Nausea and Vomiting in Pregnancy

Disclaimer

Contents

Red Flags

- Nausea and vomiting commencing after 12 weeks gestation

Background – About nausea and Vomiting in Pregnancy

- Nausea, dry retching, and vomiting affect up to 70% of pregnant women.
- Hyperemesis gravidarum is persistent and severe vomiting that leads to weight loss of 5% of pre-pregnancy weight. It occurs in less than 1% of pregnancies, and often requires hospitalisation to correct dehydration and electrolyte imbalances.
- Nausea and vomiting may have a significant effect on quality of life.

Assessment

1. Take a ***history,*** including pregnancy dates.

   History
   - *Assess if nausea and vomiting is occurring at expected dates in the pregnancy i.e., it usually begins between 4 to 7 weeks, peaks at 9 weeks, and 90% have resolved by 16 to 20 weeks.*
   - *Reduced urine output or weight loss*
   - *Fluid and food intake*
   - *Symptoms of* heartburn/gastro-oesophageal reflux disease (GORD)
   - *Treatment that has been tried.*
   - *Medical history, medication, allergies.*
   - *Smoking status*
   - *Emotional health and well-being*

2. Ask about ***symptoms*** suggesting ***other causes.*** Nausea and vomiting commencing after 12 weeks gestation is unlikely to be caused by pregnancy and requires further investigation.

   Other causes
   - *Diabetes*
   - *Gallstones*
   - *Gastroenteritis*
   - *Hepatitis*
   - *Intercurrent infection, especially urinary tract*
   - *Thyroid disease*
   - *Psychological – eating disorder*
   - *Pregnancy related – multiple or molar pregnancy*

   Symptoms

   Symptoms suggesting another cause:
   - *Initial presentation after 12 weeks gestation*
   - *Abdominal pain*
   - *Fever*
   - *Headache*
   - *Neurological symptoms*

- *Urinary tract symptoms*

3. Assess degree of symptoms as mild, moderate, or severe. Consider using the modified Pregnancy-Unique Quantification of Emesis (PUQE) survey.

4. Perform ***examination.***

Examination

- Assess for ***degree of dehydration***

Degree of dehydration

  - *Mucous membranes*
  - *Peripheral circulation*
  - *Postural hypotension – a fall in blood pressure between lying and standing of ≥ 20 mmHg systolic or ≥ 10 mmHg diastolic*
  - *Skin turgour*
  - *Tachycardia*

- Weight (compare to baseline), temperature, blood pressure
- General examination related to other possible causes of symptoms, e.g. peritonism, neck stiffness

5. Arrange investigations only if severe symptoms or possible other causes:
   - Dipstick ***urinalysis for ketones.***

Urinalysis for ketones

  - *If ketones are negative, the patient is likely to have had some intake of calories and is therefore more likely to have mild nausea and vomiting.*
  - *Consider other causes of increased urinary ketones, if relevant, e.g. diabetic ketoacidosis, some metabolic disorders.*

   - MSU – UTIs in pregnancy are often asymptomatic.
   - Urea, electrolytes, and creatinine (UEC), consider magnesium, calcium.
   - LFT – Most commonly mild to moderate increase in transaminase levels. If > 4x normal, investigate other causes.
   - TSH if hyperemesis gravidarum, milder symptoms refractory to treatment, or signs and symptoms of thyrotoxicosis.
   - Transvaginal ultrasound to exclude molar or multiple pregnancy.

Management

1. Refer for emergency assessment and IV rehydration if:
   - severe or persistent nausea and vomiting refractory to treatment.
   - significant electrolyte abnormalities.
   - dehydrated and/or ketotic.
   - unable to tolerate fluids orally.
   - significant electrolyte abnormalities.
   - concurrent significant co-morbidity (e.g. Type 1 Diabetes).

Refer via:

- local Emergency Department if < 20 weeks.
- immediate obstetric assessment if ≥ 20 weeks.

2. If non-pregnancy ***cause*** of nausea and vomiting, manage as per diagnosis
3. Provide emotional and psychological support as appropriate.
4. Consider ***non-pharmacological options*** and start pregnancy-specific multivitamins[1]:

Non-pharmacological options

- *Rest when possible (fatigue can worsen nausea).*
- *Drink small amounts of fluid frequently.*
- *Eat small frequent meals.*
- *Eat crackers or plain biscuits before getting out of bed in the morning.*
- *Avoid smells or foods that trigger symptoms.*
- *Consume ginger in doses equivalent to 1 to 2 g of powdered ginger daily, e.g. ginger tea, capsules.*
- *Consider wrist acupressure. Some women find this helpful, however, evidence is limited.*
- *In the absence of iron-deficiency anaemia, change to a multivitamin without iron.*
- *Pyridoxine (vitamin B6) 10 to 25 mg orally 3 to 4 times daily, can be given up to 200 mg daily:*
  - *May be helpful for some patients.*
  - *Evidence surrounding efficacy is conflicting.*

5. If no response to non-pharmacological options, consider ***pharmacological options.***

Pharmacological options

- *The choice of antiemetic should be based on the pattern of symptoms and previous response to treatment.*
- *Consider combination therapy with sedating and non-sedating agent.*
- *Any potential increase in the risk of congenital abnormalities should be discussed in comparison to the background risk of abnormalities (approx. 3%)*[2]
- *If unable to tolerate oral agents, use parenteral or rectal modes of delivery:*
  - *Doxylamine*:
    - *12.5 mg to 25 mg orally at night. Increase as tolerated to 12.5 mg morning and midday and 25 mg at night.*
    - *May be very sedating.*
  - *Prochlorperazine*:
    - *5 to 10 mg orally three to four times a day, or*
    - *25 mg oral/rectal once per day, or*
    - *12.5 mg intramuscular injection once per day.*
  - *Promethazine*:
    - *10 to 25 mg orally, or*
    - *12.5 mg to 25 mg intramuscular injection up to three times a day.*
    - *Good at night due to sedative effect.*
  - *Metoclopramide*:
    - *10 mg orally, or*
    - *10 mg intramuscular injection three times a day (max 30 mg per day).*
    - *Not for regular use for > 5 days, to reduce adverse neurological effects.*
  - *Ondansetron*:
    - *4 to 8 mg orally two to three times a day – wafer or tablet.*

        - *Advise about constipation.*
        - *Conflicting data but does not appear to increase overall risk of birth defects.*[2]
        - *Inform patient they will need to pay full cost of medication as it is not on PBS for vomiting or hyperemesis in pregnancy.*
    - *In severe cases, steroid medication (hydrocortisone or prednisolone) may be prescribed in hospital but should not be initiated without obstetric advice. Possibly associated with an increase in oral clefts.*

6. If heartburn/gastro-oesophageal reflux disease (GORD), advise lifestyle and dietary modifications, and consider using ***medications.***

    Medications
    Medications for heartburn/gastro-oesophageal reflux disease (GORD):

    - *If patients with persistent symptoms, begin pharmacologic therapy with alginates or antacids:*
        - *Alginates, e.g. Gaviscon, are particularly useful if heartburn symptoms are predominant.*
        - *Occasional use of antacids is safe.*

    - *If symptoms are more severe or persistent, consider:*
        - *ranitidine 150 mg twice daily, or*
        - *if no response, consider omeprazole 10 to 20 mg daily.*

7. If ***risk factors*** present, consider dietitian referral.

    Risk factors
    Consider dietitian referral when:
    - *Unintentional weight loss ≥ 5% or BMI ≤ 18.5 kg/m^2*
    - *Prolonged vomiting and nausea > 2 weeks.*
    - *Unable to take prescribed vitamin therapy.*
    - *Oral intake < 50% of normal and/or avoidance of major food groups.*
    - *Multiple pregnancy.*
    - *Previous moderate or severe hyperemesis that required nutrition support.*
    - *Severe or persistent hyperemesis and/or no weight gain by second trimester.*

8. If severe or persistent vomiting, prescribe 50 mg thiamine orally daily to prevent Wernicke's encephalopathy.
9. If no response to oral antiemetics after 2 to 3 days, consider referring:
    - to the local emergency department for rehydration and possible admission if < 20 weeks.
    - for immediate obstetric assessment if ≥ 20 weeks.

Referral

- Refer for emergency assessment and IV rehydration if:
    - severe or persistent nausea and vomiting refractory to treatment.
    - significant electrolyte abnormalities.
    - dehydrated and/or ketotic.

- unable to tolerate fluids orally.
- significant electrolyte abnormalities.
- concurrent significant co-morbidity (e.g. Type 1 Diabetes).

Refer via:

- local Emergency Department if < 20 weeks.
- immediate obstetric assessment if ≥ 20 weeks.

- If ***risk factors*** present, consider dietitian referral.

Information

For health professionals

Further information

- Australian Prescriber – Treatment of Nausea and Vomiting in Pregnancy
- Monash Health – Pregnancy Induced Vomiting and Hyperemesis Gravidarum: Clinical Guideline
- Royal College of Obstetricians and Gynaecologists – The Management of Nausea and Vomiting of Pregnancy and Hyperemesis Gravidarum
- SOMANZ – Guideline for the Management of Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum 2019
- The Royal Women's Hospital – Coping With Nausea and Vomiting in Pregnancy

For patients

- Mothersafe – Nausea and Vomiting of Pregnancy
- The Royal Women's Hospital – Coping with Nausea and Vomiting in Pregnancy

References

1. RANZCOG - Women's Health Committee. Vitamin and Mineral Supplementation in Pregnancy. Australia: RANZCOG; 2008. [updated 2019 Nov 01; cited 2020 Jan 13]. 14 p.
2. Lowe S.A., Bowyer L., Beech A., Robinson H., Armstrong G., Marnoch C., Grzeskowiak L. Guideline for the management of nausea and vomiting in pregnancy and hyperemesis gravidarum. Sydney: SOMANZ; 2019.

Select bibliography

eTG Complete. Melbourne: Therapeutic Guidelines; Nausea and vomiting in pregnancy (subscription required). 2018. [updated 2016 Mar 01].

Disclaimer

Last updated: June 2020