution 217 A(III) of 10 December 1948*. United Nations.
- UN General Assembly (2007) *Convention on the Rights of Persons with Disabilities: Adopted by the General Assembly, 24 January 2007, A/RES/61/106*. United Nations.
- Venkatesh KK, Nadel H, Blewett D et al (2016) Implementation of universal screening for depression during pregnancy: feasibility and impact on obstetric care. *Am J Obstet Gynecol* 215(4): 517 e1–8.
- Viguera AC, Nonacs R, Cohen LS et al (2000) Risk of recurrence of bipolar disorder in pregnant and nonpregnant women after discontinuing lithium maintenance. *Am J Psychiatry* 157(2): 179–84.
- Viguera AC, Whitfield T, Baldessarini RJ et al (2007) Risk of recurrence in women with bipolar disorder during pregnancy: prospective study of mood stabilizer discontinuation. *Am J Psychiatry* 164(12): 1817–24; quiz 923.
- Weetra D, Glover K, Buckskin M et al (2016) Stressful events, social health issues and psychological distress in Aboriginal women having a baby in South Australia: implications for antenatal care. *BMC Pregnancy Childbirth* 16: 88.
- Weston J, Bromley R, Jackson CF et al (2016) Monotherapy treatment of epilepsy in pregnancy: congenital malformation outcomes in the child. *Cochrane Database Syst Rev* 11: CD010224.
- WHO (2016) *WHO recommendations on antenatal care for a positive pregnancy experience*. Geneva: World Health Organization.
- Wikner BN, Stiller CO, Bergman U et al (2007) Use of benzodiazepines and benzodiazepine receptor agonists during pregnancy: neonatal outcome and congenital malformations. *Pharmacoepidemiol Drug Saf* 16(11): 1203–10.
- Williamson M & Harrison L (2010) Providing culturally appropriate care: a literature review. *Int J Nurs Stud* 47(6): 761–9.
- Wisner KL, Sit DK, McShea MC et al (2013) Onset timing, thoughts of self-harm, and diagnoses in postpartum women with screen-positive depression findings. *JAMA Psychiatry* 70(5): 490–8.
- Woolhouse H, Brown S, Krastev A et al (2009) Seeking help for anxiety and depression after childbirth: results of the Maternal Health Study. *Arch Womens Ment Health* 12(2): 75–83.
- Woolhouse H, Gartland D, Hegarty K et al (2012) Depressive symptoms and intimate partner violence in the 12 months after childbirth: a prospective pregnancy cohort study. *BJOG* 119(3): 315–23.
- Woolhouse H, Gartland D, Mensah F et al (2015) Maternal depression from early pregnancy to 4 years postpartum in a prospective pregnancy cohort study: implications for primary health care. *BJOG* 122(3): 312–21.
- Yelland J, Riggs E, Wahidi S et al (2014) How do Australian maternity and early childhood health services identify and respond to the settlement experience and social context of refugee background families? *BMC Pregnancy Childbirth* 14: 348.



Centre of Perinatal Excellence

PO Box 122, Flemington VIC 3031

cope.org.au
