

College of Obstetricians & Gynaecologists Singapore (COGS)

# **SINGAPORE PERINATAL MENTAL HEALTH GUIDELINES ON DEPRESSION AND ANXIETY**

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## **INTRODUCTION**

The lifetime prevalence of major depression and generalized anxiety disorder has been found to be 7.7 - 9.2% and 1.9 - 2.2% amongst women of childbearing age (Subramaniam et al 2020, Singapore Mental Health Study), whilst antepartum depressive states (both major and minor) occur in 12.2% and postpartum depressive states in 6.8% (Chee et al 2006). The neurodevelopmental impact of depression and anxiety on the growing fetus has been clearly evidenced in the Singapore population (GUSTO birth cohort study), with changes in microstructure, functional connectivity as well as epigenetic footprint. The adverse impact extends into the postpartum period, during which maternal depression and anxiety have been found to be associated with infant negative temperament, reduced maternal sensitivity, child behavioural problems, and decreased school readiness ([www.gusto.sg](http://www.gusto.sg)). Given that preconception mental health has been found to be closely related to antenatal mental health, which in turn predicts postnatal mental health, there is a crucial need for early identification and intervention to ensure the best health outcomes for women and children.

These guidelines have been developed to provide guidance on addressing depression and anxiety, during the preconception, antepartum and postpartum phases. The target audience are: General Practitioners, Family Physicians, General Practitioners, Obstetricians & Gynaecologists, Paediatricians, Neonatologists, Nurses, Midwives, Social Workers and Counsellors, Psychiatrists, and other mental health professionals.

We aim to make this document readable not just for healthcare professionals but also to the wider public and non-healthcare lay community, as awareness and public education is a key factor to addressing maternal mental health at the population level. This guideline does not include the severe mental disorders such as schizophrenic and bipolar disorders, which will be covered in subsequent editions.

## **ADDRESSING PRECONCEPTION DEPRESSION AND ANXIETY**

### **Advice on pregnancy planning**

- i) Consider pregnancy planning or contraception for women and girls of childbearing potential with a past or current depressive or anxiety disorder as they are particularly vulnerable to the stress of an unplanned pregnancy.
- ii) Consider any previous history of depression or anxiety, as this is a well-established risk factor for antenatal depression or anxiety. (Biaggi 2016)
- iii) Plan well for pregnancy, as pregnancy unintendedness is a risk factor associated with perinatal depression. (Abajobir et al, 2016)

### **Preconception counselling on impact of maternal mental illness and treatment**

- i) Provide information to women of childbearing potential with a severe depressive or anxiety disorder regarding how their mental health condition and its treatment might affect them or their baby if they become pregnant. (McCloskey et al 2020)
- ii) Tailor this information according to their individual needs, and illness pattern.
- iii) With information, women can make an informed decision about family planning, and make necessary arrangements to prepare for pregnancy. (McCloskey et al 2020)

### **Lifestyle adjustments to optimize preconception mental health**

- i) Provide guidance to women of childbearing potential with pre-existing depressive or anxiety disorder to help them make lifestyle adjustments to optimize their mental wellbeing and general health. (van Lee et al 2022)
- ii) Recommendations include improving nutrition with whole foods diet, weight management, smoking cessation, alcohol abstinence and folate supplementation to promote maternal mental wellbeing, and fetal development. Physical activity, exercise and mindfulness practice can also help reduce symptoms of depression or anxiety and promote wellbeing. (Dennis et al 2022)
- iii) Tailor recommendations on lifestyle adjustments to pace individual needs.

### **Medication use in consideration of childbearing**

- i) Consider carefully safe choices of psychotropic medication or mood stabilizer, particularly valproate, for women or girls of childbearing potential who might require long-term treatment for their mood disorder. (NICE 2014)
- ii) Restrict the use of valproate to when there are no effective or tolerated alternatives, and when pregnancy prevention plan is adequate, as valproate is teratogenic. (Shakespeare & Sisodiya 2020)

### **Holistic approach to preconception mental health**

- i) Consider psychological therapies, and address social stressors, to optimize the control of pre-existing depressive or anxiety disorder, as this can help to minimize the dose of antidepressant medication needed; any cessation should be discussed in preconception care planning.
- ii) Aim to achieve minimum effective dose of psychotropic medication to maintain wellness during conception. Maternal mental health state tends to remain stable from preconception to pregnancy. (Kee et al 2021)
- iii) Addressing any conflicts to ameliorate the risk of depression perinatally as couple relationship strength is particularly important. (Westdhal et al 2012)

## **ADDRESSING ANTENATAL DEPRESSION AND ANXIETY**

### **Screening for antenatal depression/anxiety**

- i) Early screening for antenatal depression during obstetric visits provides an ideal opportunity for preventative care and treatment before delivery. (Marcus et al 2003)
- ii) A short screen such as the Patient Health Questionnaire PHQ-2 may be used:  
“Over the last 2 weeks, how often have you been bothered by :
  - Little interest or pleasure in doing things?
  - Feeling down, depressed or hopeless?”Women who experience either/both symptoms for most days, can be considered screen-positive, and will benefit from support or referral for further assessment. (see Appendix 1 for full version of PHQ-2)
- iii) Women may also be screened using a validated questionnaire such as the Edinburgh Postnatal Depression Scale EPDS (Appendix 2), with follow-up actions according to clear referral and management protocols.
- iv) Consider that antenatal depression is more common than postnatal depression (Chee et al, 2005), and that antenatal depression and anxiety are significant risk factors for postnatal depression. (Norhayati et al 2015)
- v) Consider using Generalized Anxiety Disorder 2-item (GAD-2) with further assessment to follow, but take note that there is currently no robust evidence for a reliable screening tool for antenatal anxiety. (Appendix 3)

### **Assessment of antenatal depression/anxiety**

- i) Clinical diagnoses should be made based on criteria listed in DSM-5 (Appendix 4) or ICD-10.
- ii) Consider holistic aspects of care such as: other psychiatric co-morbidities (such as learning disability, alcohol and substance use disorders), medical and obstetric health, quality of partner and other familial relationships, care of older children, financial and occupational stressors, lifestyle practices, bonding with unborn child
- iii) Consider assessing for risk of harm to self and others (including fetus).

### **Medication use in antenatal depression/ anxiety**

- i) Antidepressants are recommended for women with moderate to severe illness, or at risk of clinically significant relapse, with careful consideration of potential benefits and risks of antenatal use of antidepressants. (NICE 2014)
- ii) Factors to consider include: symptom severity, risk of relapse/ worsening, impact of illness vs. medication on mother and fetus, patient’s response to previous treatment, stage of pregnancy, patient preference. (Yonkers et al 2009)

- iii) Clinicians should provide information regarding the risk of septal defects with selective serotonin reuptake inhibitors, such as Paroxetine (Pedersen et al, 2009), and discuss risk-benefit considerations. (Molenaar et al, 2018)
- iv) Good practices for prescribing safely include: lowest effective doses, divided over the day if necessary, avoiding first-trimester use if possible, frequent and regular reviews. (NICE 2014)
- v) Benzodiazepines, commonly used for anxiety, should be avoided in pregnancy as there is an increased risk of use of ventilatory support for the newborn. (Yonkers et al 2017)

#### **Holistic approach to care for patients with antenatal depression/ anxiety**

- i) Care for women should be coordinated amongst relevant healthcare professionals, which may include general and family medicine practitioners, obstetricians and gynecologists, paediatricians, psychiatrists, nurses, midwives, social workers and counsellors (Yonkers et al 2009).
- ii) Having relevant mental health information enables women (and their partners/ family, with their agreement) to make informed, collaborative decisions about their care.
- iii) Information should include potential benefits and side effects of treatment, consequences of untreated illness, which may include poor maternal health, lower quality of life, difficulties with social relationships, poor mother-infant bonding, and poor overall development of the infant. (NICE 2014)
- iv) Lifestyle behavioural interventions targeting diet, sleep, physical activity, smoking and having social support helps to prevent and reduce antenatal depressive symptoms (van Lee et al 2020)
- v) Non-pharmacological interventions, such as supportive therapy, psychology therapy and group therapy, may be beneficial, in addition to pharmacological interventions. (Bowen et al 2014)

#### **Monitoring and supporting women receiving care for antenatal depression/anxiety**

- i) Regular monitoring of symptoms and response to treatment during the antenatal period is recommended (NICE 2014).
- ii) Consider referral to perinatal psychiatric services at KKH, NUH, IMH for women with severe depression or anxiety, or those not responding to treatment.
- iii) Having adequate social and emotional support from husbands/ partners and family in the antenatal period can help reduce depressive and anxiety symptoms (Schetter 2011).

### **ADDRESSING POSTNATAL DEPRESSION AND ANXIETY**

#### **Screening for postnatal depression and anxiety**

- i) Early screening for postnatal depression during obstetric visits provide an ideal opportunity for preventative care and treatment. (ACOG Committee Opinion 2018; Chen 2011). Well child visits to the paediatrician or primary health practitioner are also an opportune time to screen the mother for postnatal depression (Earl 2010).
- ii) Screening is particularly important for women with risk factors of postnatal depression and anxiety, which include antenatal depression/ anxiety, recent stressful life events and inadequate social support (Beck 2001)
- iii) A short screen such as the Patient Health Questionnaire PHQ-2 may be used:
 

“Over the last 2 weeks, how often have you been bothered by:

  - Little interest or pleasure in doing things?
  - Feeling down, depressed or hopeless?”

Women who experience either/both symptoms for most days, can be considered screen-positive, and will benefit from support or referral for further assessment. (see Appendix 1 for full version of PHQ-2)
- iv) Women may also be screened using a validated questionnaire such as the Edinburgh Postnatal Depression Scale EPDS (Appendix 2), with follow-up actions according to clear referral and management protocols.
- v) Consider using Generalized Anxiety Disorder 2-item (GAD-2) with further assessment to follow, but take note that there is currently no robust evidence for a reliable screening tool for postnatal anxiety. (Appendix 3)

#### **Assessment of postnatal depression and anxiety**

- i) Clinical diagnoses should be made based on criteria listed in DSM-5 (Appendix 4) or ICD-10
- ii) Consider holistic aspects of care such as: other psychiatric co-morbidities (such as learning disability, alcohol and substance use disorders), medical and obstetric health, quality of partner and other familial relationships, care of older children, financial and occupational stressors, lifestyle practices, bonding with baby.
- iii) Consider assessing for risk of harm to self and others (including baby).

### **Medication use in postnatal depression/ anxiety**

- i) Provide counselling on the risk and benefits of starting pharmacological treatment, including potential consequences of untreated depression/ anxiety and adverse side effects of antidepressants. (Brown et al 2021)
- ii) Provide support for women in their decision about breastfeeding and be aware that antidepressant use is not an absolute contraindication to breastfeeding. (Brown et al 2021)

### **Holistic approach to care for patients with postnatal depression/ anxiety**

- i) Care for women should be coordinated amongst relevant healthcare professionals, which may include general and family medicine practitioners, obstetricians and gynecologists, paediatricians, psychiatrists, nurses, midwives, social workers and counsellors.
- ii) Having relevant mental health information enables women (and their partners/ family, with their agreement) to make informed, collaborative decisions about their care (Donker et al 2009)
- iii) Information should include potential benefits and side effects of treatment, consequences of untreated illness, which may include poor maternal health, lower quality of life, difficulties with social relationships, poor mother-infant bonding, and poor overall development of the infant. (Sioman et al 2019)
- iv) Lifestyle advice such as those related to healthy eating, physical activity and sleep hygiene could be provided to women, in consideration of the adjustment of these activities during the postnatal period. (Wilson et al 2017)
- v) Supportive counselling or structured individual psychological intervention, such as cognitive behavioural therapy or interpersonal psychotherapy, may improve depressive symptoms. (NICE 2015; Wilson et al 2017)
- vi) Consider interventions to improve mother-baby bonding if there are concerns with their relationship as women with depressive symptoms may experience challenges with bonding. (NICE 2015)

### **Monitoring and supporting women receiving care for postnatal depression/anxiety**

- i) Regular monitoring of symptoms and response to treatment during the postnatal period is recommended.
- ii) Consider referral to perinatal psychiatric services at KKH, NUH, or IMH for women with severe depression or anxiety, or those not responding to treatment.
- iii) Having adequate social and emotional support from husbands/ partners and family in the postnatal period can help reduce depressive and anxiety symptoms. (Machado et al 2020)

## **SPECIAL CONSIDERATIONS**

- Women who have experienced a severe maternal event - such as hemorrhage requiring massive transfusion and/or hysterectomy, severe hypertensive crises, eclamptic seizures, sepsis, thrombotic events and cardiovascular failure, miscarriage, stillbirth or intrauterine death – are particularly at risk of depression and anxiety, as well as post-traumatic stress disorder (Furuta et al 2014). Care and support should be provided for the patient, as well as the healthcare providers, who might experience emotional effects of severe adverse events (Morton et al 2021).
- Women with special needs (such as neurodevelopmental disorders or intellectual disability) will benefit from care delivery that is tailored to address their needs (D'Angelo et al 2020). Likewise, pregnant adolescents can be at higher risk of perinatal depression (Siegel & Brandon 2014). Additional effort to provide information and support for these vulnerable mothers can mitigate the development of depression and anxiety in their perinatal experience.
- Infants of mothers who are treated with antidepressant medications, such as SSRIs, through-out labour (without weaning off towards term) may have early onset respiratory distress due to persistent pulmonary hypertension, hypoglycaemia and drug withdrawal symptoms such as excessive crying, irritability, feeding and sleep disturbance during the first four weeks of life. Hence regular monitoring and interventions for such infants are recommended (Hudak & Tan, 2012).
- Infant neurodevelopment is related to the quality of caregiving. Maternal mental health can influence maternal attunement and sensitivity to infant needs (Rifkin-Gabroi et al. 2015), and maternal mind-mindedness (Bigelow et al 2018). Mothers are encouraged to spend quality time attending to and caring for their infants, by following baby's cues and keeping mindful of baby's needs. Research shows that mothers staying present, watching and wondering about their infants can improve maternal reflective capacity (Bakermans-kranenburg et al 2003). Red flags for dysfunction in mother-infant dyads include reduced maternal attunement, reduced child responsiveness to mother and restricted growth and development (Tsang et al 2019).

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This guideline summary, endorsed by College of Obstetricians & Gynaecologists Singapore (COGS), Perinatal Society of Singapore; The College of Family Physicians Singapore (CFPS); College of Psychiatrists; Singapore Psychiatric Association; Health Promotion Board, Singapore; and Singapore Medical Association acts as an educational aid and reference for healthcare professionals practicing in Singapore.

The guideline summary does not define a standard of care, nor is it intended to dictate an exclusive course of management. It presents recognized clinical methods and techniques for consideration by practitioners for incorporation into their practice. It is acknowledged that management may vary and must always be responsive to the need of individual patients, availability of resources, and limitations unique to the institution or type of practice. Launched on 17 February 2023.

# APPENDIX 1

## PATIENT HEALTH QUESTIONNAIRE 2-item (PHQ-2)

*(Kroenke K, Spitzer RL, Williams JOB. The Patient Health Questionnaire-2: Validity of a Two-item Depression Screener. Medical Care, 2003;41:1284-92)*

Over the last 2 weeks, how often have you been bothered by the following problems?

1. Little interest or pleasure in doing thing

Not at all	(0)
Several days	(1)
More than half the days	(2)
Nearly every day	(3)
  
2. Feeling down, depressed or hopeless

Not at all	(0)
Several days	(1)
More than half the days	(2)
Nearly every day	(3)

Interpretation :

- The authors have identified a score of 3 to be the optimal cut-off when using PHQ-2 to screen for major depression (or clinical depression).
- Patients who screen positive should be further evaluated and attended to accordingly.



## APPENDIX 2

### Edinburgh Postnatal Depression Scale (EPDS)

*(Cox JL, Holden JM, Sagovsky R, British Journal of Psychiatry, June 1987, vol 150)*

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

Screening is considered positive if one or more of the following is met:

- Total score 15 or more for antenatal depression
- Total score 13 or more for postnatal depression
- Item score of 1 or more on item 10

## APPENDIX 3

### GENERALIZED ANXIETY DISORDER 2-item (GAD-2)

*(Kroenke K, Spitzer RL, Williams JB, Mohana PO, Lowe B. Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. Ann Intern Med. 2006;146:317-325)*

The brief General Anxiety Disorder 2-item (GAD-2) may be used to screen for symptoms of anxiety:

1. Over the last 2 weeks, how often have you been bothered by feeling nervous, anxious or on edge?

Not at all	(0)
Several days	(1)
More than half the days	(2)
Nearly every day	(3)

2. Over the last 2 weeks, how often have you been bothered by not being able to stop or control worrying?

Not at all	(0)
Several days	(1)
More than half the days	(2)
Nearly every day	(3)

Interpretation:

A score of 3 or more has been suggested to be suggestive of generalized anxiety, and further assessment is warranted.

\*Please note that GAD-2 has not been validated in Singapore, and its psychometric properties as a screening tool for perinatal anxiety has not been strong (Fairbrother et al 2019; Nath et al 2018). As such, the use of GAD-2 for public health screening is not yet clear, and a positive screen should be followed by assessment if clinically indicated.

## APPENDIX 4

### DSM V Criteria for Major Depression -peripartum onset

*(American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (Fifth ed.). Arlington, VA: American Psychiatric Publishing. pp. 5–25. ISBN 978-0-89042-555-8. Arlington, Virginia: American Psychiatric Publishing; 2013)*

Essential or cardinal symptoms:-

- 1) either depressed mood and/or
- 2) loss of interest or pleasure in nearly all activities

with any of these additional symptoms for a total of 5 symptoms

- 3) changes in appetite or weight,
- 4) sleep disturbance (insomnia or hypersomnia)
- 5) decreased energy or feeling fatigued
- 6) psychomotor agitation or retardation – feeling restless or lethargic
- 7) difficulty thinking, concentrating or making decisions
- 8) feelings or worthless or guilt, excessive self blame
- 9) recurrent thoughts of death or suicidal ideation, plans or attempts.

Duration: The symptoms must persist for most of the day nearly every day for at least 2 consecutive weeks.

Onset for peripartum episode: during pregnancy and within 4 weeks after delivery

The episode must be accompanied by clinically significant distress or impairment in social, occupational, or other important areas of functioning.

# SUMMARY STATEMENTS OF COLLEGE OF OBSTETRICIANS & GYNAECOLOGISTS SINGAPORE (COGS) SINGAPORE PERINATAL MENTAL HEALTH GUIDELINES

\*COGS-IPRAMHO Perinatal Mental Health Study Group. 17 February 2023

## 1. Increase Awareness and Provide Advice of Preconception Mental Health

### A. Provide advice on pregnancy planning

- i) Consider pregnancy planning or contraception for women and girls of childbearing potential with a past or current depressive or anxiety disorder as they are particularly vulnerable to the stress of an unplanned pregnancy.
- ii) Consider any previous history of depression or anxiety, as this is a well-established risk factor for antenatal depression or anxiety.
- iii) Plan well for pregnancy, as pregnancy unintendedness is a risk factor associated with perinatal depression.

### B. Have preconception counselling on impact of maternal mental illness and treatment

- i) Provide information to women of childbearing potential with a severe depressive or anxiety disorder regarding how their mental health condition and its treatment might affect them or their baby if they become pregnant.
- ii) Tailor this information according to their individual needs, and illness pattern.
- iii) With information, women can make an informed decision about family planning, and make necessary arrangements to prepare for pregnancy.

## 2. Optimise Preconception Mental Health

### A. Make lifestyle adjustments to optimise preconception mental health

- i) Provide guidance to women of childbearing potential with pre-existing depressive or anxiety disorder to help them make lifestyle adjustments to optimise their mental wellbeing and general health.
- ii) Recommendations include improving nutrition with whole foods diet, weight management, smoking cessation, alcohol abstinence and folate supplementation to promote maternal mental wellbeing, and fetal development. Physical activity, exercise and mindfulness practice can also help reduce symptoms of depression or anxiety and promote wellbeing.
- iii) Tailor recommendations on lifestyle adjustments to pace individual needs.

### B. Evaluate medication use in consideration of childbearing

- i) Consider carefully safe choices of psychotropic medication or mood stabiliser, particularly valproate, for women or girls of childbearing potential who might require long-term treatment for their mood disorder.
- ii) Restrict the use of valproate to when there are no effective or tolerated alternatives, and when pregnancy prevention plan is adequate, as valproate is teratogenic.

### C. Have a holistic approach to preconception mental health

- i) Consider psychological therapies, and address social stressors, to optimise the control of pre-existing depressive or anxiety disorder, as this can help to minimize the dose of antidepressant medication needed; any cessation should be discussed in preconception care planning.
- ii) Aim to achieve minimum effective dose of psychotropic medication to maintain wellness during conception. Maternal mental health state tends to remain stable from preconception to pregnancy.
- iii) Addressing any conflicts to ameliorate the risk of depression perinatally as couple relationship strength is particularly important.

## 3. Have Screening and Assessment for Antenatal Depression/ Anxiety

### A. Provide screening for antenatal depression/anxiety

- i) Early screening for antenatal depression during obstetric visits provides an ideal opportunity for preventative care and treatment before delivery.

- ii) A short screen such as the Patient Health Questionnaire PHQ-2 may be used:  
 "Over the last 2 weeks, how often have you been bothered by:
  - Little interest or pleasure in doing things?
  - Feeling down, depressed or hopeless?"
 Women who experience either/both symptoms for most days, can be considered screen-positive, and will benefit from support or referral for further assessment.
- iii) Women may also be screened using a validated questionnaire such as the Edinburgh Postnatal Depression Scale EPDS, with follow-up actions according to clear referral and management protocols.
- iv) As antenatal depression and anxiety are significant risk factors for postnatal depression, consider using Generalized Anxiety Disorder 2-item (GAD-2) with further assessment to follow, but take note that there is currently no robust evidence for a reliable screening tool for antenatal anxiety.

#### **B. Have assessment of antenatal depression/anxiety**

- i) Clinical diagnoses should be made based on criteria listed in DSM-5 or ICD-10.
- ii) Consider holistic aspects of care such as: other psychiatric co-morbidities (such as learning disability, alcohol and substance use disorders), medical and obstetric health, quality of partner and other familial relationships, care of older children, financial and occupational stressors, lifestyle practices, bonding with unborn child
- iii) Consider assessing for risk of harm to self and others (including fetus).

#### **4. Optimise care, treatment & support for antenatal depression/ anxiety**

##### **A. Counsel on medication use in antenatal depression/ anxiety**

- i) Antidepressants are recommended for women with moderate to severe illness, or at risk of clinically significant relapse, with careful consideration of potential benefits and risks of antenatal use of antidepressants.
- ii) Factors to consider include: symptom severity, risk of relapse/ worsening, impact of illness vs. medication on mother and fetus, patient's response to previous treatment, stage of pregnancy, patient preference.
- iii) Clinicians should provide information regarding the risk of septal defects with selective serotonin reuptake inhibitors, such as Paroxetine, and discuss risk-benefit considerations.
- iv) Good practices for prescribing safely include: lowest effective doses, divided over the day if necessary, avoiding first-trimester use if possible, frequent and regular reviews.
- v) Benzodiazepines, commonly used for anxiety, should be avoided in pregnancy as there is an increased risk of use of ventilatory support for the newborn.

##### **B. Provide holistic approach to care for patients with antenatal depression/ anxiety**

- i) Care for women should be coordinated amongst relevant healthcare professionals, which may include general and family medicine practitioners, obstetricians and gynaecologists, paediatricians, neonatologists, psychiatrists, nurses, midwives, social workers, and counsellors.
- ii) Having relevant mental health information enables women (and their partners/ family, with their agreement) to make informed, collaborative decisions about their care.
- iii) Information should include potential benefits and side effects of treatment, consequences of untreated illness, which may include poor maternal health, lower quality of life, difficulties with social relationships, poor mother-infant bonding, and poor overall development of the infant.
- iv) Lifestyle behavioural interventions targeting diet, sleep, physical activity, smoking and having social support helps to prevent and reduce antenatal depressive symptoms.
- v) Non-pharmacological interventions, such as supportive therapy, psychology therapy and group therapy, may be beneficial, in addition to pharmacological interventions.

##### **C. Provide monitoring and support for women receiving care for antenatal depression/anxiety**

- i) Regular monitoring of symptoms and response to treatment during the antenatal period is recommended.
- ii) Consider referral to perinatal psychiatric services at KKH, NUH, IMH for women with severe depression or anxiety, or those not responding to treatment.
- iii) Having adequate social and emotional support from husbands/ partners and family in the antenatal period can help reduce depressive and anxiety symptoms.

## **5. Have Screening and assessment for postnatal depression/ anxiety**

### **A. Provide screening for postnatal depression and anxiety**

- i) Early screening for postnatal depression during obstetric visits provide an ideal opportunity for preventative care and treatment. Well child visits to the paediatrician or primary health practitioner are also an opportune time to screen the mother for postnatal depression.
- ii) Screening is particularly important for women with risk factors of postnatal depression and anxiety, which include antenatal depression/ anxiety, recent stressful life events and inadequate social support.
- iii) A short screen such as the Patient Health Questionnaire PHQ-2 may be used:  
"Over the last 2 weeks, how often have you been bothered by:
  - Little interest or pleasure in doing things?
  - Feeling down, depressed or hopeless?"Women who experience either/both symptoms for most days, can be considered screen-positive, and will benefit from support or referral for further assessment.
- iv) Women may also be screened using a validated questionnaire such as the Edinburgh Postnatal Depression Scale EPDS, with follow-up actions according to clear referral and management protocols.
- v) Consider using Generalized Anxiety Disorder 2-item (GAD-2) with further assessment to follow, but take note that there is currently no robust evidence for a reliable screening tool for postnatal anxiety.

### **B. Have assessment of postnatal depression and anxiety:**

- i) Clinical diagnoses should be made based on criteria listed in DSM-5 or ICD-10
- ii) Consider holistic aspects of care such as: other psychiatric co-morbidities (such as learning disability, alcohol and substance use disorders), medical and obstetric health, quality of partner and other familial relationships, care of older children, financial and occupational stressors, lifestyle practices, bonding with baby.
- iii) Consider assessing for risk of harm to self and others (including baby).

## **6. Optimise care, treatment and support for postnatal depression/ anxiety**

### **A. Evaluate medication use in postnatal depression/ anxiety**

- i) Provide counselling on the risk and benefits of starting pharmacological treatment, including potential consequences of untreated depression/ anxiety and adverse side effects of antidepressants.
- ii) Provide support for women in their decision about breastfeeding and be aware that antidepressant use is not an absolute contraindication to breastfeeding.

### **B. Have a holistic approach towards care for patients with postnatal depression/ anxiety**

- i) Care for women should be coordinated amongst relevant healthcare professionals, which may include general and family medicine practitioners, obstetricians and gynaecologists, paediatricians, neonatologists, psychiatrists, nurses, midwives, social workers, and counsellors.
- ii) Having relevant mental health information enables women (and their partners/ family, with their agreement) to make informed, collaborative decisions about their care.
- iii) Information should include potential benefits and side effects of treatment, consequences of untreated illness, which may include poor maternal health, lower quality of life, difficulties with social relationships, poor mother-infant bonding, and poor overall development of the infant.
- iv) Lifestyle advice such as those related to healthy eating, physical activity and sleep hygiene could be provided to women, in consideration of the adjustment of these activities during the postnatal period.
- v) Supportive counselling or structured individual psychological intervention, such as cognitive behavioural therapy or interpersonal psychotherapy, may improve depressive symptoms.
- vi) Consider interventions to improve mother-baby bonding if there are concerns with their relationship as women with depressive symptoms may experience challenges with bonding.

### **C. Provide monitoring and support for women receiving care for postnatal depression/ anxiety**

- i) Regular monitoring of symptoms and response to treatment during the postnatal period is recommended.
- ii) Consider referral to perinatal psychiatric services at KKH, NUH, or IMH for women with severe depression or anxiety, or those not responding to treatment.

- iii) Having adequate social and emotional support from husbands/ partners and family in the postnatal period can help reduce depressive and anxiety symptoms.

**7. Provide mental health support in severe maternal events and those with mental health needs**

Women who have experienced a severe maternal event - such as haemorrhage requiring massive transfusion and/ or hysterectomy, severe hypertensive crises, eclamptic seizures, sepsis, thrombotic events and cardiovascular failure, miscarriage, stillbirth or intrauterine death – are particularly at risk of depression and anxiety, as well as post-traumatic stress disorder. Care and support should be provided for the patient, as well as the healthcare providers, who might experience emotional effects of severe adverse events.

**8. Tailor perinatal mental healthcare for adolescents and women with special needs**

Women with special needs (such as neurodevelopmental disorders or intellectual disability) will benefit from care delivery that is tailored to address their needs. Likewise, pregnant adolescents can be at higher risk of perinatal depression. Additional effort to provide information and support for these vulnerable mothers can mitigate the development of depression and anxiety in their perinatal experience.

**9. Promote higher caregiving quality for perinatal and infant mental health needs**

Infant neurodevelopment is related to the quality of caregiving. Maternal mental health can influence maternal attunement and sensitivity to infant needs, and maternal mind-mindedness. Mothers are encouraged to spend quality time attending to and caring for their infants, by following baby's cues and keeping mindful of baby's needs. Research shows that mothers staying present, watching and wondering about their infants can improve maternal reflective capacity. Red flags for dysfunction in mother-infant dyads include reduced maternal attunement, reduced child responsiveness to mother and restricted growth and development.

**10. Aim to integrate the above recommendations into healthcare framework for the best results.**

The healthcare community should aim to integrate well the above recommendations in preconception, pregnancy and postnatal periods into healthcare framework for the best results.

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