PRIMARY CARE MANAGEMENT OF NAUSEA AND VOMITING IN EARLY PREGNANCY

Introduction

Nausea and vomiting affects up to 80% of pregnant women and is one of the most common indications for hospital admission in the first trimester of pregnancy. For many the symptoms can be controlled in primary care with dietary advice and medication. This should be diagnosed only when onset is in the first trimester and once the other causes of vomiting have been excluded.

Hyperemesis gravidarum is a severe form of nausea and vomiting in pregnancy that accounts for 0.3-3.6% of cases. It is a diagnosis of exclusion characterised by prolonged, severe nausea and vomiting, dehydration, electrolyte imbalance, ketosis, and body weight loss >5% pre-pregnancy body weight.

Important considerations

- If the onset of nausea and vomiting is after 10^{+6} weeks of gestation, consider alternative diagnosis.

  Differential diagnoses:
  GU - UTI, uraemia, pyelonephritis.
  Drug induced - iron, antibiotics, opioids.
  Neurological - vestibular disease, migraine.
  Pregnancy related conditions - acute fatty liver, pre-eclampsia (if onset in second half of pregnancy).
  Psychological - eating disorders.
  Metabolic/endocrine - Hypercalcaemia, thyrotoxicosis, DKA, Addison's disease.
  GI - gastroenteritis, peptic ulcer, pancreatitis, bowel obstruction, hepatitis, cholelithiasis, cholecystitis, Helicobacter pylori infection, appendicitis.
- 90% of women find symptoms resolve by the 20th week.
- Transient hyperthyroidism may be present in 60% of women with hyperemesis and is usually self-limiting but may need treatment. Abnormal liver function tests are associated with severe hyperemesis.
- There is no evidence of harm from the use of standard antiemetics in pregnancy, but women may need re-assurance about their safety. A patient leaflet on antiemetics in pregnancy is available from the BUMPS website.
- Decide when to stop medication using a pragmatic approach (for example it may be possible to stop antiemetic medication at around 12–16 weeks, by which time symptoms have usually improved) in conjunction with clinical judgment (for example severity of symptoms, response to treatment in previous pregnancies, preference of the woman).
- Antiemetics should generally be prescribed as an **acute prescription** rather than added to a patient's repeat prescription to ensure appropriate review.
- It is common for women to require combination of anti-emetics. Initially one drug should be used at a time and for 48 hours before trying or adding another.
- Hyperemesis tends to recur in subsequent pregnancies and women who are affected can benefit from the early use of antiemetics, and the issue of stand-by medication and Ketostix® at the start of their pregnancies.
- Further guidance on the management of nauseas and vomiting in pregnancy can be accessed from the Royal College of Obstetricians and Gynaecologists or NICE CKS.

Management of patients presenting with nausea and vomiting

History:
Date of Last Menstrual Period
Previous history of hyperemesis
Onset and frequency of vomiting and effect on functioning
Presence of symptoms suggestive of other causes e.g., diarrhoea, abdominal pain, dysuria, dyspepsia, any abnormal vaginal loss e.g., bleeding
Consider using PUQE score (*see appendix 2*).

Examination:
Signs of dehydration
Weight,
Temperature, pulse, BP, respiratory rate
Abdominal tenderness
Check urine for ketones/UTI.

Investigations: Consider MSU
FBC, U+Es, TFTs, LFTs
Early ultrasound scan to exclude molar pregnancy/ multiple pregnancy.

Mild Symptoms
+ no ketonuria

Advice about dietary changes and coping strategies –
See appendix 1

Moderate Symptoms (or persistent symptoms despite dietary advice)
+/- ketonuria (++ or less on dipstick urine ketone test)

Prescribe oral antiemetics^ as follows:

	Anti-emetic	Dose/frequency	Duration
1.	Promethazine (sedating)	25mg at night. Increase to 25mg up to three times a day if needed	48 hour trial
If no effect or not tolerated change to:			
2.	Cyclizine	50mg three times a day	48 hour trial
If no effect or not tolerated, add in or change to:			
3.	Prochlorperazine (use oral initially, if not tolerated change to buccal before progressing to next step)	5-10mg three times a day (oral) OR 3-6mg twice a day (buccal)	48 hour trial
If no effect or not tolerated stop prochlorperazine and add in:			
4.	Metoclopramide	10mg three times a day	Maximum 5 day course*

Consider anti-reflux medication:
Alignates*(1st line)* ***+/- omeprazole*** *20mg once a day (2nd line).*

Recurrent symptoms in the same pregnancy:
Restart treatment cycle **and start f*olic acid*** *5mg* daily and ***thiamine*** *50mg twice day.*

*****Ondansetron[#] or corticosteroids should not be used without discussion with a consultant gynaecologist unless patient is discharged home on these. *****

Severe Symptoms (or unable to keep oral fluids down)
+/-ketonuria (>++ on dipstick urine ketone test)
+/- 5% loss of pre-pregnancy weight
+/- PUQE score >13

Refer for intravenous fluids and parenteral antiemetics in gynaecology day case

NB. There should be a lower threshold for seeking specialist advice if the woman has a co-existing condition (for example diabetes) which may be adversely affected by nausea and vomiting.

^These anti-emetics are safe to use with caution whilst breastfeeding.

*Seek specialist advice if treatment unsuccessful.

[#]Ondansetron is classified as Amber 2 following MHRA alert regarding a possible increased risk of oral clefts with first trimester use.

Doxylamine/pyridoxine (Xonvea®) is restricted for Specialist initiation for severe hyperemesis. Licensed treatment option, but poor evidence of efficacy & significantly more expensive than other well-established options.

Appendix 1- Nausea and Vomiting in Early Pregnancy – Patient information.

Nausea and vomiting in pregnancy, also known as morning sickness, is very common in early pregnancy. It is unpleasant, but it does not put your baby at any increased risk and usually clears up by weeks 16 to 20 of pregnancy.

Practical advice

If you have morning sickness, your GP or midwife may initially recommend that you try a number of changes to your diet and daily life to help reduce your symptoms. These include:

- drinking plenty of fluids, such as water, and sipping them little and often rather than in large amounts, as this may help prevent vomiting.
- getting plenty of rest – tiredness can make nausea worse.
- if you feel sick first thing in the morning, give yourself time to get up slowly – if possible, eat something like dry toast or a plain biscuit before you get up.
- eating small, frequent meals that are high in carbohydrate (such as bread, rice, and pasta) and low in fat – most women can manage savoury foods, such as toast, crackers, and crispbread, better than sweet or spicy foods.
- eating small amounts of food often rather than several large meals – but don't stop eating.
- eating cold meals rather than hot ones as they don't give off the smell that hot meals often do, which may make you feel sick.
- avoiding drinks that are cold, tart (sharp) or sweet.
- asking the people close to you for extra support and help – it helps if someone else can cook, but if this is not possible, go for bland, non-greasy foods, such as baked potatoes or pasta, which are simple to prepare.
- distracting yourself as much as you can – the nausea can get worse the more you think about it.
- wearing comfortable clothes without tight waistbands.
- eat foods or drinks containing ginger – ginger has been used to treat nausea and vomiting during pregnancy for many years, although there is little scientific evidence for it.
- acupressure on the wrist has been used to treat nausea and vomiting during pregnancy for many years, although there is little scientific evidence for it. Acupressure involves wearing a special band or bracelet on your forearm.

If you have severe morning sickness, your doctor or midwife might recommend medication.

When to see a doctor for morning sickness

If you are vomiting and cannot keep any food or drink down, there is a chance that you could become dehydrated or malnourished. Contact your GP or midwife immediately if you:

- have very dark-coloured urine or do not pass urine for more than eight hours.
- are unable to keep food or fluids down for 24 hours.
- feel severely weak, dizzy, or faint when standing up.
- have abdominal (tummy) pain.
- have a high temperature (fever) of 38C (100.4F) or above.
- vomit blood
- repeated unstoppable vomiting.
- have lost weight.

This information is taken from the NHS Choices website. Further information is available on the NHS choices website and from www.pregnancysicknesssupport.org.uk. Pregnancy Sickness Support also offer a helpline: 024 7638 2020 or email: support@pregnancysicknesssuppport.org.uk.

Appendix 2- Pregnancy-Unique Quantification of Emesis (PUQE)

An objective and validated score of nausea and vomiting that can be used to classify/monitor the severity of symptoms.

In the past 24 hours, how long have you felt nauseated or sick to your stomach?	*Not at all (1)*	*1 hour or less (2)*	*2-3 hours (3)*	*4-6 hours (4)*	*More than 6 hours (5)*
In the past 24 hours have you vomited or thrown up?	*7or more times (5)*	*5-6 times (4)*	*3-4 times (3)*	*1-2 times (2)*	*Nil (1)*
In the past 24 hours, how many times have you had retching or dry heaves without bringing anything up?	*No time (1)*	*1-2 times (2)*	*3-4 times (3)*	*5-6 hours (4)*	*7 or more times (5)*

Total score is the sum of replies to each of the three questions.

PUQE score: Mild ≤ 6; Moderate 7-12; Severe 13-15

References:

BMJ 2011;342:d3606,
CKS Nausea/vomiting in pregnancy, Feb 2020,
NICE NG201; Antenatal care, August 2021
RCOG: The management of nausea and vomiting of pregnancy and hyperemesis gravidarum, 2016,
MHRA Drug safety update 2020: Ondansetron: small increased risk of oral clefts following use in the first 12 weeks of pregnancy.