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Consensus Bundle on Maternal Mental Health:

Perinatal Depression and Anxiety

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Abstract

Perinatal mood and anxiety disorders are among the most common mental health conditions encountered by women of reproductive age. When left untreated, perinatal mood and anxiety disorders can have profound adverse effects on women and their children, ranging from increased risk of poor adherence to medical care, exacerbation of medical conditions, loss of interpersonal and financial resources, smoking and substance use, suicide, and infanticide. Perinatal mood and anxiety disorders are associated with increased risks of maternal and infant mortality and morbidity and are recognized as a significant patient safety issue. In 2015, the Council on Patient Safety in Women's Health Care convened an interdisciplinary workgroup to develop an evidence-based patient safety bundle to address maternal mental health. The focus of this bundle is perinatal mood and anxiety disorders. The bundle is modeled after other bundles released by the Council on

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Patient Safety in Women's Health Care and provides broad direction for incorporating perinatal mood and anxiety disorder screening, intervention, referral, and follow-up into maternity care practice across health care settings. This commentary provides information to assist with bundle implementation.

The *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* operationally categorizes and defines a variety of mental health disorders.¹ Perinatal mood and anxiety disorders are among the classes of psychiatric conditions commonly encountered in women of reproductive age. Perinatal depression, one of the most common complications of pregnancy, affects one in every seven women.^{2,3} Likewise, perinatal anxiety disorder affects a significant number of women. Prevalence estimates of prenatal anxiety range from 13–21%, with postpartum prevalence estimated at 11–17%.⁴ When left untreated, perinatal mood and anxiety disorders are associated with adverse effects for women and their children. Depression with peripartum onset, or perinatal depression, refers to a major depressive episode occurring during pregnancy or within 4 weeks after birth.¹ A major depressive episode is defined as a depressed mood or anhedonia plus at least five associated depressive symptoms occurring over a 2-week period and interfering with daily functioning.¹

Maternal depression and anxiety are associated with adverse perinatal outcomes, including an increased risk of poor adherence to medical care, poor nutrition (either inadequate or excessive gestational weight gain), loss of interpersonal and financial resources, and smoking and substance abuse with their attendant risks.^{5,6} Owing to the prevalence of perinatal mood and anxiety disorders and the potential effects on both maternal and child health, optimizing maternal mental health care represents an important patient safety issue. Similar to depression, perinatal anxiety is associated with adverse pregnancy and neonatal outcomes and insecure maternal—newborn attachment⁴ and is a strong predictor of perinatal depression.⁷ Sixty percent of women with perinatal depression have pre-existing comorbid psychiatric disorders; of these, more than 80% are anxiety disorders.³

The American College of Obstetricians and Gynecologists (the College), the American College of Nurse-Midwives, and the U.S. Preventive Services Task Force all recommend universal screening of pregnant and postpartum women for depression as one component of quality obstetric care. 8–10 In addition to these recommendations, many states legally mandate perinatal depression screening. 11,12 However, screening alone does not improve perinatal outcomes. Systems must be in place to ensure consistent screening with appropriate assessment tools, interventions, and monitoring for women with identified perinatal mood and anxiety disorders.

In response to increasing recognition of maternal mental health as a critical component of quality perinatal care and maternal safety and the critical role of maternity care providers in diagnosing and treating maternal mental health conditions, the Council on Patient Safety in Women's Health Care convened an interdisciplinary workgroup to develop a maternal mental health safety bundle based on existing evidence-based recommendations and actionable best practices (Box 1). The bundle, "Maternal Mental Health: Perinatal Depression and Anxiety," does not introduce new guidance but summarizes existing

recommendations and pairs them with resources to aid in effectively implementing best practices in all maternity care settings. The following consensus document is designed to expand on the patient safety bundle by offering health care providers the resources needed to successfully implement the bundle domains—*Readiness, Recognition and Prevention, Response, and Reporting and Systems Learning*—in a wide variety of care settings.

READINESS (EVERY CLINICAL CARE SETTING)

The *Readiness* domain includes four areas of focus to be addressed in every clinical care setting to prepare health care providers for effectively identifying maternal mental health issues and triggering a treatment plan. We recognize that the capacity of each health care provider's practice to implement all bundle elements will vary.

1. Identify Mental Health Screening Tools to be Made Available in Every Clinical Setting

Without consistent, validated screening, perinatal mood and anxiety disorders often go unrecognized by clinicians, patients, and families because common perinatal mood and anxiety disorder symptoms, such as changes in sleep patterns, appetite, and anxiety, are attributed to the normal physiologic changes of pregnancy, the unique neuroendocrine environment, or the expected psychosocial adjustments of pregnancy and newborn care. This is compounded by evidence that, even when women know something is wrong, the vast majority (more than 80%) will not report symptoms to a health care provider. ¹³

When choosing a screening instrument, characteristics to consider include availability, cost, ease of administration and interpretation, validity and acceptability, and sensitivity and specificity; data on these factors are available for nine depression screening instruments studied in perinatal populations. ^{14,15} The College Committee Opinion on screening for perinatal depression identifies seven of these as acceptable for use in pregnant and postpartum women.⁸ Information for these seven depression screening instruments is presented in Table 1. Four are freely available in multiple languages, are self-administered, take little time to complete, are scored by the clinical care team, and are considered with regard to established cut-points—they are the Edinburgh Postnatal Depression Scale, the Patient Health Questionnaire 9, the Center for Epidemiologic Studies Depression Scale, and the Zung Self-rating Depression Scale. Of these four, the Patient Health Questionnaire 9 and the Edinburgh Postnatal Depression Scale have been validated in perinatal populations. The Edinburgh Postnatal Depression Scale includes anxiety-relevant questions. 14,15 Although screening tools are most commonly used as standalone resources, screening first with the following two short questions may be considered to help reduce false-positive or falsenegative results: 1) During the past month, have you often been bothered by feeling down, depressed, or hopeless? and 2) During the past month, have you often been bothered by having little interest or pleasure in doing things?¹⁴ If either question is answered in the affirmative, the administration of a more specific instrument should be considered.

Although not the focus of this bundle, bipolar disorder is an important differential diagnosis for women meeting diagnostic criteria for a major depressive disorder¹ with perinatal onset and should be considered. Bipolar disorder includes both depression and irritable or elevated mood states. In women, depression is the predominant mood state, and bipolar disorder

frequently is misdiagnosed as unipolar depression. Misdiagnosis may lead to both inappropriate treatment with selective serotonin reuptake inhibitors and a manic episode. It is recommended that a screen for bipolar disorder, such as the Mood Disorders Questionnaire or the World Health Organization Composite International Diagnostic Interview-Based Bipolar Disorder Screening Scale, be used before prescribing antidepressants. 12,16,17 If the Mood Disorders Questionnaire or other bipolar screen is positive, the patient should be referred to psychiatric care as soon as possible. 18

2. Establish a Response Protocol and Identify Screening Tools for Use Based on Local Resources

Consistent application of the identified screening tools is critically important. Staff education about the selected tool and the importance of screening during the perinatal period aids in consistent application of the practice protocol. It may be beneficial to inform patients that screening is a routine aspect of care to reduce any associated stigma or barriers to completion.¹⁹

To aid in referrals for positive screening results, it is vital to identify existing community-based maternal mental health care providers and resources to improve resource linkage and utilization at the local level. Response protocols will vary based on local resources. Each site should consider the development of a maternal mental health—specific referral list to improve access to community-based maternal mental health care providers, support groups, and resources. These resources can be leveraged to assist in identifying treatment considerations and local mental health care providers. Private payers also may maintain listings of mental health care providers with experience in treating perinatal mood and anxiety disorders. Some examples of helpful resources are outlined in Table 2. The availability of mental health care providers and other support resources varies among communities. In areas where such mental health resources are scarce or nonexistent, maternity care providers may need to consider how distance-mediated resources, such as telemedicine and telephonic consultation and referral, can begin to fill this gap.

3. Educate Clinicians and Office Staff on Use of the Identified Screening Tools and Response Protocol

Each site should establish a system to ensure consistent and effective completion of routine mental health screening. Health care providers should be trained on how to properly conduct the screen, when to administer screening instruments, and how to facilitate effective referral and follow-up. Each site should develop a management algorithm for women with positive screening results, facilitating appropriate interventions and referral to identified resources when a woman screens positive for a perinatal mood and anxiety disorder. These algorithms should clearly delineate additional assessments that mandate immediate escalation of care as well as options for treatment and available emergency support in the event of suicide risk. The Massachusetts Child Psychiatry Access Project for Moms provides another example of symptoms and Edinburgh Postnatal Depression Scale screening cutoffs reflective of each level of a positive screening result along with a stepped-care approach to treatment (https://www.mcpapformoms.org/Toolkits/Toolkit.aspx). Although all components of a management strategy may not be readily available to all health care providers at all institutions, each

element is relevant to planning during the readiness phase. Consideration of the individual elements, such as a stepwise approach to incorporating additional screens depending on risk status, decisions to initiate pharmacotherapy, and consideration as to how to access psychotherapy or crisis resources, may be more challenging but is relevant in settings with fewer resources.

4. Identify an Individual Who Is Responsible for Driving Adoption of the Identified Screening Tools and Response Protocol

To facilitate usage, each site should consider identifying an individual who is responsible for driving adoption of the identified screening tools and response protocol. This individual is responsible for communicating the importance of the tools and helping to ensure that all health care providers and office staff work toward consistent usage.

RECOGNITION AND PREVENTION (EVERY WOMAN)

The *Recognition and Prevention* domain addresses three areas for incorporation into the care of every woman. Recognition of maternal mental health issues allows for early intervention and facilitates appropriate management and referral processes, with the goal of preventing or ameliorating adverse outcomes.

5. Obtain Individual and Family Mental Health History

Many of the well-accepted risk factors for mental illness can be identified during the initial obstetric visit. Family history is an important risk factor for perinatal depression. ^{20,21} Women with both a family and personal history of depression have been shown to have a more than twofold increased risk for antenatal depression. ²⁰ Further, a history of a mental health disorder, especially anxiety and depression, and a history of psychiatric treatment during either a previous pregnancy or at any time are other well-established risk factors for perinatal depression. Therefore, the comprehensive prenatal intake assessment should include questions about personal medical history and family history of mood disorders and anxiety, as well as current and prior medication use for such conditions.

6. Conduct Validated Mental Health Screening During Appropriately Timed Encounters

Although there is little evidence supporting an optimal screening time or interval, data have shown that, for women who are diagnosed with postpartum depression, 27% enter pregnancy with a mental health disorder, another 33% have onset in pregnancy, and 40% have postpartum onset.³ Recommendations have been made for assessment both during pregnancy and in the postpartum period.¹⁷ Consideration should be given for screening at initiation of obstetric care, again later in pregnancy, and then again in the postpartum period. Regardless of timing, it is critical that internal screening protocols and approaches be established to aid in developing consistency. Existing protocols should not supplant clinical judgment in guiding decisions regarding screening intervals and referrals for women with multiple risk factors.

7. Provide Awareness Education to Women, Family Members, and Other Support Persons

Early identification is shown to predict better outcomes.²² Providing appropriate and timely educational materials related to perinatal depression and anxiety can help patients and family members identify the signs and symptoms of this common disorder of pregnancy and postpartum, ^{19,23} especially given that perinatal mood and anxiety disorders often go undiagnosed and undertreated. The stigma surrounding mental health is well-documented.²⁴ When pregnancy and childbirth are added into the equation, stigma is magnified along with self-doubt and guilt.²³ Timely education about the warning signs and prevalence of perinatal mood and anxiety disorders helps to reduce this stigma, empower women and their families to seek help, and provide information that a woman needs to advocate for herself or others. By including information related to perinatal mood and anxiety disorders along with educational materials on other common pregnancy conditions and complications, mood disorders are normalized, stigma is reduced, and women and families have the information needed to be proactive in identifying signs, symptoms, and risk factors. 19,23 Information about "red flags" is needed to aid family members and support persons in understanding when to ask for help. Helping mothers and families understand the differences between normal anxiety, "baby blues," and perinatal mood and anxiety disorders raises awareness of these conditions. Providing specific resources on how to access services encourages patients to reach out for care and feel confident in treatment.^{3,22} See Table 2 for a listing of existing resources for both patients and health care providers.

RESPONSE (EVERY POSITIVE SCREENING RESULT)

The *Response* domain describes four interventions to be used in all cases of a positive screening result for perinatal mood and anxiety disorders.

8. Initiate a Stage-Based Response Protocol for a Positive Mental Health Screening Result

Having an algorithm in place to respond to a positive screening result for depression, anxiety, and suicidal or homicidal ideation is important. Because perinatal mood and anxiety disorders are common and can be complex, the initial response to a positive screening result should focus on determining maternal and infant (and other children's) safety and then following a management algorithm. A significant component of stage-based care is activation of family, friends, and community in a systematic way. Stage-based management plans are important, because screening alone does not appear to improve pregnancy or maternal—child outcomes. Several recent studies have evaluated the effect of universal screening programs that include assessment and initiation of treatment incorporated into perinatal care settings. These programs show promise in improving patient engagement in treatment. They also have demonstrated the feasibility of onsite assessment, the positive effect of training perinatal health care providers, and how access to mental health consultation may lead to better clinical outcomes for perinatal patients. Section 25–27

Psychotherapy is an important aspect of treatment. A variety of therapy modalities, such as cognitive behavioral therapy,²⁸ have been shown to be effective for perinatal mood and anxiety disorders. Mindfulness-based cognitive therapy is another example of a therapeutic model that appears to reduce the risk of relapse or recurrence in perinatal populations.²⁹

Less resourced communities or individuals, such as those who are non–English speaking, uninsured, or geographically isolated, may experience cultural, logistic, and financial barriers to accessing psychotherapy services.

In addition to therapy, strong consideration of initiation (or restart) of selective serotonin reuptake inhibitors or serotonin-norepinephrine reuptake inhibitors in women with moderate to severe symptomatology is important. In addition to therapeutic effect, medication may provide some relief until therapy can be coordinated and follow-up with a mental health care provider can be arranged. It is important to remember that symptom improvement may not be realized until 2–4 weeks after initiation of pharmacologic treatment. After initiation of pharmacotherapy, frequent evaluations and dose adjustment are recommended. Coordination of care among maternity care and mental health care providers can assure safe management of the therapeutic regimen.

9. Activate an Emergency Referral Protocol for Women With Suicidal or Homicidal Ideation or Psychosis

Suicide is a leading cause of maternal mortality, accounting for approximately 20% of postpartum deaths. 30–32 Part of any response to suicidal or homicidal ideation includes an emergency management plan that should provide direction for the following: 1) determining the working diagnosis: severe depression, psychotic features (such as auditory, visual, olfactory, or tactile hallucinations), delirium, or mania; 2) triggering emergency psychiatric consultation, treatment, transport (by ambulance), or admission; 3) facilitating open communication between the perinatal care team and the psychiatric team and defining all members' respective roles during the initial evaluation and initiation of treatment, as well as for additional care and follow-up; and 4) identifying medication, resources, support staff and family, and other tools needed by personnel at each stage. Identification of an emergency process for getting the patient safely to care should occur in the *Readiness* phase of planning before the first emergent event.

10. Provide Appropriate and Timely Support for Women, as Well as Family Members and Staff, as Needed

As with other severe maternal events, a mental health crisis and emergency referral is traumatic for mothers, their children, their families, and other support persons. Although severe symptomatology and psychosis can occur rapidly, the scenario is commonly one of prolonged deterioration leading to suffering and crisis. Family members often feel helpless and uncertain as to how to respond. Anticipatory guidance and follow-up that includes partners and support persons, as well as resource provisions to help before the crisis or deterioration, is both supportive and preventative. See Table 2 for useful resources.

11. Obtain Follow-up From Mental Health Care Providers on Women Referred for Treatment

Establishing seamless transitions in care and follow-up for women with perinatal mood and anxiety disorders among maternity care providers, mental health care professionals, and primary health care providers for care beyond the postpartum period is essential. If the maternity health care provider will not be treating a woman beyond the postpartum period, a plan to provide a bridge to her primary health care provider or mental health care provider is

strongly encouraged to support continuity of care and minimize disruption of psychotherapy and pharmacotherapy. Unlike other severe maternal events with high morbidity and mortality, perinatal mood and anxiety disorders tend to resolve over a more protracted time. If all involved clinical care providers are not part of a shared electronic health record, having patients complete the appropriate forms required for release of information will facilitate communication between mental health care providers and perinatal teams.

REPORTING AND SYSTEMS LEARNING (EVERY CLINICAL CARE SETTING)

The *Reporting and Systems Learning* domain addresses three focus areas for incorporation into every clinical care setting to facilitate learning and guide quality improvement.

12. Establish a Nonjudgmental Culture of Safety

Eliminating judgment is one of the first steps in establishing an atmosphere in a clinical setting in which reporting and systems learning can take place. A culture of safety is defined as one in which people are encouraged to work toward change and take action to make change happen when needed.³³ By integrating knowledgeable professionals in behavioral disciplines into the day-to-day care of perinatal patients with depression and anxiety disorders, misconceptions and stigmas can be dispelled and better therapeutic outcomes can be achieved. This often will include direct engagement of patients and their families, to the extent desired, in ongoing care decisions.³⁴

13. Perform an Interdisciplinary Review of Adverse Mental Health Outcomes

Interdisciplinary reviews are an important tool in promoting patient safety and engaging both families and patients in decision making.³⁵ An effort to debrief should be made after severe maternal mental health crises, to troubleshoot patients who are "lost to follow-up," and to review the protocol to make changes as necessary.

Although it is common practice to debrief an adverse event with the care team, it is critical to engage an interdisciplinary team when mental health is either the precipitating or a contributing factor. Although team members from behavioral health, pharmacy, and other departments may be readily available in a hospital, convening the interdisciplinary health care team could prove challenging in an office- or community-based setting. If a relationship with a specialty behavioral health practice has been established previously for the purposes of consultation or referral, it may be possible to further engage those professionals when debriefing after an adverse event. The key to the success of an interdisciplinary debrief is documenting actionable follow-up items, even if it is simply a commitment to learning more about risk factors identified during the debrief. The Council on Patient Safety in Women's Health Care bundle "Patient, Family, and Staff Support After a Severe Maternal Event" provides resources on conducting debriefs with the health care provider team. The team may choose to use existing tools such as the Council's Severe Maternal Morbidity Review Form as part of the debrief process. The council's Severe Maternal Morbidity Review Form as part of the debrief process.

14. Establish Local Standards for Recognition and Response to Measure Compliance, Understand Individual Performance, and Track Outcomes

Typically, standards for quality processes and outcomes are governed by nationally recognized groups such as the Joint Commission, the Leapfrog Group, the National Committee for Quality Assurance, or the National Quality Forum. Some states have instituted requirements for mental health screening for patients who receive coverage from a public source such as a state Medicaid program. Conferring with state-based public health representatives to identify office- or hospital-based requirements for screening and reporting may be important for ensuring compliance. Recommendations from the College and the U.S. Preventive Services Task Force^{8,10} also may be considered when developing local standards. To standardize screening, consider incorporating it into documentation at specified intervals in the electronic health record. Appropriately documenting screening results and diagnosis codes in the patient's record is an important tool in establishing standardized screening processes.³⁸

DISCUSSION

Perinatal mood and anxiety disorders, in their most severe forms, can be a tragic and preventable cause of maternal and infant mortality. Perinatal mood and anxiety disorders and their sequelae can be addressed by actively screening patients, having a plan in place for treatment or referral for those who screen positive, and actively engaging patients, their families, and supporters in recognizing symptoms and seeking help in a timely manner. Health care providers, community resources providers, patients, and their families must work together to remove the stigma that still surrounds mental health disorders. Although standardization is encouraged, the bundle elements have remained intentionally general so that health care providers in a variety of settings will be able to adapt them to best fit their circumstances. It is the intention of the Council that obstetric health care providers in all disciplines and practice settings will find this bundle useful in facilitating a consistent approach to recognition and treatment of perinatal mood and anxiety disorders.

References

- 1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5. Washington, DC: American Psychiatric Association; 2013.
- 2. Gaynes, BN., Gavin, N., Meltzer-Brody, S., Lohr, KN., Swinson, T., Gartlehner, G., et al. Evidence report/technology assessment no. 119. Rockville (MD): Agency for Healthcare Research and Quality; 2005. Perinatal depression: prevalence, screening accuracy, and screening outcomes. (Prepared by the RTI-University of North Carolina Evidence-based Practice Center, under contract no. 290-02-0016.) AHRQ publication no. 05- E006-2
- 3. Wisner KL, Sit DK, McShea MC, Rizzo DM, Zoretich RA, Hughes CL, et al. Onset timing, thoughts of self-harm, and diagnoses in postpartum women with screen-positive depression findings. JAMA Psychiatry. 2013; 70:490–8. [PubMed: 23487258]
- 4. Fairbrother N, Young AH, Antony MM, Tucker E. Depression and anxiety during the perinatal period. BMC Psychiatry. 2015; 15:206. [PubMed: 26303960]
- 5. Leight KL, Fitelson EM, Weston CA, Wisner KL. Childbirth and mental disorders. Int Rev Psychiatry. 2010; 22:453–71. [PubMed: 21047159]
- 6. Dunkel Schetter C, Tanner L. Anxiety, depression and stress in pregnancy: implications for mothers, children, research, and practice. Curr Opin Psychiatry. 2012; 25:141–8. [PubMed: 22262028]

7. Robertson E, Grace S, Wallington T, Stewart DE. Antenatal risk factors for postpartum depression: a synthesis of recent literature. Gen Hosp Psychiatry. 2004; 26:289–95. [PubMed: 15234824]

- 8. Screening for perinatal depression; Committee Opinion No. 630. American College of Obstetricians and Gynecologists. Obstet Gynecol. 2015; 125:1268–71. [PubMed: 25932866]
- American College of Nurse-Midwives. [Retrieved November 28, 2016] Position statement: depression in women. 2003. Available at: http://www.midwife.org/ACNM/files/ACNMLibraryData/ UPLOADFILENAME/000000000061/Depression%20in%20Women%20May%202013.pdf
- Siu AL, US Preventive Services Task Force (USPSTF). Bibbins-Domingo K, Grossman DC, Baumann LC, Davidson KW, et al. Screening for depression in adults: US Preventive Services Task Force recommendation statement. JAMA. 2016; 315:380–7. [PubMed: 26813211]
- 11. Rhodes AM, Segre LS. Perinatal depression: a review of US legislation and law. Arch Womens Ment Health. 2013; 16:259–70. [PubMed: 23740222]
- Merrill L, Mittal L, Nicoloro J, Caiozzo C, Maciejewski PK, Miller LJ. Screening for bipolar disorder during pregnancy. Arch Womens Ment Health. 2015; 18:579–83. [PubMed: 25968603]
- 13. Whitton A, Warner R, Appleby L. The pathway to care in postnatal depression: women's attitudes to post-natal depression and its treatment. Br J Gen Pract. 1996; 46:427–8. [PubMed: 8776916]
- 14. Myers, ER., Aubuchon-Endsley, N., Bastian, LA., Gierisch, JM., Kemper, AR., Swamy, GK., et al. Comparative effectiveness review 106. Rockville (MD): Agency for Healthcare Research and Quality; 2013. Efficacy and safety of screening for postpartum depression. (Prepared by the Duke Evidence-based Practice Center under contract no. 290-2007-10066-I.) AHRQ publication no. 13-EHC064-EF
- Clark CT, Sit DK, Driscoll K, Eng HK, Confer AL, Luther JF, et al. Does screening with the MDQ and EPDS improve identification of bipolar disorder in an obstetrical sample? Depress Anxiety. 2015; 32:518–26. [PubMed: 26059839]
- Kessler RC, Akiskal HS, Angst J, Guyer M, Hirschfeld RM, Merikangas KR, et al. Validity of the assessment of bipolar spectrum disorders in the WHO CIDI 3.0. J Affect Disord. 2006; 96:259–69. [PubMed: 16997383]
- 17. Frey BN, Simpson W, Wright L, Steiner M. Sensitivity and specificity of the Mood Disorder Questionnaire as a screening tool for bipolar disorder during pregnancy and the postpartum period. J Clin Psychiatry. 2012; 73:1456–61. [PubMed: 23146292]
- 18. American College of Obstetricians and Gynecologists. [Retrieved November 28, 2016] Depression and postpartum depression: resource overview. Available at: http://www.acog.org/Womens-Health/Depression-and-Postpartum-Depression
- 19. Farr SL, Denk CE, Dahms E, Dietz PM. Evaluating universal education and screening for postpartum depression using population-based data. J Womens Health. 2014; 23:657–63.
- Jeong HG, Lim JS, Lee MS, Kim SH, Jung IK, Joe SH. The association of psychosocial factors and obstetric history with depression in pregnant women: focus on the role of emotional support. Gen Hosp Psychiatry. 2013; 35:354–8. [PubMed: 23541804]
- Lydsdottir LB, Howard LM, Olafsdottir H, Thome M, Tyfingsson P, Sigurdsson JF. The mental health characteristics of pregnant women with depressive symptoms identified by the Edinburgh Postnatal Depression Scale. J Clin Psychiatry. 2014; 75:393–8. [PubMed: 24569071]
- 22. Logsdon MC, Foltz MP, Scheetz J, Myers JA. Self-efficacy and postpartum depression teaching behaviors of hospital-based perinatal nurses. J Perinat Educ. 2010; 19:10–6. [PubMed: 21886417]
- 23. Camp JM. Postpartum depression 101: teaching and supporting the family. Int J Childbirth Educ. 2013; 28:45–59.
- 24. Thombs BD, Arthurs E, Coronado-Montoya S, Roseman M, Delisle VC, Leavens A, et al. Depression screening and patient outcomes in pregnancy or postpartum: a systematic review. J Psychosomatic Res. 2014; 76:433–46.
- 25. Byatt N, Biebel K, Moore Simas TA, Sarvet B, Ravech M, Allison J, et al. Improving perinatal depression care: the Massachusetts Child Psychiatry Access Project for Moms. Gen Hosp Psychiatry. 2016; 40:12–7. [PubMed: 27079616]
- 26. Avalos LA, Raine-Bennett T, Chen H, Adams AS, Flanagan T. Improved perinatal depression screening, treatment, and outcomes with a universal obstetric program. Obstet Gynecol. 2016; 127:917–25. [PubMed: 27054938]

 Miller LJ, McGlynn A, Suberlak K, Rubin LH, Miller M, Pirec V. Now what? Effects of on-site assessment on treatment entry after perinatal depression screening. J Womens Health. 2012; 21:1046–52.

- O'Mahen H, Himle JA, Fedock G, Henshaw E, Flynn H. A pilot randomized controlled trial of cognitive behavioral therapy for perinatal depression adapted for women with low incomes. Depress Anxiety. 2013; 30:679–87. [PubMed: 23319454]
- Dimidjian S, Goodman SH, Felder JN, Gallop R, Brown AP, Beck A. Staying well during pregnancy and the postpartum: a pilot randomized trial of mindfulness-based cognitive therapy for the prevention of depressive relapse/recurrence. J Consult Clin Psychol. 2016; 84:134

 –45.
 [PubMed: 26654212]
- 30. Lindahl V, Pearson JL, Colpe L. Prevalence of suicidality during pregnancy and the postpartum. Arch Womens Ment Health. 2005; 2:77–87.
- 31. Fuhr DC, Calvert C, Ronsmans C, Chandra PS, Sikander S, De Silva MJ, et al. Contribution of suicide and injuries to pregnancy-related mortality in low-income and middle-income countries: a systematic review and meta-analysis. Lancet Psychiatry. 2014; 1:213–25. [PubMed: 26360733]
- 32. Khalifeh H, Hunt I, Appleby L, Howard L. Suicide in perinatal and non-perinatal women in contact with psychiatric services: 15 year findings from a UK national inquiry. Lancet Psychiatry. 2016; 3:233–42. [PubMed: 26781366]
- 33. Institute for Healthcare Improvement. [Retrieved April 10, 2016] Develop a culture of safety. Available at: http://www.ihi.org/resources/Pages/Changes/DevelopaCultureofSafety.aspx
- 34. Carman, KL., Dardess, P., Maurer, ME., Workman, T., Ganachari, D., Pathak-Sen, E. A roadmap for patient and family engagement in healthcare: practice and research: practical strategies for advancing engagement in healthcare—starting today. Palo Alto (CA): Gordon and Betty Moore Foundation; 2014. Available at: http://patientfamilyengagement.org/ [Retrieved April 10, 2016]
- 35. Institute for Healthcare Improvement. [Retrieved November 28, 2016] How-to guide: multidisciplinary rounds. 2015. Available at: http://www.ihi.org/resources/pages/tools/howtoguidemultidisciplinaryrounds.aspx
- 36. Council on Patient Safety in Women's Healthcare. [Retrieved December 28, 2016] Support after a severe maternal event (+AIM). 2015. Available at: http://safehealthcareforeverywoman.org/patient-safety-bundles/support-after-a-severe-maternal-event-supported-by-aim/
- 37. Council on Patient Safety in Women's Healthcare. [Retrieved December 28, 2016] Severe maternal morbidity review (+AIM). 2015. Available at: http://safehealthcareforeverywoman.org/patient-safety-tools/severe-maternal-morbidity-review/
- 38. American College of Obstetricians and Gynecologists. [Retrieved November 28, 2016] Coding for perinatal depression. 2015. Available at: http://www.acog.org/-/media/Departments/Coding/Perinatal-Depression-rev-2015.pdf

Box 1

Maternal Mental Health: Perinatal Depression and Anxiety Patient Safety Bundle: Council on Patient Safety in Women's Health Care

Readiness (Every Clinical Care Setting)

- 1 Identify mental health screening tools to be made available in every clinical setting (outpatient obstetric clinics and inpatient facilities)
- 2 Establish a response protocol and identify screening tools for use based on local resources
- 3 Educate clinicians and office staff on use of the identified screening tools and response protocol
- 4 Identify an individual who is responsible for driving adoption of the identified screening tools and response protocol

Recognition and Prevention (Every Woman)

- 5 Obtain individual and family mental health history (including past and current medications) at intake, with review and updates as needed
- 6 Conduct validated mental health screening during appropriately timed patient encounters, to include both during pregnancy and in the postpartum period
- 7 Provide appropriately timed perinatal depression and anxiety awareness education to women and family members or other support persons

Response (Every Case)

- 8 Initiate a stage-based response protocol for a positive mental health screening result
- 9 Activate an emergency referral protocol for women with suicidal or homicidal ideation or psychosis
- 10 Provide appropriate and timely support for women, as well as family members and staff, as needed
- 11Obtain follow-up from mental health care providers on women referred for treatment (this should include release of information forms)

Reporting and Systems Learning (Every Clinical Care Setting)

- 12Establish a nonjudgmental culture of safety through multidisciplinary mental health rounds
- 13Perform a multidisciplinary review of adverse mental health outcomes
- 14Establish local standards for recognition and response to measure compliance, understand individual performance, and track outcomes

Modified from Council on Patient Safety in Women's Health Care. Available at: http://www.safehealthcareforeverywoman.org/. Retrieved November 28, 2016.

Table 1

Depression Screening Tools

Screening Tool	No. of Items	Time to Complete (min)	Sensitivity and Specificity	Spanish Available
Edinburgh Postnatal Depression Scale	10	Less than 5	Sensitivity 59–100%	Yes
			Specificity 49-100%	
Postpartum Depression Screening Scale	35	5–10	Sensitivity 91–94%	Yes
			Specificity 72-98%	
Patient Health Questionnaire 9	9	Less than 5	Sensitivity 75%	Yes
			Specificity 90%	
Beck Depression Inventory	21	5–10	Sensitivity 47.6-82%	Yes
			Specificity 85.9-89%	
Beck Depression Inventory-II	21	5–10	Sensitivity 56-57%	Yes
			Specificity 97-100%	
Center for Epidemiologic Studies Depression Scale	20	5–10	Sensitivity 60%	Yes
			Specificity 92%	
Zung Self-rating Depression Scale	20	5–10	Sensitivity 45-89%	No
			Specificity 77-88%	

Reprinted with permission from Screening for perinatal depression. Committee Opinion No. 630. American College of Obstetricians and Gynecologists. Obstet Gynecol 2015;125:1268–71.

Useful Resources

Table 2

Resource	Description	Available At
Patient and provider educational resources		
Depression During and After Pregnancy: A Resource for Women, Their Families, and Friends	Provides a comprehensive booklet designed for women with perinatal depression and their families. Provides answers to common patient questions and offers linkages to additional supportive resources	https://mchb.hrsa.gov/sites/defaull/files/mchb/MaternalChildHealthTopics/maternal-womens-health/Depression_During_and_After_Pregnancy_ENGLISH.pdf
Depression in Mothers: More Than the Blues: A Toolkit for Family Service Providers	Designed for community-based health care providers, the toolkit delivers background information about depression and offers ideas that health care providers can use daily when helping mothers who may be suffering from depression and their families	http://store.samhsa.gov/shin/content/SMA14-4878.pdf
Massachusetts Child Psychiatry Access Project for Moms (MCPAP for Moms) Toolkit	Offers resources to assist front-line perinada care providers in the prevention, identification, and treatment of depression and other mental health concerns in pregnant and postpartum women	https://www.mcpapformoms.org/Toolkitsapx
Massachusetts General Hospital Center for Women's Mental Health	Offers a range of current information, including discussion of new research findings in women's mental health and how such investigations inform day-to-day clinical practice	https://womensmentalhealth.org
Moms' Mental Health Matters	Offers education to consumers and health	https://www.nichd.nih.gov/ncmhep/MIMHM/Pagess/index.aspx

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Resource	Description	Available At
	care providers about who is at risk for depression and anxiety during and arter pregnancy, the signs of these problems, and how to get help	
MotherToBaby	Provides expert information about medication and depression risks during pregnancy and lactation. Available to mothers, healthcare professionals, and the general public	http://mothertobaby.org/about-us/
Postpartum Support International	Provides many resources to help families, health care providers, and communities learn about the emotional and mental health of families. Offers a toll-free Warmline that anyone can call to get basic information, support, and linkage with local resources	http://www.postpartum.net/
Provider care coordination resources		
Collaboration in Practice: Implementing Team-Based Care	Identifies and discusses six principles as core components guiding team-based care	http://www.acog.org/Resources-And-Publications/Task-Force-and-Work-Group-Reports/Collaboration-in-Practice-Implementing-Team-Based-Care
Patient, Family, and Staff Support After a Severe Maternal Event Patient Safety Bundle	Provides resources on conducting debriefs with the provider team after a severe maternal event	http://safehealthcareforeverywoman.org/patient-safety-bundles/support-after-a-severe-maternal-event-supported-by-aim/

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