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Be vigilant for perinatal mental health problems

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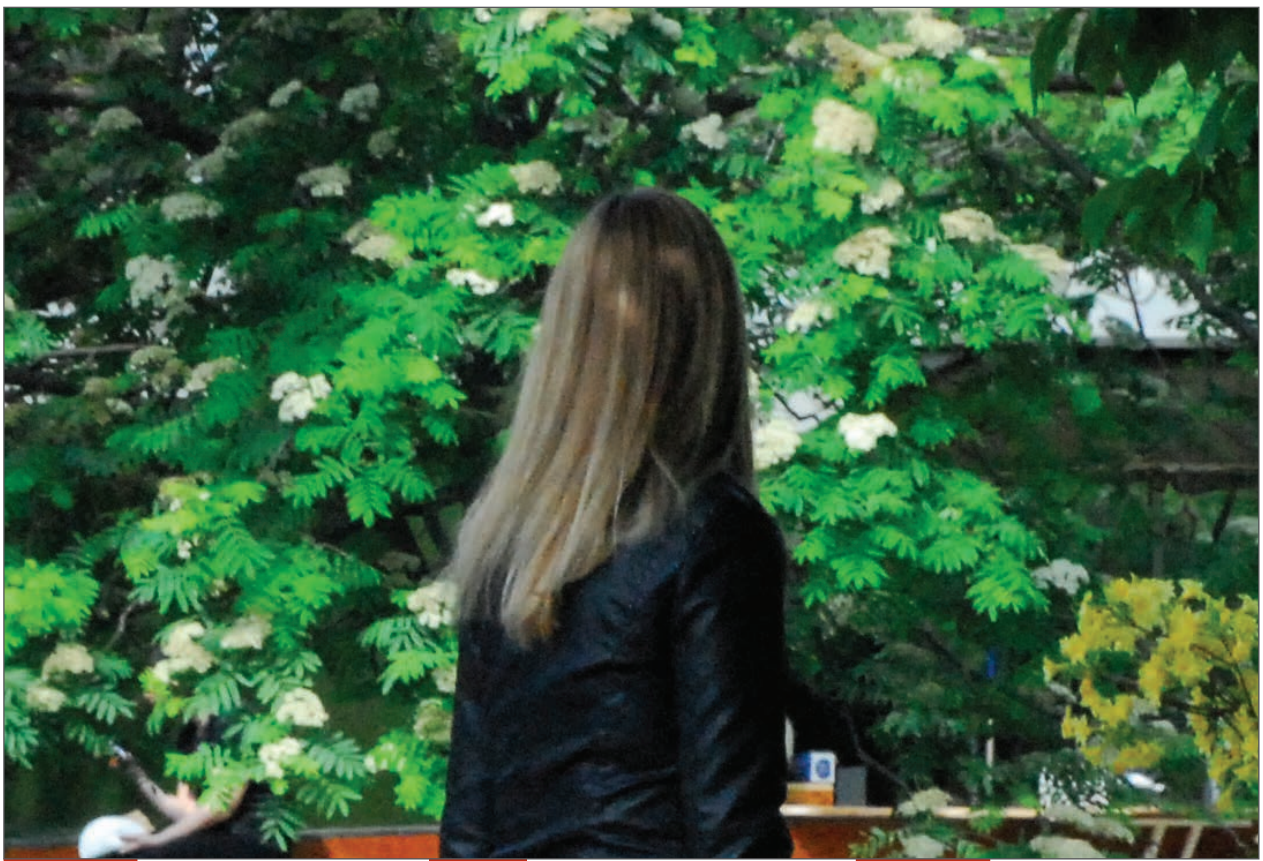
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Which women are at increased risk?

PREGNANCY, CHILDBIRTH AND THE PUERPERAL PERIOD (UP TO THE END OF THE FIRST POSTNATAL year) are important milestones in a woman's life. They bring physical and psychological changes that necessitate adjustment to new roles and responsibilities, and increased contact with medical and obstetric services for routine health checks.

Pregnancy itself does not appear to be associated with an increased risk of new psychiatric diagnosis in general, risk of disorder recurrence, or deterioration.[1,2]

In contrast, the postnatal period appears to be associated with higher rates of adjustment disorder, generalised anxiety disorder, and depression.[3-6] Women who have a history of serious mental illness are at higher risk of developing a postpartum relapse, even if they have been well during pregnancy.[7,8]

How should patients be assessed?

MORTALITY

Psychiatric causes of maternal death (i.e. during or up to six weeks after the end of pregnancy) are more common than some direct causes of death;[9] UK rates increased from 13/100,000 in 2006-2008 to 16/100,000 in 2010-2012, higher than, for example, mortality caused by haemorrhage or anaesthetic complications of childbirth.[9] In the period between 2006 and 2008, 67 women died from psychiatric causes. The main cause of death was suicide (29 women), followed by accidental overdose from drug misuse (10 women).[10]

Which patients should be referred?

MOOD DISORDERS

A range of healthcare professionals, for example, the GP, midwife or psychiatrist may first identify early warning signs indicating a possible mood disorder. It is important that information is shared between healthcare professionals, as classic signs of depression (low mood, poor sleep, poor appetite) may be difficult to spot in the postnatal period. For example, a mother suffering from depression may be withdrawn, miss appointments, and perhaps will initially not bond well with her baby, leading to»

Box 1

Screening tools for depression and anxiety

Two Question Depression Screen
- 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?

Generalized Anxiety Disorder scale (GAD-2)
- During the past month, have you been feeling nervous, anxious or on edge?
- During the past month, have you not been able to stop or control worrying?

Score
Not at all = 0, several days = 1, more than half the days = 2, nearly every day = 3

www.nhs.uk/Conditions/Postnataldepression/Pages/Diagnosis.aspx

signs of distress in the baby, which may then further demoralise the mother. As the postnatal period is typically seen as being a happy period, it may be even more difficult and less acceptable for a mother with depression to report low mood and other associated symptoms.

Baby blues occurs in 30-80% of women in the first weeks postpartum. Women complain of fatigue, tearfulness, and difficulty concentrating. It is transient, starting in the first few days after delivery and resolving by day seven to ten.[11] If it continues, the mother may be suffering from postnatal depression.

'In the postpartum period, women with bipolar disorder have a high risk of a severe relapse'

Postnatal depression is more severe, follows a chronic course and may relapse outside the perinatal period.[12,13] Although 13% of patients (combined point prevalence) already have depression in pregnancy, the majority tend to be diagnosed after delivery: up to 19% from childbirth to three months postpartum.[14] Prevalence of depression in the postnatal period is increased,[3,6] but it is possible that some such cases had already begun in pregnancy and represent late diagnoses.[15]

BIPOLAR AFFECTIVE DISORDER

The limited evidence available suggests that the incidence and relapse rates for bipolar disorder and schizophrenia are probably no higher in pregnant women than in women who are not pregnant.[15-17]

Bipolar disorder may relapse in pregnancy, because women decide to stop their medication, worried about its teratogenic potential.[18] It may also present as a first depressive episode in pregnancy or the postnatal period. It is estimated that approximately 13% of women with bipolar II disorder are depressed in pregnancy and 22% in the postnatal period.[15,16] Women with bipolar II disorder may present with a first depressive episode in the perinatal period, and may be diagnosed with unipolar depression, if hypomanic features are not identified in the history. This would lead to inappropriate treatment with antidepressants, possibly inducing rapid cycling or a hypomanic or manic episode.

In the postpartum period, women have a high risk of experiencing a severe relapse.[3,5,19,20]

POSTPARTUM PSYCHOSIS

Postpartum psychosis has a sudden and dramatic presentation with delusions, mania, severe depression, or mixed episodes, with wide fluctuations of symptoms and severe mood swings. It can present within the first 90 days after childbirth, but usually starts in the first postnatal days, or even in the first hours after giving birth, and leads to high psychiatric admission rates.[3,17,21,22] The incidence is between 0.5 and 1 per 1,000 deliveries.[23,24]

Risk factors include a previous episode of postpartum psychosis, a family history of postpartum psychosis, and a personal or family history of bipolar disorder.[8,25] Delusions and hallucinations may relate to the baby, are usually abrupt in onset and often fluctuate widely.[17] Bewilderment may be a prominent feature.[21]

ANXIETY DISORDERS

It is difficult to make a clear assessment of anxiety disorders in pregnancy and postpartum, as they are comorbid with depressive disorders[15,16] and much research uses self-report questionnaires instead of psychiatric diagnosis. Some studies show that the prevalence of anxiety disorders among pregnant and postpartum women is comparable with women who are not pregnant,[2] while others find higher rates of anxiety. These include panic disorder, generalised anxiety disorder,[4] and obsessive compulsive disorder.[26]

'Postnatal depression follows a chronic course and may relapse outside the perinatal period'

However, there are also specific anxiety disorders related to pregnancy and parturition, such as tokophobia (phobia of childbirth)[27] and post traumatic stress disorder, following a traumatic childbirth, stillbirth or premature delivery.[28,29]

Having a personal or family history of mental illness may already put some patients in contact with mental health services.[30,31]

Being single or dealing with the break up of a relationship, having a violent and abusive partner, pregnancy complications, such as traumatic birth, caesarean section, perinatal death, and adverse life events with socioeconomic impact, such as loss of income and job, or being currently unemployed increases risk. There is no conclusive evidence about the effect of the mother's age or educational status.[2,6,15,16,22,32]

SCREENING TOOLS

Depression and anxiety disorders

NICE recommends using the Two Question Depression Screen and the Generalized Anxiety Disorder[33] scale from the booking visit through to one year postpartum, see box 1, above.

Box 2

Edinburgh Postnatal Depression Scale (EPDS)[31]

1 I have been able to laugh and see the funny side of things
2 I have looked forward with enjoyment to things
3 I have blamed myself unnecessarily when things went wrong
4 I have been anxious or worried for no good reason
5 I have felt scared or panicky for no very good reason
6 Things have been getting on top of me
7 I have been so unhappy that I have had difficulty sleeping
8 I have felt sad or miserable
9 I have been so unhappy that I have been crying
10 The thought of harming myself has occurred to me

www.nhs.uk/Conditions/Postnataldepression/Pages/Diagnosis.aspx

A positive response to depression or anxiety questions warrants a full assessment using either PHQ-9 or the well validated Edinburgh Postnatal Depression Scale (EPDS) for depression, see box 2 above,[34-36] or the Generalized Anxiety Disorder-7 for anxiety. A score above 14 (out of 30) in pregnancy, or 10 postpartum on the EPDS, is widely used to indicate probable depressive disorder and should warrant a full assessment.[36]

'A positive response to depression or anxiety questions warrants a full assessment'

A recent systematic review of 37 studies concluded that, as a screening tool, EPDS was free, easy to administer, appeared useful across cultures and was generally acceptable to women.[36] Sensitivities and specificities for detecting major depression are variable, but many studies have found it to be a helpful adjunct to clinical assessment.[32]

The EPDS is non-specific in that it detects a range of different diagnoses including adjustment disorder, post traumatic stress disorder and borderline personality disorder.[37]

Drug and alcohol abuse

Clinicians should be vigilant for drug and alcohol misuse during the perinatal period. The Alcohol Use Disorders Identification Test (AUDIT; www.talkingalcohol.com/files/pdfs/WHO_audit.pdf)[38] is recommended in these women as part of a general discussion about mental health and wellbeing.

PSYCHOSOCIAL ASSESSMENT

A thorough psychosocial assessment involving the mother as well as a third party, partner or close relative is required. This includes a full medical, psychiatric history and family history, covering perinatal or antenatal problems, a mental state examination and a risk assessment.

Monitoring in the antenatal and perinatal period should focus on common disorders, such as depression and anxiety.[39] Changes in appetite may be normal during pregnancy, but marked diet changes can be the result of mental illness. Body shape in pregnancy and after birth can be of particular concern for women with eating disorders.

Feeling excited, elated or high, needing less sleep or not being able to sleep, feeling energetic and being overtalkative may be early postpartum symptoms in women, who later develop puerperal psychosis.[40]

The clinical picture usually overlaps with severe mood symptoms and can manifest as a mixture of depression, mania, mixed affective state, hallucinations, delusions and thought disorder. Sometimes it can resemble delirium, with altered level of consciousness, inability to concentrate, rapid onset and fluctuation of symptoms.[41]

'Delusional homicidal ideas towards the baby can occur in puerperal psychosis'

A detailed risk assessment should involve self-neglect, self-harm, suicide, as well as risk to others, especially the baby, violence, abuse and child maltreatment.

Delusional homicidal ideas towards the baby can occur in puerperal psychosis, and patients should not be left alone with their infants until fully recovered.[41]

Perinatal disorders can be difficult to distinguish from severe chronic conditions, such as personality disorders. Repeat assessments help to separate women with transient stress symptoms from those with more enduring problems.[42]

A team member with relevant experience should examine social needs. This may include living conditions, attitudes towards pregnancy, mother-baby relationship, quality of interpersonal relationships, and history of social isolation, domestic violence, abuse or trauma. Financial problems, employment, carer responsibilities and learning disability may be considered. Of high importance is agreement on the level of contact and support needed by a woman during pregnancy and the weeks after birth.

EXAMINATION AND INVESTIGATIONS

Physical examination is essential to exclude any coexisting medical conditions. Staff should monitor women taking psychiatric medication that may lead to discontinuation symptoms in mother and baby and to neonatal adaption syndromes. This includes weight gain and gestational diabetes during pregnancy.[39] Blood tests include routine haematology and biochemistry, thyroid function tests, and prolactin.

MANAGEMENT

Ideally, management of perinatal mental health should begin before conception. Women should be aware of the effect of their mental health problem and its treatment on a potential pregnancy and subsequent parenting and the effect pregnancy might have on their mental health.[39] Mothers with mental illness may require more careful monitoring to meet their physical health needs.[43] The perceived needs of the fetus should not eclipse the mother's needs, as effective management of the mother also has benefits for the rest of the family, the child[44] and the partner's mental health.[45]

A stepped approach to management entails low-key interventions for less severe illnesses, building up to »

key points

SELECTED BY

Dr Peter Saul
GP, Wrexham and Associate GP Dean for North Wales

The postnatal period appears to be associated with higher rates of adjustment disorder, generalised anxiety disorder, and depression. Women who have a history of serious mental illness are at higher risk of developing a postpartum relapse, even if they have been well during pregnancy.

Psychiatric causes of maternal death are more common than some direct causes of death. UK rates increased from 13/100,000 in 2006-08 to 16/100,000 in 2010-12, higher than, for example, mortality caused by haemorrhage or anaesthetic complications of childbirth. In the period between 2006 and 2008, 67 women died from psychiatric causes. The main cause of death was suicide (29 women).

Postnatal depression is more severe than baby blues, follows a chronic course and may relapse outside the perinatal period. Although 13% of patients already have depression in pregnancy, the majority tend to be diagnosed after delivery; up to 19% from childbirth to three months postpartum.

NICE recommends using the Two Question Depression Screen and the Generalized Anxiety Disorder scale from the booking visit through to one year postpartum. A positive response to depression or anxiety questions warrants a full assessment using either PHQ-9 or the Edinburgh Postnatal Depression Scale.

The incidence and relapse rates for bipolar disorder and schizophrenia are probably no higher in pregnant women than in women who are not pregnant. Bipolar disorder may relapse in pregnancy because women decide to stop their medication because of concern about its teratogenic potential. It may also present as a first depressive episode in pregnancy or the postnatal period. In the postpartum period women have a high risk of experiencing a severe relapse.

The incidence of postpartum psychosis is between 0.5 and 1 per 1,000 deliveries and has a sudden and dramatic presentation with delusions, mania, severe depression, or mixed episodes with wide fluctuations of symptoms and severe mood swings. It can present within 90 days after childbirth but usually starts in the first postnatal days, or even in the first hours after giving birth, and leads to high psychiatric admission rates.

A stepped approach to management entails low-key interventions for less severe illnesses, building up to specialist treatments for more severe and risky conditions. Psychological therapies may be preferred to drug therapy in the perinatal period to avoid risks to the child.

Benzodiazepines should be avoided in the perinatal period, except for short-term treatment of severe agitation. Sodium valproate, carbamazepine and lamotrigine should not be given in the perinatal period.

specialist treatments for more severe and risky conditions.

Psychological therapies may be preferred over pharmacotherapy in the perinatal period to avoid risks to the child. The woman and her family must be helped to weigh up the potential consequences of drug treatment or withdrawal against the consequences of no treatment or a change in treatment.[39]

Risk-benefit analyses change throughout the pregnancy and into the postnatal period, depending on whether the woman breastfeeds. The treatment plan may have to be complex and involve changes in medication, depending on pharmacokinetics or teratogenicity and side effects of drugs changing throughout the trimesters of pregnancy. Women should avoid breastfeeding on carbamazepine, clozapine, lithium or valproate.[39]

Reassurance and psycho-education may be sufficient for baby blues or mild depression and anxiety. Third sector support is available from the National Childbirth Trust (www.nct.org.uk) or the Association for Post Natal Illness (www.apni.org). For moderate to severe depression or anxiety, professional psychotherapy (such as CBT) is recommended, if necessary combined with an antidepressant.[39]

'Postnatal psychotic disorders have a rapid onset and necessitate an urgent response from specialist mental health services'

Benzodiazepines should be avoided in the perinatal period, except for short-term treatment of severe agitation.[39] Insomnia may be addressed most safely with sleep hygiene, but if this is insufficient, promethazine is recommended.[39]

Depot antipsychotic medication is to be avoided in the perinatal period and women on newer antipsychotic drugs require monitoring and advice about the risks of gestational diabetes.

Semi-sodium valproate, which is contraindicated in women of childbearing age, carbamazepine and lamotrigine should not be given in the perinatal period. Sensitive advice about the risk of potential adverse outcomes of the pregnancy and help to stop the medication should be given, if patients become pregnant.

'Suicide continues to be a significant cause of maternal death in the UK'

Lithium is given for bipolar disorder in pregnancy, if antipsychotics have been ineffective in controlling mood. It increases the risk of fetal heart malformations, and high levels in breast milk may be toxic to the infant. Plasma levels must be monitored throughout because of changes in circulating fluid volume, dehydration must be avoided, and lithium must be stopped in labour and restarted immediately postpartum.[39] Psychosis or mania should be recognised and treated early to prevent adverse outcomes for mother and child.[46]

Occasionally electroconvulsive therapy is given in the perinatal period for severe mental illness, particularly when the physical health of the woman or fetus are at risk.

Pregnant women with drug and alcohol problems should be encouraged to detoxify supported by specialist mental health and alcohol services. Where this is not feasible or acceptable, reduction of her substance abuse should be the target. Support should be continued after childbirth, as a woman who has detoxified and then restarts opiates is at high risk of an accidental overdose.[31]

REFERRAL

Maternity services and general practice will usually share the care of pregnant women. It is important that information about mental health, as for physical health, flows freely between these and any other agencies involved. There may be resistance to disclose a psychiatric history, because of stigma and concerns that the baby will be taken into care,[47] but professionals should enquire about any relevant symptoms to ensure adequate assessment and treatment.

It may also be advisable to refer some women planning a pregnancy to a (specialist perinatal) mental health service for preconception counselling.

More than 90% of mental health problems can be managed in primary care.[39] Should the illness be more

severe, require medication, or if there are risks to the mother or fetus, referral to a mental health team is recommended. Guidelines recommend that women are assessed by psychological services within two weeks of referral and that treatment starts within a month.[39] This requires services to be more flexible in approach, with shorter appointments, telephone appointments, or home visits, in order to meet these expectations.

Postnatal psychotic disorders have a rapid onset and necessitate an urgent response from specialist mental health services;[48] women presenting with symptoms should be seen within four hours of referral.[39] Suicide continues to be a significant cause of maternal death in the UK,[31] with infanticide being a rarer complication of maternal mental illness,[49] so that admission to a Mother and Baby Unit may be desirable, although admission of the mother to a psychiatric inpatient unit may be the only choice available.

Specialist advice may also be able to provide reassurance, as mothers with perinatal obsessive-compulsive disorder may report distressing fears that they will harm their child. In such cases, harm to the infant is unlikely.[50]

REFERENCES

1 O'Hara MW, Zekoski EM, Philipps LH et al. Controlled prospective study of postpartum mood disorders: comparison of childbearing and nonchildbearing women. *J Abnorm Psychol* 1990;99(1):3-15
2 Vesga-Lopez O, Blanco C, Keyes K et al. Psychiatric disorders in pregnant and postpartum women in the United States. *Arch Gen Psychiatry* 2008;65(7):805-815
3 Munk-Olsen T, Laursen TM, Pedersen CB et al. New parents and mental disorders: a population-based register study. *JAMA* 2006;296(21):2582-89
4 Ross LE, McLean LM. Anxiety disorders during pregnancy and the postpartum period: A systematic review. *J Clin Psychiatry* 2006;67(8):1285-98
5 Munk-Olsen T, Laursen TM, Mendelson T et al. Risks and predictors of readmission for a mental disorder during the postpartum period. *Arch Gen Psychiatry* 2009;66(2):189-95
6 Ban L, Gibson JE, West J et al. Impact of socioeconomic deprivation on maternal perinatal mental illnesses presenting to UK general practice. *Br J Gen Pract* 2012;62(603):e671-78
7 Wieck A, Kumar R, Hirst AD et al. Increased sensitivity of dopamine receptors and recurrence of affective psychosis after childbirth. *BMJ* 1991;303(6803):613-16
8 Robertson E, Jones I, Haque S et al. Risk of puerperal and non-puerperal recurrence of illness following bipolar affective puerperal (post-partum) psychosis. *Br J Psychiatry* 2005;186:258-59
9 Knight M, Kenyon S, Brocklehurst P et al. Saving Lives, Improving Mothers' Care - Lessons learned to inform future maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2009-2012. National Perinatal Epidemiology Unit, University of Oxford. Oxford. 2014
10 Cantwell R, Clutton-Brock T, Cooper G et al. Saving Mothers' Lives: Reviewing maternal deaths to make motherhood safer: 2006-2008. The Eighth Report of the Confidential Enquiries into Maternal Deaths in the United Kingdom. *BJOG* 2011;118 Suppl 1:1-203
11 Henshaw C. Mood disturbance in the early puerperium: a review. *Arch Womens Ment Health* 2003;6 Suppl 2:S33-42
12 Goodman JH. Postpartum depression beyond the early postpartum period. *J Obstet Gynecol Neonatal Nurs* 2004;33(4):410-420
13 Wisner KL, Perel JM, Peindl KS et al. Timing of depression recurrence in the first year after birth. *J Affect Disord* 2004;78(3):249-52
14 Gavin NI, Gaynes BN, Lohr KN et al. Perinatal depression: a systematic review of prevalence and incidence. *Obstet Gynecol* 2005;106(5 Pt 1):1071-83
15 Wisner KL, Sit DK, McShea MC et al. Onset timing, thoughts of self-harm, and diagnoses in postpartum women with screen-positive depression findings. *JAMA Psychiatry* 2013;70(5):490-98
16 Lydsdottir LB, Howard LM, Olafsdottir H et al. The mental health characteristics of pregnant women with depressive symptoms identified by the Edinburgh Postnatal Depression Scale. *J Clin Psychiatry* 2014;75(4):393-98
17 Jones I, Chandra PS, Dazzan P et al. Bipolar disorder, affective psychosis, and schizophrenia in pregnancy and the post-partum period. *Lancet* 2014;384(9956): 1789-99
18 Viguera AC, Whitfield T, Baldessarini RJ et al. Risk of recurrence in women with bipolar disorder during pregnancy: prospective study of mood stabilizer discontinuation. *Am J Psychiatry* 2007;164(12): 1817-24
19 Jones I, Craddock N. Bipolar disorder and childbirth: the importance of recognising risk. *Br J Psychiatry* 2005;186:453-54
20 Di Florio A, Forty L, Gordon-Smith K et al. Perinatal episodes across the mood disorder spectrum. *JAMA Psychiatry* 2013;70(2):168-75
21 Jones I, Heron J, Roberston Blackmore E. Puerperal psychosis. In: Kohen D (Ed). Oxford Textbook of Women and Mental Health, pp 179-186. Oxford University Press. Oxford. 2010
22 Kendell RE, Chalmers JC, Platz C. Epidemiology of puerperal psychoses. *Br J Psychiatry* 1987;150: 662-73
23 Terp IM, Mortensen PB. Post-partum psychoses. Clinical diagnoses and relative risk of admission after parturition. *Br J Psychiatry* 1998;172:521-26
24 Nager A, Johansson LM, Sundquist K. Are sociodemographic factors and year of delivery associated with hospital admission for postpartum psychosis? A study of 500,000 first-time mothers. *Acta Psychiatr Scand* 2005;112(1):47-53
25 Munk-Olsen T, Laursen TM, Pedersen CB et al. Family and partner psychopathology and the risk of postpartum mental disorders. *J Clin Psychiatry* 2007;68(12):1947-53
26 Russell EJ, Fawcett JM, Mazmanian D. Risk of obsessive-compulsive disorder in pregnant and postpartum women: a meta-analysis. *J Clin Psychiatry* 2013;74(4):377-85
27 Saisto T, Halmesmaki E. Fear of childbirth: a neglected dilemma. *Acta Obstet Gynecol Scand* 2003; 82(3):201-08
28 Turton P, Evans C, Hughes P. Long-term psychosocial sequelae of stillbirth: phase II of a nested case-control cohort study. *Arch Womens Ment Health* 2009;12(1):35-41
29 Grekin R, O'Hara MW. Prevalence and risk factors of postpartum posttraumatic stress disorder: a meta-analysis. *Clin Psychol Rev* 2014;34(5):389-401
30 Jones I, Craddock N. Familiality of the puerperal trigger in bipolar disorder: results of a family study. *Am J Psychiatry* 2001;158(6):913-17
31 Oates M. Perinatal psychiatric disorders: a leading cause of maternal morbidity and mortality. *Br Med Bull* 2003;67:219-29
32 Howard LM, Molyneaux E, Dennis CL et al. Non-psychotic mental disorders in the perinatal period. *Lancet* 2014;384(9956):1775-88
33 Kroenke K, Spitzer RL, Williams JB et al. Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. *Ann Intern Med* 2007;146(5):317-25
34 Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiatry* 1987;150:782-86
35 Wisner KL, Parry BL, Piontek CM. Clinical practice. Postpartum depression. *N Engl J Med* 2002; 347(3):194-99
36 Gibson J, McKenzie-McHarg K, Shakespeare J et al. A systematic review of studies validating the Edinburgh Postnatal Depression Scale in antepartum and postpartum women. *Acta Psychiatr Scand* 2009; 119(5):350-64
37 Harvey ST, Pun PK. Analysis of positive Edinburgh depression scale referrals to a consultation liaison psychiatry service in a two-year period. *Int J Ment Health Nurs* 2007;16(3):161-67
38 Babor TF, Higgins-Biddle JC, Saunders JB et al. The Alcohol Use Disorders Identification Test. World Health Organization. Geneva. 2001
39 National Collaborating Centre for Mental Health. Antenatal and Postnatal Mental Health. NICE Guideline on Clinical Management and Service Guidance. Updated Edition, vol. 192. The British Psychological Society and the Royal College of Psychiatrists. London. 2014
40 Heron J, McGuinness M, Blackmore ER et al. Early postpartum symptoms in puerperal psychosis. *BJOG* 2008;115(3):348-53
41 Pedersen CA. Postpartum mood and anxiety disorders: a guide for the nonpsychiatric clinician with an aside on thyroid associations with postpartum mood. *Thyroid* 1999;9(7):691-97
42 Austin MP, Priest SR. Clinical issues in perinatal mental health: new developments in the detection and treatment of perinatal mood and anxiety disorders. *Acta Psychiatr Scand* 2005;112(2):97-104
43 Judd F, Komiti A, Sheehan P et al. Adverse obstetric and neonatal outcomes in women with severe mental illness: to what extent can they be prevented? *Schizophr Res* 2014;157(1-3):305-09
44 Brand SR, Brennan PA. Impact of antenatal and postpartum maternal mental illness: how are the children? *Clin Obstet Gynecol* 2009;52(3):441-55
45 Lovestone S, Kumar R. Postnatal psychiatric illness: the impact on partners. *Br J Psychiatry* 1993;163:210-16
46 Di Florio A, Smith S, Jones I. Postpartum psychosis. *The Obstetrician and Gynaecologist* 2013;15(3)145-50
47 Dolman C, Jones I, Howard LM. Pre-conception to parenting: a systematic review and meta-synthesis of the qualitative literature on motherhood for women with severe mental illness. *Arch Womens Ment Health* 2013;16(3):173-96
48 Sit D, Rothschild AJ, Wisner KL. A review of postpartum psychosis. *J Womens Health (Larchmt)* 2006; 15(4):352-68
49 Flynn SM, Shaw JJ, Abel KM. Homicide of infants: a cross-sectional study. *J Clin Psychiatry* 2007; 68(10):1501-09
50 Veale D, Freeston M, Krebs G et al. Risk assessment and management in obsessive-compulsive disorder. *BJPsych Advances* 2009;15;332-43

Useful information

For healthcare professionals

Edinburgh Postnatal Depression Scale
www.fresno.ucsf.edu/pediatrics/downloads/edinburghscale.pdf

Generalized Anxiety Disorder (GAD-7)
www.patient.co.uk/doctor/generalised-anxiety-disorder-assessment-gad-7

Alcohol Use Disorders Identification Test
www.talkingalcohol.com/files/pdfs/WHO_audit.pdf

NICE
CG192. Antenatal and postnatal mental health: clinical management and service guidance
www.nice.org.uk/guidance/cg192

For patients

Action Postpartum Psychosis
www.app-network.org

Association for Post Natal Illness
www.apni.org

Birth Trauma Association
www.birthtraumaassociation.org.uk

National Childbirth Trust
www.nct.org.uk/parenting/postnatal-depression

NHS Choices
www.nhs.uk/Conditions/Postnatal depression/Pages/Diagnosis.aspx

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