Antenatal and postnatal mental health

Clinical management and service guidance
NICE clinical guideline 45
Antenatal and postnatal mental health: clinical management and service guidance

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• The NICE guideline (this document) – all the recommendations.
• A quick reference guide – a summary of the recommendations for healthcare professionals.
• ‘Understanding NICE guidance’ – information for patients and carers.
• The full guideline – all the recommendations, details of how they were developed, and summaries of the evidence they were based on.

For printed copies of the quick reference guide or ‘Understanding NICE guidance’, phone the NHS Response Line on 0870 1555 455 and quote:
• N1201 (quick reference guide)
• N1202 (‘Understanding NICE guidance’).

This guidance is written in the following context
This guidance represents the view of the Institute, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

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Introduction

This guideline makes recommendations for the prediction, detection and treatment of mental disorders in women during pregnancy and the postnatal period (up to 1 year after delivery). It includes advice on the care of women with an existing mental disorder who are planning a pregnancy, and on the organisation of mental health services.

Mental disorders during pregnancy and the postnatal period can have serious consequences for the health and wellbeing of a mother and her baby, as well as for her partner and other family members. The guideline covers the care of women with anxiety disorders, and depression. It also covers the treatment of postnatal psychotic disorders (often referred to as puerperal psychosis), which predominantly comprise bipolar disorder and schizophrenia. Healthcare professionals should refer to the sections on bipolar disorder and schizophrenia for advice on treating any psychotic disorder. The term ‘postnatal depression’ is not used in this guideline because it is often used inappropriately as a general term for any perinatal mental disorder.

The guideline provides advice on the teratogenic risk of psychotropic medications and on the risks of their use during breastfeeding. The focus is on balancing the risks for each woman and her child against those of leaving the mental disorder untreated or inadequately treated.

The guideline draws on the best available evidence. However, there are significant limitations to the evidence base, including limited data on the risks of psychotropic medication during pregnancy and breastfeeding, particularly with more recently introduced drugs. No psychotropic drug has marketing authorisation specifically for pregnant or breastfeeding women.

The guideline should be read in conjunction with existing NICE guidance on the treatment and management of mental disorders. This also includes advice on the most appropriate organisation of services for the delivery of effective treatment, within a stepped-care framework.
Patient-centred care

Treatment and care should take into account the woman’s individual needs and preferences. Women with mental disorders during pregnancy or the postnatal period should have the opportunity to make informed decisions about their care and treatment in partnership with their healthcare professionals. If women do not have the capacity to make decisions, healthcare professionals should follow the Department of Health guidelines – ‘Reference guide to consent for examination or treatment’ (2001) (available from www.dh.gov.uk). From April 2007 healthcare professionals will need to follow a code of practice accompanying the Mental Capacity Act (summary available from www.dca.gov.uk/menincap/bill-summary.htm).

Good communication between healthcare professionals and women, and their partners, families and carers, is essential. It should be supported by evidence-based written information tailored to the woman’s needs. The treatment and care, and information women are given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English.

Carers and relatives should have the opportunity to be involved in decisions about the woman’s care and treatment, unless the woman specifically excludes them.

Carers and relatives should also be given the information and support they need.
Key priorities for implementation

Prediction and detection

- At a woman’s first contact with services in both the antenatal and the postnatal periods, healthcare professionals (including midwives, obstetricians, health visitors and GPs) should ask questions about:
  - past or present severe mental illness including schizophrenia, bipolar disorder, psychosis in the postnatal period and severe depression
  - previous treatment by a psychiatrist/specialist mental health team including inpatient care
  - a family history of perinatal mental illness.

Other specific predictors, such as poor relationships with her partner, should not be used for the routine prediction of the development of a mental disorder.

- At a woman’s first contact with primary care, at her booking visit and postnatally (usually at 4 to 6 weeks and 3 to 4 months), healthcare professionals (including midwives, obstetricians, health visitors and GPs) should ask two questions to identify possible depression.
  - During the past month, have you often been bothered by feeling down, depressed or hopeless?
  - During the past month, have you often been bothered by having little interest or pleasure in doing things?

A third question should be considered if the woman answers ‘yes’ to either of the initial questions\(^1\).

  - Is this something you feel you need or want help with?

\(^1\) In this reissued guideline, this recommendation has been corrected by changing ‘both of the initial questions’ to ‘either of the initial questions’.
Psychological treatments

- Women requiring psychological treatment should be seen for treatment normally within 1 month of initial assessment, and no longer than 3 months afterwards. This is because of the lower threshold for access to psychological therapies during pregnancy and the postnatal period arising from the changing risk–benefit ratio for psychotropic medication at this time.

Explaining risks

- Before treatment decisions are made, healthcare professionals should discuss with the woman the absolute and relative risks associated with treating and not treating the mental disorder during pregnancy and the postnatal period. They should:
  - acknowledge the uncertainty surrounding the risks
  - explain the background risk of fetal malformations for pregnant women without a mental disorder
  - describe risks using natural frequencies rather than percentages (for example, 1 in 10 rather than 10%) and common denominators (for example, 1 in 100 and 25 in 100, rather than 1 in 100 and 1 in 4)
  - if possible use decision aids in a variety of verbal and visual formats that focus on an individualised view of the risks
  - provide written material to explain the risks (preferably individualised) and, if possible, audio-taped records of the consultation.
Management of depression

• When choosing an antidepressant for pregnant or breastfeeding women, prescribers should, while bearing in mind that the safety of these drugs is not well understood, take into account that:
  
  − tricyclic antidepressants, such as amitriptyline, imipramine and nortriptyline, have lower known risks during pregnancy than other antidepressants
  − most tricyclic antidepressants have a higher fatal toxicity index than selective serotonin reuptake inhibitors (SSRIs)
  − fluoxetine is the SSRI with the lowest known risk during pregnancy
  − imipramine, nortriptyline and sertraline are present in breast milk at relatively low levels
  − citalopram and fluoxetine are present in breast milk at relatively high levels
  − SSRIs taken after 20 weeks’ gestation may be associated with an increased risk of persistent pulmonary hypertension in the neonate
  − paroxetine taken in the first trimester may be associated with fetal heart defects
  − venlafaxine may be associated with increased risk of high blood pressure at high doses, higher toxicity in overdose than SSRIs and some tricyclic antidepressants, and increased difficulty in withdrawal
  − all antidepressants carry the risk of withdrawal or toxicity in neonates; in most cases the effects are mild and self-limiting.

• For a woman who develops mild or moderate depression during pregnancy or the postnatal period, the following should be considered:
  
  − self-help strategies (guided self-help, computerised cognitive behavioural therapy or exercise)
- non-directive counselling delivered at home (listening visits)
- brief cognitive behavioural therapy or interpersonal psychotherapy.

**Organisation of care**

- Clinical networks should be established for perinatal mental health services, managed by a coordinating board of healthcare professionals, commissioners, managers, and service users and carers. These networks should provide:
  - a specialist multidisciplinary perinatal service in each locality, which provides direct services, consultation and advice to maternity services, other mental health services and community services; in areas of high morbidity these services may be provided by separate specialist perinatal teams
  - access to specialist expert advice on the risks and benefits of psychotropic medication during pregnancy and breastfeeding
  - clear referral and management protocols for services across all levels of the existing stepped-care frameworks for mental disorders, to ensure effective transfer of information and continuity of care
  - pathways of care for service users, with defined roles and competencies for all professional groups involved.
1 Guidance

The following guidance is based on the best available evidence. The full
guideline (www.nice.org.uk/CG045fullguideline) gives details of the methods
and the evidence used to develop the guidance (see section 5 for details).

1.1 Principles of care for all women with mental
disorders during pregnancy and the postnatal period

1.1.1 Providing and using information effectively

Providing information about the nature, course and treatment of a mental
disorder during pregnancy and the postnatal period facilitates access to
services, and improves understanding and collaboration between the woman,
her partner, family members, carers and healthcare professionals.

1.1.1.1 Women with an existing mental disorder who are pregnant or
planning a pregnancy, and women who develop a mental disorder
during pregnancy or the postnatal period, should be given culturally
sensitive information at each stage of assessment, diagnosis,
course and treatment about the impact of the disorder and its
treatment on their health and the health of their fetus or child. This
information should cover the proper use and likely side effects of
medication.

1.1.1.2 Healthcare professionals should work to develop a trusting
relationship with the woman, and where appropriate and
acceptable to the woman, her partner and family members and
carers. In particular, they should:

- explore the woman’s ideas, concerns and expectations and
  regularly check her understanding of the issues
- discuss the level of involvement of the woman’s partner, family
  members and carers, and their role in supporting the woman
• be sensitive to the issues of stigma and shame in relation to mental illness.

1.1.3 Healthcare professionals should ensure that adequate systems are in place to ensure continuity of care and effective transfer of information, to reduce the need for multiple assessments.

1.1.4 Healthcare professionals should discuss contraception and the risks of pregnancy (including relapse, risk to the fetus and risks associated with stopping or changing medication) with all women of child-bearing potential who have an existing mental disorder and/or who are taking psychotropic medication. Such women should be encouraged to discuss pregnancy plans with their doctor.

1.1.2 Supporting partners, families and carers

1.1.2.1 Healthcare professionals should assess and, where appropriate address, the needs of the partner, family members and carers of a woman with a mental disorder during pregnancy and the postnatal period, including:

• the welfare of her infant, and other dependent children and adults
• the impact of any mental disorder on relationships with her partner, family members and carers.

1.1.3 Considerations for adolescents

1.1.3.1 Healthcare professionals working with adolescents experiencing a mental disorder during pregnancy or the postnatal period should:

• be familiar with local and national guidelines on confidentiality and the rights of the child
obtain appropriate consent, bearing in mind the adolescent’s understanding (including Gillick competence\(^2\)), parental consent and responsibilities, child protection issues, and the use of the Mental Health Act and of the Children Act (1989).

1.2 **Prediction, detection and initial management of mental disorders**

1.2.1 **Prediction and detection**

Routine contact with healthcare professionals (including midwives, obstetricians, health visitors and GPs) during pregnancy and the postnatal period provides an opportunity to identify women who have, or are at risk of developing, a mental disorder. Healthcare professionals should be aware of the impact a woman’s mental state can have on obstetric and maternity outcomes, the development of the fetus or child, and her partner and family. Simple and validated detection tools for mental disorders suitable for use in primary care exist only for depression, but healthcare professionals should also be alert to symptoms of other mental disorders.

1.2.1.1 In all communications (including initial referral) with maternity services, healthcare professionals should include information on any relevant history of mental disorder.

1.2.1.2 At a woman’s first contact with services in both the antenatal and the postnatal periods, healthcare professionals (including midwives, obstetricians, health visitors and GPs) should ask about:

- past or present severe mental illness including schizophrenia, bipolar disorder, psychosis in the postnatal period and severe depression
- previous treatment by a psychiatrist/specialist mental health team including inpatient care

\(^2\)Also known as the Fraser competence rule after the judge presiding over the original case.
• a family history of perinatal mental illness.

Other specific predictors, such as poor relationships with her partner, should not be used for the routine prediction of the development of a mental disorder.

1.2.1.3 At a woman’s first contact with primary care, at her booking visit and postnatally (usually at 4 to 6 weeks and 3 to 4 months), healthcare professionals (including midwives, obstetricians, health visitors and GPs) should ask two questions to identify possible depression.

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

A third question should be considered if the woman answers ‘yes’ to either of the initial questions.

• Is this something you feel you need or want help with?

1.2.1.4 Healthcare professionals may consider the use of self-report measures such as the Edinburgh Postnatal Depression Scale (EPDS), Hospital Anxiety and Depression Scale (HADS) or Patient Health Questionnaire-9 (PHQ-9) as part of a subsequent assessment or for the routine monitoring of outcomes.

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3 In this reissued guideline, this recommendation has been corrected by changing ‘both of the initial questions’ to ‘either of the initial questions’.
1.2.2 Referral and initial care

1.2.2.1 After identifying a possible mental disorder in a woman during pregnancy or the postnatal period, further assessment should be considered, in consultation with colleagues if necessary.

- If the healthcare professional or the woman has significant concerns, the woman should normally be referred for further assessment to her GP.
- If the woman has, or is suspected to have, a severe mental illness (for example, bipolar disorder or schizophrenia), she should be referred to a specialist mental health service, including, if appropriate, a specialist perinatal mental health service. This should be discussed with the woman and preferably with her GP.
- The woman’s GP should be informed in all cases in which a possible current mental disorder or a history of significant mental disorder is detected, even if no further assessment or referral is made.

1.2.2.2 If a woman has a current mental disorder or a history of severe mental illness, she should be asked about her mental health at all subsequent contacts.

1.2.2.3 A written care plan covering pregnancy, delivery and the postnatal period should be developed for pregnant women with a current or past history of severe mental illness, usually in the first trimester. It should:

- be developed in collaboration with the woman and her partner, family and carers, and relevant healthcare professionals
- include increased contact with specialist mental health services (including, if appropriate, specialist perinatal mental health services)
• be recorded in all versions of the woman's notes (her own records and maternity, primary care and mental health notes) and communicated to the woman and all relevant healthcare professionals.

1.2.2.4 Women who need inpatient care for a mental disorder within 12 months of childbirth should normally be admitted to a specialist mother and baby unit, unless there are specific reasons for not doing so.

1.2.2.5 Managers and senior healthcare professionals responsible for perinatal mental health services (including those working in maternity and primary care services) should ensure that:

• there are clearly specified care pathways so that all primary and secondary healthcare professionals involved in the care of women during pregnancy and the postnatal period know how to access assessment and treatment
• staff have supervision and training, covering mental disorders, assessment methods and referral routes, to allow them to follow the care pathways.

1.3 Prevention of mental disorders

There is evidence to support the use of targeted psychosocial interventions for women who have symptoms of depression and/or anxiety that do not meet the threshold for a formal diagnosis.

1.3.1.1 For pregnant women who have symptoms of depression and/or anxiety that do not meet diagnostic criteria but significantly interfere with personal and social functioning, healthcare professionals should consider:

• for women who have had a previous episode of depression or anxiety, offering individual brief psychological treatment (four to
six sessions), such as interpersonal psychotherapy (IPT) or cognitive behavioural therapy (CBT)

- for women who have not had a previous episode of depression or anxiety, offering social support during pregnancy and the postnatal period; such support may consist of regular informal individual or group-based support.

1.3.1.2 Psychosocial interventions (for example, group psychoeducation) designed specifically to reduce the likelihood of developing a mental disorder during pregnancy or the postnatal period should not be part of routine antenatal and postnatal care.

1.3.1.3 Single-session formal debriefing focused on the birth should not be routinely offered to women who have experienced a traumatic birth. However, maternity staff and other healthcare professionals should support women who wish to talk about their experience, encourage them to make use of natural support systems available from family and friends, and take into account the effect of the birth on the partner.

1.3.1.4 Mothers whose infants are stillborn or die soon after birth should not be routinely encouraged to see and hold the dead infant. These women should be offered an appropriate follow-up appointment in primary or secondary care.

1.4 Care of women with a mental disorder during pregnancy and the postnatal period

The care of women with a mental disorder during pregnancy and the postnatal period should be the same as for anyone with a mental disorder. However, treatment decisions are complicated by the presence of the developing fetus, breastfeeding and the timescales imposed by pregnancy and birth.
1.4.1 Treating pregnant and breastfeeding women: balancing risks and benefits

To minimise the risk of harm to the fetus or child, drugs should be prescribed cautiously for women who are planning a pregnancy, pregnant or breastfeeding. As a result the thresholds for non-drug treatments, particularly psychological treatments, are likely to be lower than those set in NICE clinical guidelines on specific mental disorders, and prompt and timely access to treatments should be ensured if they are to be of benefit.

1.4.1.1 Women requiring psychological treatment should be seen for treatment normally within 1 month of initial assessment, and no longer than 3 months afterwards. This is because of the lower threshold for access to psychological therapies during pregnancy and the postnatal period arising from the changing risk–benefit ratio for psychotropic medication at this time.

1.4.1.2 Discussions about treatment options with a woman with a mental disorder who is planning a pregnancy, pregnant or breastfeeding should cover:

- the risk of relapse or deterioration in symptoms and the woman’s ability to cope with untreated or subthreshold symptoms
- severity of previous episodes, response to treatment and the woman’s preference
- the possibility that stopping a drug with known teratogenic risk after pregnancy is confirmed may not remove the risk of malformations
- the risks from stopping medication abruptly
- the need for prompt treatment because of the potential impact of an untreated mental disorder on the fetus or infant
- the increased risk of harm associated with drug treatments during pregnancy and the postnatal period, including the risk in overdose
• treatment options that would enable the woman to breastfeed if she wishes, rather than recommending she does not breastfeed.

1.4.1.3 When prescribing a drug for a woman with a mental disorder who is planning a pregnancy, pregnant or breastfeeding, prescribers should:

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

1.4.1.4 When stopping a drug in a woman with a mental disorder who is planning a pregnancy, pregnant or breastfeeding, take into account:

• NICE guidance on the specific disorder (see section 6)
• the risk to the fetus or infant during the withdrawal period
• the risk from not treating the disorder.

1.4.2 Discussing and explaining the risk of treatments

When considering treatment choices for mental disorders during pregnancy and breastfeeding, or when a pregnancy is planned, it is important to place risks from drug treatment in the context of the individual woman’s illness. It should also be noted that the background risk of fetal malformations in the general population is between 2% and 4%.
1.4.2.1 Before treatment decisions are made, healthcare professionals should discuss with the woman the absolute and relative risks associated with treating and not treating the mental disorder during pregnancy and the postnatal period. They should:

- acknowledge the uncertainty surrounding the risks
- explain the background risk of fetal malformations for pregnant women without a mental disorder
- describe risks using natural frequencies rather than percentages (for example, 1 in 10 rather than 10%) and common denominators (for example, 1 in 100 and 25 in 100, rather than 1 in 100 and 1 in 4)
- if possible use decision aids in a variety of verbal and visual formats that focus on an individualised view of the risks
- provide written material to explain the risks (preferably individualised) and, if possible, audio-taped records of the consultation.

1.4.3 Specific considerations for the use of psychotropic drugs during pregnancy and the postnatal period

Care is needed when prescribing to all women of childbearing potential. Women should understand the risks associated with becoming pregnant while taking psychotropic drugs, and the risks from an untreated mental disorder and from stopping medication abruptly without discussion with their doctor. The risk of malformations is increased by some psychotropic drugs, but is often difficult to quantify because of limited data.

Some of the recommendations in this section are from the NICE clinical guideline on the treatment and management of bipolar disorder (see section 6 for details), with modifications to reflect the wider range of indications covered by this guideline.
Antidepressants

The risks of taking tricyclic antidepressants during pregnancy and when breastfeeding are better established than those of newer drugs, although the issues of tolerability and risk in overdose remain. Most antidepressants appear in some concentration in breast milk although the effects on the infant are not well understood.

1.4.3.1 If a woman taking paroxetine is planning a pregnancy or has an unplanned pregnancy, she should be advised to stop taking the drug.

1.4.3.2 When choosing an antidepressant for pregnant or breastfeeding women, prescribers should, while bearing in mind that the safety of these drugs is not well understood, take into account that:

- tricyclic antidepressants, such as amitriptyline, imipramine and nortriptyline, have lower known risks during pregnancy than other antidepressants
- most tricyclic antidepressants have a higher fatal toxicity index than selective serotonin reuptake inhibitors (SSRIs)
- fluoxetine is the SSRI with the lowest known risk during pregnancy
- imipramine, nortriptyline and sertraline are present in breast milk at relatively low levels
- citalopram and fluoxetine are present in breast milk at relatively high levels
- SSRIs taken after 20 weeks’ gestation may be associated with an increased risk of persistent pulmonary hypertension in the neonate
- paroxetine taken in the first trimester may be associated with fetal heart defects
- venlafaxine may be associated with increased risk of high blood pressure at high doses, higher toxicity in overdose than SSRIs
and some tricyclic antidepressants, and increased difficulty in withdrawal

- all antidepressants carry the risk of withdrawal or toxicity in neonates; in most cases the effects are mild and self-limiting.

**Benzodiazepines**

1.4.3.3 Benzodiazepines should not be routinely prescribed for pregnant women, except for the short-term treatment of extreme anxiety and agitation. This is because of the risks to the fetus (for example, cleft palate) and the neonate (for example, floppy baby syndrome). Consider gradually stopping benzodiazepines in women who are pregnant.

**Antipsychotics**

1.4.3.4 Women taking antipsychotics who are planning a pregnancy should be told that the raised prolactin levels associated with some antipsychotics (notably amisulpride, risperidone and sulpiride) reduce the chances of conception. If prolactin levels are raised, an alternative drug should be considered.

1.4.3.5 If a pregnant woman is taking clozapine, switching to another drug and careful monitoring should be considered. Clozapine should not be routinely prescribed for women who are pregnant (because there is a theoretical risk of agranulocytosis in the fetus) or for women who are breastfeeding (because it reaches high levels in breast milk and there is a risk of agranulocytosis in the infant).

1.4.3.6 When deciding whether to prescribe olanzapine to a woman who is pregnant, risk factors for gestational diabetes and weight gain, including family history, existing weight and ethnicity, should be taken into account.

1.4.3.7 Depot antipsychotics should not be routinely prescribed to pregnant women because there is relatively little information on their safety,
and their infants may show extrapyramidal symptoms several months after administration of the depot. These are usually self-limiting.

1.4.3.8 Anticholinergic drugs should not be prescribed for the extrapyramidal side effects of antipsychotic drugs except for acute short-term use. Instead, the dose and timing of the antipsychotic drug should be adjusted, or the drug changed.

Valproate

Valproate increases the risk of neural tube defects (mainly spina bifida and anencephaly) from around 6 in 10,000 pregnancies in the general population to around 100 to 200 in 10,000. It also has effects on the child’s intellectual development. Many pregnancies are unintended and/or not confirmed until after the 28th day (when the neural tube closes) so care is needed when prescribing the drug.

1.4.3.9 Valproate should not be routinely prescribed to women of child-bearing potential. If there is no effective alternative, the risks of taking valproate during pregnancy, and the importance of using adequate contraception, should be explained.

1.4.3.10 Valproate should not be prescribed to women younger than 18 years because of the risk of polycystic ovary syndrome and increased risk of unplanned pregnancy in this age group.

1.4.3.11 If a woman who is taking valproate is planning a pregnancy, or is pregnant, she should be advised to stop taking the drug. Where appropriate in the treatment of bipolar disorder, an alternative drug (usually an antipsychotic) should be considered.

1.4.3.12 If there is no alternative to valproate, doses should be limited to a maximum of 1 gram per day, administered in divided doses and in the slow release form, with 5 mg/day folic acid. However, it is not
clear how the serum level of valproate affects the risk of abnormalities.

**Lithium**

Lithium increases the rate of fetal heart defects to around 60 in 1000, compared with the risk of 8 in 1000 in the general population. It is estimated that lithium increases the risk of Ebstein’s anomaly (a major cardiac malformation) from 1 in 20,000 to 10 in 20,000.

1.4.3.13 Lithium should not be routinely prescribed for women, particularly in the first trimester of pregnancy (because of the risk of cardiac malformations in the fetus) or during breastfeeding (because of the high levels in breast milk).

1.4.3.14 If a woman taking lithium is planning a pregnancy, and is well and not at high risk of relapse, she should be advised to stop taking the drug because of the risk of cardiac malformations in the fetus.

1.4.3.15 If a woman who is taking lithium becomes pregnant:

- if the pregnancy is confirmed in the first trimester, and the woman is well and not at high risk of relapse, lithium should be stopped gradually over 4 weeks; it should be explained that this may not remove the risk of cardiac defects in the fetus
- if the woman is not well or is at high risk of relapse, the following should be considered:
  - switching gradually to an antipsychotic, or
  - stopping lithium and restarting it in the second trimester if the woman is not planning to breastfeed and her symptoms have responded better to lithium than to other drugs in the past, or
  - continuing with lithium if she is at high risk of relapse.

1.4.3.16 If a woman continues taking lithium during pregnancy, serum lithium levels should be checked every 4 weeks, then weekly from the 36th week, and less than 24 hours after childbirth; the dose
should be adjusted to keep serum levels towards the lower end of the therapeutic range, and the woman should maintain adequate fluid intake.

1.4.3.17 Women taking lithium should deliver in hospital, and be monitored during labour by the obstetric team. Monitoring should include fluid balance, because of the risk of dehydration and lithium toxicity (in prolonged labour, it may be appropriate to check serum lithium levels).

Carbamazepine and lamotrigine

Carbamazepine is estimated to increase the risk of neural tube defects from 6 in 10,000 to around 20 to 50 in 10,000, and carries a risk of other major fetal malformations including gastrointestinal tract problems and cardiac abnormalities. Lamotrigine carries the risk of oral cleft (estimated at nearly 9 in 1000 exposed fetuses).

1.4.3.18 If a woman who is taking carbamazepine or lamotrigine is planning a pregnancy or has an unplanned pregnancy, healthcare professionals should advise her to stop taking these drugs because of the risk of neural tube defects and other malformations in the fetus. If appropriate an alternative drug (such as an antipsychotic) should be considered.

1.4.3.19 Carbamazepine or lamotrigine should not be routinely prescribed for women who are pregnant because of the lack of evidence of efficacy and the risk of neural tube defects in the fetus.

1.4.3.20 Lamotrigine should not be routinely prescribed for women who are breastfeeding because of the risk of dermatological problems in the infant, such as Stevens–Johnson syndrome.
1.4.4 Special considerations arising from the use of psychotropic drugs during early pregnancy or while breastfeeding

1.4.4.1 If a pregnant woman was taking drugs with known teratogenic risk (lithium, valproate, carbamazepine, lamotrigine and paroxetine) at the time of conception and/or in the first trimester, healthcare professionals should:

- confirm the pregnancy as quickly as possible
- offer appropriate screening and counselling about the continuation of the pregnancy, the need for additional monitoring and the risks to the fetus if the woman continues to take medication
- undertake a full paediatric assessment of the newborn infant
- monitor the infant in the first few weeks after delivery for adverse drug effects, drug toxicity or withdrawal (for example, floppy baby syndrome, irritability, constant crying, shivering, tremor, restlessness, increased tone, feeding and sleeping difficulties and, rarely, seizures); if the mother was prescribed antidepressants in the last trimester, these may result from serotonergic toxicity syndrome rather than withdrawal.

1.4.4.2 Infants of mothers who are breastfeeding while taking psychotropic medication should be monitored for adverse reactions.

1.4.5 Sleep problems

1.4.5.1 Pregnant women with a mental disorder who have sleep problems should initially be given general advice about sleep hygiene (including bedtime routines, the avoidance of caffeine, and the reduction of activity before sleep). For women with serious and chronic problems, low-dose chlorpromazine or low-dose amitriptyline may be considered.
1.4.6 Electroconvulsive therapy (ECT)

There has been little research on the use of ECT during pregnancy, but there is no evidence that it carries a higher risk than at other times, and no evidence of the effects of the treatment on the fetus or neonate.

1.4.6.1 A course of ECT should be considered for pregnant women with severe depression, severe mixed affective states or mania in the context of bipolar disorder, or catatonia, whose physical health or that of the fetus is at serious risk.

1.4.7 Rapid tranquillisation

1.4.7.1 A pregnant woman requiring rapid tranquillisation should be treated according to the NICE clinical guidelines on the short-term management of disturbed/violent behaviour, schizophrenia and bipolar disorder (see section 6 for details), except that:

- she should not be secluded after rapid tranquillisation
- restraint procedures should be adapted to avoid possible harm to the fetus
- when choosing an agent for rapid tranquillisation in a pregnant woman, an antipsychotic or a benzodiazepine with a short half-life should be considered; if an antipsychotic is used, it should be at the minimum effective dose because of neonatal extrapyramidal symptoms; if a benzodiazepine is used, the risks of floppy baby syndrome should be taken into account
- during the perinatal period, the woman's care should be managed in close collaboration with a paediatrician and an anaesthetist.

1.4.8 Guidance for specific disorders

This section recommends how NICE guidance on specific mental disorders may be adapted for women who are planning a pregnancy, pregnant or
breastfeeding. It should be read in conjunction with the rest of the advice in section 1.4.

Depression

This section should be read in conjunction with the NICE clinical guideline on the management of depression in primary and secondary care (see section 6 for details).

The risks associated with antidepressant treatment during pregnancy and breastfeeding lower the threshold for psychological treatments. In addition, risks are better established in older drugs and a cautious approach would be to avoid newer drugs.

*Women being treated for depression who are planning a pregnancy or have an unplanned pregnancy*

1.4.8.1 If a woman being treated for mild depression is taking an antidepressant, the medication should be withdrawn gradually and monitoring (‘watchful waiting’) considered. If intervention is then needed the following should be considered:

- self-help approaches (guided self-help, computerised CBT [C-CBT], exercise) or
- brief psychological treatments (including counselling, CBT and IPT).

1.4.8.2 If a woman is taking an antidepressant and her latest presentation was a moderate depressive episode, the following options should be discussed with the woman, taking into account previous response to treatment, her preference, and risk:

- switching to psychological therapy (CBT or IPT)
- switching to an antidepressant with lower risk.

1.4.8.3 If a woman is taking an antidepressant and her latest presentation was a severe depressive episode, the following options should be
discussed with the woman, taking into account previous response to treatment, her preference, and risk:

- combining drug treatment with psychological treatment, but switching to an antidepressant with lower risk
- switching to psychological treatment (CBT or IPT).

Pregnant or breastfeeding women who have a new episode of depression

1.4.8.4 For a woman who develops mild or moderate depression during pregnancy or the postnatal period, the following should be considered:

- self-help strategies (guided self-help, C-CBT or exercise)
- non-directive counselling delivered at home (listening visits)
- brief CBT or IPT.

1.4.8.5 Antidepressant drugs should be considered for women with mild depression during pregnancy or the postnatal period if they have a history of severe depression and they decline, or their symptoms do not respond to, psychological treatments.

1.4.8.6 For a woman with a moderate depressive episode and a history of depression, or with a severe depressive episode during pregnancy or the postnatal period, the following should be considered:

- structured psychological treatment specifically for depression (CBT or IPT)
- antidepressant treatment if the woman has expressed a preference for it
- combination treatment if there is no response, or a limited response to psychological or drug treatment alone, provided the woman understands the risks associated with antidepressant medication.
Treatment-resistant depression

1.4.8.7 For pregnant women with treatment-resistant depression, a trial of a different single drug or ECT should be considered before combination drug treatment. Lithium augmentation should be avoided.

Generalised anxiety disorder (GAD)

This section should be read in conjunction with the NICE clinical guideline on the management of anxiety in primary, secondary and community care (see section 6 for details).

Women with GAD who are planning a pregnancy or pregnant

1.4.8.8 If a woman is planning a pregnancy or becomes pregnant while being treated with medication for GAD, the following should be considered:

- stopping medication and starting CBT if it has not already been tried
- if necessary, switching to a safer drug, if the decision is to maintain medication.

Women who have a new episode of GAD

1.4.8.9 A woman who has a new episode of GAD during pregnancy should be treated according to the NICE guideline on anxiety, and CBT should be offered.

Panic disorder

This section should be read in conjunction with the NICE clinical guideline on the management of anxiety in primary, secondary and community care (see section 6 for details).
Women with panic disorder who are planning a pregnancy or pregnant

1.4.8.10 If a woman is planning a pregnancy or becomes pregnant while being treated for panic disorder, the following should be considered:

- stopping medication and starting CBT if it has not already been tried
- if necessary, switching to a safer drug, if the decision is to maintain medication.

Women who have a new episode of panic disorder

1.4.8.11 For women who have a new episode of panic disorder during pregnancy, psychological therapy (CBT), self-help or C-CBT should be considered before starting drug treatment.

1.4.8.12 For women who have a new episode of panic disorder during pregnancy, paroxetine should not be started and a safer drug should be considered.

Obsessive–compulsive disorder

This section should be read in conjunction with the NICE clinical guideline on the treatment and management of obsessive–compulsive disorder (OCD) (see section 6 for details).

Severe OCD in pregnant and postnatal women can be a serious problem for the mother, her baby and her family. Initial treatment should generally be with psychological treatments.

Women with OCD who are planning a pregnancy or pregnant

1.4.8.13 A woman with OCD who is planning a pregnancy or pregnant should be treated according to the NICE clinical guideline on OCD except that:

- if she is taking medication alone, stopping the drug and starting psychological therapy should be considered
• if she is not taking medication, starting psychological therapy should be considered before drug treatment
• if she is taking paroxetine, it should be stopped and switching to a safer antidepressant considered.

1.4.8.14 A pregnant woman with OCD who is planning to breastfeed should be treated according to the NICE clinical guideline on OCD, except that the use of a combination of clomipramine and citalopram should be avoided if possible.

Women who have a new episode of OCD while breastfeeding

1.4.8.15 A woman who has a new episode of OCD while breastfeeding should be treated according to the NICE clinical guideline on OCD, except that the combination of clomipramine and citalopram should be avoided because of the high levels in breast milk.

Post-traumatic stress disorder

This section should be read in conjunction with the NICE clinical guideline on the management of post-traumatic stress disorder (PTSD) (see section 6 for details).

There is no convincing evidence for drug treatments for PTSD in any patients, so psychological treatments are preferred.

Women with PTSD who are planning a pregnancy or pregnant

1.4.8.16 A woman with PTSD who is planning a pregnancy or pregnant should be treated according to the NICE clinical guideline on PTSD, except that if she is taking an antidepressant the drug should be stopped and trauma-focused psychological therapy (for example, CBT or eye movement desensitisation and reprocessing therapy) offered.

1.4.8.17 For a woman with PTSD who is planning a pregnancy or pregnant, adjunctive olanzapine should not be prescribed.
Eating disorders

This section should be read in conjunction with the NICE clinical guideline on the treatment and management of eating disorders (see section 6 for details).

Although anorexia nervosa reduces a woman’s fertility, women with this disorder can become pregnant. Women with bulimia nervosa are prone to unplanned pregnancy, in part because vomiting reduces the efficacy of oral contraceptives.

Women with anorexia nervosa

1.4.8.18 A woman with anorexia nervosa who is planning a pregnancy, has an unplanned pregnancy or is breastfeeding should be treated according to the NICE clinical guideline on eating disorders.

Women with binge eating disorder

1.4.8.19 A woman with binge eating disorder who is taking an antidepressant and is planning a pregnancy, has an unplanned pregnancy or is breastfeeding should be treated according to the section on depression in this guideline (recommendations 1.4.8.1–7).

Women with bulimia nervosa

1.4.8.20 If a woman who is taking medication for bulimia nervosa is planning a pregnancy or pregnant, healthcare professionals should consider gradually stopping the medication after discussion with her. If the problem persists, referral for specialist treatment should be considered.

Women who have an episode of bulimia nervosa while breastfeeding

1.4.8.21 If a woman has an episode of bulimia nervosa while breastfeeding, psychological treatment should be offered, rather than fluoxetine at 60 mg. If a woman is already taking fluoxetine at 60 mg, she should be advised not to breastfeed.
Bipolar disorder

These recommendations are from the NICE clinical guideline on the management of bipolar disorder (see section 6 for details).

Although the risk of relapse of treated and untreated bipolar disorder is the same during pregnancy as at other times, women who are pregnant are more likely to stop treatment and this is often unplanned and abrupt. During the postnatal period the risk of relapse is much greater for women who are not receiving treatment than at other times, and may be higher than 50%.

Pregnant women with bipolar disorder who are stable on an antipsychotic

1.4.8.22 If a pregnant woman with bipolar disorder is stable on an antipsychotic and likely to relapse without medication, she should be maintained on the antipsychotic, and monitored for weight gain and diabetes.

Women with bipolar disorder planning a pregnancy

1.4.8.23 If a woman who needs antimanic medication plans to become pregnant, a low-dose typical or atypical antipsychotic should be the treatment of choice.

1.4.8.24 If a woman with bipolar disorder planning a pregnancy becomes depressed after stopping prophylactic medication, psychological therapy (CBT) should be offered in preference to an antidepressant because of the risk of switching to mania associated with antidepressants. If an antidepressant is used, it should usually be an SSRI (but not paroxetine) and the woman should be monitored closely.

Women with bipolar disorder who have an unplanned pregnancy

1.4.8.25 If a woman with bipolar disorder has an unplanned pregnancy and is stopping lithium as prophylactic medication, an antipsychotic should be offered.
Pregnant women with acute mania or depressive symptoms

Acute mania

1.4.8.26 If a pregnant woman who is not taking medication develops acute mania, a typical or an atypical antipsychotic should be considered. The dose should be kept as low as possible and the woman monitored carefully.

1.4.8.27 If a pregnant woman develops acute mania while taking prophylactic medication, prescribers should:

- check the dose of the prophylactic agent and adherence
- increase the dose if the woman is taking an antipsychotic, or consider changing to an antipsychotic if she is not
- if there is no response to changes in dose or drug and the patient has severe mania, consider the use of ECT, lithium and, rarely, valproate.

1.4.8.28 If there is no alternative to valproate, augmenting it with antimanic medication (but not carbamazepine) should be considered.

Depressive symptoms

1.4.8.29 For mild depressive symptoms in pregnant women with bipolar disorder the following should be considered, in this order:

- self-help approaches such as guided self-help and C-CBT
- brief psychological treatments (including counselling, CBT and IPT)

1.4.8.30 For moderate to severe depressive symptoms in pregnant women with bipolar disorder the following should be considered:

- psychological treatment (CBT) for moderate depression
- combined medication and structured psychological treatments for severe depression.
1.4.8.31 If prescribing medication for moderate to severe depressive symptoms in a pregnant woman with bipolar disorder, quetiapine alone, or SSRIs (but not paroxetine) in combination with prophylactic medication should be preferred because SSRIs are less likely to be associated with switching to mania than the tricyclic antidepressants. Monitor closely for signs of switching and stop the SSRI if the woman starts to develop manic or hypomanic symptoms.

Care in the perinatal period

1.4.8.32 After delivery, if a woman with bipolar disorder who is not on medication is at high risk of developing an acute episode, prescribers should consider establishing or reinstating medication as soon as the woman is medically stable (once the fluid balance is established).

1.4.8.33 If a woman maintained on lithium is at high risk of a manic relapse in the immediate postnatal period, augmenting treatment with an antipsychotic should be considered.

Women with bipolar disorder who wish to breastfeed

1.4.8.34 Women with bipolar disorder who are taking psychotropic medication and wish to breastfeed should be offered a prophylactic agent that can be used when breastfeeding. The first choice should be an antipsychotic.

Schizophrenia

This section should be read in conjunction with the NICE clinical guideline on the treatment and management of schizophrenia (see section 6 for details).

Women with schizophrenia who are planning a pregnancy or pregnant

1.4.8.35 Women with schizophrenia who are planning a pregnancy or pregnant should be treated according to the NICE clinical guideline on schizophrenia, except that if the woman is taking an atypical
antipsychotic consideration should be given to switching to a low-dose typical antipsychotic, such as haloperidol, chlorpromazine or trifluoperazine.

Women with schizophrenia who are breastfeeding

1.4.8.36 A woman with schizophrenia who is breastfeeding should be treated according to the NICE clinical guideline on schizophrenia, except that women receiving depot medication should be advised that their infants may show extrapyramidal symptoms several months after administration of the depot. These are usually self-limiting.

1.5 The organisation of services

The structure of services varies in different parts of the country because of local factors including the organisation of existing mental health services, the demographic profile of the population and geographical issues. The recommendations below are about how the components of services may be adapted to meet local needs and deliver integrated care. This is by the development of managed clinical networks involving linked groups of services in primary, secondary and tertiary care, to ensure the effective provision of high quality clinical services. An example is given in appendix C.

1.5.1.1 Clinical networks should be established for perinatal mental health services, managed by a coordinating board of healthcare professionals, commissioners, managers, and service users and carers. These networks should provide:

- a specialist multidisciplinary perinatal service in each locality, which provides direct services, consultation and advice to maternity services, other mental health services and community services; in areas of high morbidity these services may be provided by separate specialist perinatal teams
- access to specialist expert advice on the risks and benefits of psychotropic medication during pregnancy and breastfeeding
• clear referral and management protocols for services across all levels of the existing stepped-care frameworks for mental disorders, to ensure effective transfer of information and continuity of care
• pathways of care for service users, with defined roles and competencies for all professional groups involved.

1.5.1.2 Each managed perinatal mental health network should have designated specialist inpatient services and cover a population where there are between 25,000 and 50,000 live births a year, depending on the local psychiatric morbidity rates.

1.5.1.3 Specialist perinatal inpatient services should:
• provide facilities designed specifically for mothers and infants (typically with 6–12 beds)
• be staffed by specialist perinatal mental health staff
• be staffed to provide appropriate care for infants
• have effective liaison with general medical and mental health services
• have available the full range of therapeutic services
• be closely integrated with community-based mental health services to ensure continuity of care and minimum length of stay.

2 Notes on the scope of the guidance

NICE guidelines are developed in accordance with a scope that defines what the guideline will and will not cover. The scope of this guideline is available from www.nice.org.uk/page.aspx?o=232805
How this guideline was developed

NICE commissioned the National Collaborating Centre for Mental Health to develop this guideline. The Centre established a Guideline Development Group (see appendix A), which reviewed the evidence and developed the recommendations. An independent Guideline Review Panel oversaw the development of the guideline (see appendix B).

There is more information in the booklet: ‘The guideline development process: an overview for stakeholders, the public and the NHS’ (second edition, published April 2006), which is available from www.nice.org.uk/guidelinesprocess or by telephoning 0870 1555 455 (quote reference N1113).

3 Implementation

The Healthcare Commission assesses the performance of NHS organisations in meeting core and developmental standards set by the Department of Health in ‘Standards for better health’, issued in July 2004. Implementation of clinical guidelines forms part of the developmental standard D2. Core standard C5 says that national agreed guidance should be taken into account when NHS organisations are planning and delivering care.

NICE has developed tools to help organisations implement this guidance (listed below). These are available on our website (www.nice.org.uk/CG045).

- Slides highlighting key messages for local discussion.
- Costing report to estimate the savings and costs associated with implementation
- Implementation advice on how to put the guidance into practice and national initiatives which support this locally.
- Audit criteria to monitor local practice.
4 Research recommendations

The Guideline Development Group has made the following recommendations for research, based on its review of evidence, to improve NICE guidance and patient care in the future.

4.1 Decision aids for helping pregnant and breastfeeding women to make decisions about their care

A randomised controlled trial should be conducted to compare usual care with usual care plus the use of decision aids designed to help pregnant and breastfeeding women with mental disorders to make informed decisions about their care. Outcomes should include the development of agreed care plans, the successful implementation of the agreed care plans, and satisfaction with the care plan and the communication about the planning.

Why this is important

Psychotropic drugs carry teratogenic risks during pregnancy and are often present in breast milk. It is therefore important that women are enabled to make informed decisions about treatment choices.

4.2 Interventions for women with subthreshold symptoms of depression and/or anxiety

A randomised controlled trial should be conducted to compare the efficacy and cost effectiveness of an intervention for women with chronic subthreshold symptoms of depression and anxiety with usual maternity and primary care. The intervention should be a brief psychoeducational intervention. Primary outcome measures may include symptoms of depression and anxiety, and there should be a 1-year follow-up period.

Why this is important

Depression and anxiety in the postnatal period can have a serious impact on a woman’s ability to cope with day-to-day life, including looking after her infant and other children in the family. Even subthreshold symptoms can affect a woman’s general functioning and the development of her infant. Treating
subthreshold symptoms may prevent escalation of symptoms into a diagnosis of depression or anxiety, and also improve a woman’s ability to cope.

**4.3 Assessing managed perinatal networks**

An evaluation of managed perinatal networks should be undertaken to compare the effectiveness of different network models in delivering care. It should cover the degree of integration of services, the establishment of common protocols, the impact on patients’ access to specified services and the quality of care, and staff views on the delivery of care.

**Why this is important**

Although only a relatively small number of women have a serious mental disorder during pregnancy and the postnatal period, those who do may need specialist care, including access to knowledge about the risks of psychotropic medication, specialist inpatient beds and additional intrapartum care. Managed clinical perinatal networks may be a way of providing this level of care in a cost effective and clinically effective way by allowing access to specialist care for all women who need it, whether or not they live near a specialist perinatal team.

**4.4 Prescription patterns**

A study of the General Practice Research Database should be undertaken to assess the impact of pregnancy on changing psychotropic medication (including both switching and stopping medication). Outcomes should include relapse of mental disorders, exacerbation of symptoms, type and duration of treatment, and birth outcomes.

**Why this is important**

Most women with a mental disorder during pregnancy will be cared for in primary care. Knowing how pregnancy affects the pattern of psychotropic prescription would help to target educational campaigns for healthcare professionals caring for pregnant women.
4.5 Case finding for depression
A validation study should be undertaken of the ‘Whooley questions’ (During the past month, have you often been bothered by feeling down, depressed or hopeless? During the past month, have you often been bothered by having little interest or pleasure in doing things?) in women in the first postnatal year, examining the questions’ effectiveness when used by midwives and health visitors compared with a psychiatric interview.

Why this is important
Depression in the first postnatal year is relatively common and may have a lasting impact on the woman, her baby and other family members. Case finding is most conveniently undertaken by healthcare professionals in regular contact with women, but they do not traditionally have training in mental health. The Whooley questions appear to offer a relatively quick and convenient way of case finding for healthcare professionals who are not specialists in mental health.

5 Other versions of this guideline

5.1 Full guideline
The full guideline, ‘Antenatal and postnatal mental health: clinical management and service guidance’ contains details of the methods and evidence used to develop the guideline. It is published by the National Collaborating Centre for Mental Health, and is available from www.nccmh.org.uk, our website (www.nice.org.uk/CG045fullguideline) and the National Library for Health (www.nlh.nhs.uk).

5.2 Quick reference guide
A quick reference guide for healthcare professionals is also available from www.nice.org/CG045quickrefguide

For printed copies, phone the NHS Response Line on 0870 1555 455 (quote reference number N1201).
5.3 ‘Understanding NICE guidance’
Information for women and their partners/carers (‘Understanding NICE guidance’) is available from www.nice.org.uk/CG045publicinfo

For printed copies, phone the NHS Response Line on 0870 1555 455 (quote reference number N1202).

6 Related NICE guidance


NICE is developing the following guidance (details available from www.nice.org.uk):

• Antenatal care: routine care for the healthy pregnant woman. Update of CG006. NICE clinical guideline. (Publication expected November 2007.)

7 Updating the guideline

NICE clinical guidelines are updated as needed so that recommendations take into account important new information. We check for new evidence 2 and 4 years after publication, to decide whether all or part of the guideline should be updated. If important new evidence is published at other times, we may decide to do a more rapid update of some recommendations.
Appendix A: The Guideline Development Group

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Appendix B: The Guideline Review Panel

The Guideline Review Panel is an independent panel that oversees the development of the guideline and takes responsibility for monitoring adherence to NICE guideline development processes. In particular, the panel ensures that stakeholder comments have been adequately considered and responded to. The Panel includes members from the following perspectives: primary care, secondary care, lay, public health and industry.

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Appendix C: Model of a perinatal clinical network

Key
- Patient flow
- Information and education flow

Coordinating centre
- Coordinate associated inpatient unit(s)
- Coordinating board
- Network manager
- Local specialist service provision
- Protocol development and monitoring

Specialist perinatal services
- Local specialist provision
- Managing admissions
- Consultancy and training to primary and secondary care

Specialist mental health services
- Local service provision
- Assessment and referral
- Consultancy and advice

Primary care services
- Local service provision
- Assessment and referral

Maternity services
- Local service provision
- Assessment and referral

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