Ask The Expert:

Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum

Nausea and vomiting in pregnancy (NVP) and hyperemesis gravidarum (HG) can cause significant emotional, psychological, physical, and financial distress for women and their families.

Ask the Expert: NVP vs. HG

Is 6 weeks of pregnancy too early to experience nausea and vomiting or hyperemesis?
Nausea and vomiting associated with pregnancy (NVP) usually starts early in pregnancy. Symptoms can range from mild to moderate nausea and vomiting, but do not often interfere with daily activities.

Hyperemesis gravidarum (HG) is severe nausea and vomiting in pregnancy. Women may find it hard to eat or drink anything or keep food down. For some women with HG, the symptoms stop between 13 to 20 weeks, while a few women have HG their entire pregnancy.

Where do I start with treatment options for HG?
The recommendation is to start by using the Pregnancy Unique Quantification of Emesis (PUQE-24) scoring tool to assess current symptoms. The impact of symptoms on the patient and their daily function needs to be assessed, and treatment recommendations should be given that follow the NSW Health Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum Guideline.

What interventions could be offered?
Non-pharmacological interventions
Interventions include:

- changing activities to prioritise rest
- adopting dietary habits to maintain hydration and nutrition
- oral ginger
- acupressure bands
- avoiding iron-containing preparations

Pharmacological interventions
Pharmacological management of NVP and HG may require a combination of treatments including: antiemetics, corticosteroids, gastric acid suppression, laxatives, and other supplements, including vitamins. Medications included in the Prescribing Pathway adapted from the NSW Health Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum Guideline (see Table 1 – Prescribing Pathway) may be used outside of their registered indications, in an evidence based, safe and effective manner.

Timing of pharmacological treatments should reflect the symptom pattern experienced and continued monitoring is essential to ensure therapeutic effect is maintained. Management may change frequently, based on the patient's symptoms and therapeutic effects achieved.

Ask the Expert: Treatments for NVP and HG

Which interventions are available over the counter?
Many interventions recommended for NVP and HG are available over the counter in community pharmacies, including oral ginger, acupressure bands, antacids, laxatives, sedating antihistamines (such as doxylamine or promethazine) and some acid suppression medications (see Table 1 – Prescribing Pathway for full list of medications).

Which over the counter interventions can I recommend?
Some medications are available without speaking to a pharmacist, however some will require pharmacist

involvement. Health professionals can recommend and/or prescribe different treatments, depending on the classification of the medication.

Have all the interventions been proven to be safe in pregnancy?
For all the medications included in the NSW Health Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum Guideline, current evidence does not demonstrate any increased risk of major congenital malformations. Patients with NVP and HG should be counseled on the risks and adverse effects of all recommended or prescribed medications.

Complications of NVP / HG
NVP and HG can be debilitating, and complications can occur, including the following:

- malnutrition and loss of muscle mass
- Mallory-Weiss tear
- electrolyte disturbance such as hyponatraemia and hypokalaemia
- venous thromboembolism
- abnormal thyroid and liver function
- placental dysfunction – which may be associated with an increased risk of small for gestational age
- babies, preterm birth, preeclampsia, and placental abruption
- dehydration and renal failure
- haemorrhoids
- dental enamel erosion
- adverse impact on mental health, family unit, ability to perform usual duties and paid work.

Women with NVP and HG should receive an individual care plan to support consistency in assessment, diagnosis, management, and treatment. Individual treatment options and advice must be based on the woman's symptoms and severity, and reflect the woman's patterns and preferences. Management algorithms are outlined in in NSW Health Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum Guideline. Management may change frequently, based on the patient's symptoms and therapeutic effects achieved.

Which laxatives are safe to use in pregnancy?
Stool softeners and fibre-based bulking agents are the preferred first line options. Senna and other stimulant laxatives may cause cramping, and osmotic laxatives often require significant liquid volume intake which may contribute to nausea and vomiting.

Can patients drive when using the medications for NVP and HG?
Some medications can cause sedation. It is not recommended to operate heavy machinery or drive until the patient is aware of how they are affected by the medication.

What are the categories of medications? Is it safe to recommend them to pregnant patients?
The Australian categorisation of medicines for use in pregnancy does not follow a hierarchical structure. The use of a medication in pregnancy should consider the current evidence regarding the risk of the medication in pregnancy and the need of the woman for the medication in pregnancy. Using the category alone without individualising the approach to prescribing is not appropriate.

All medications have risks associated with their use. Current evidence does not demonstrate any increased risk of major congenital malformations for medications included in the guidelines. The use of pharmacological treatments in accordance with evidence-based guidelines for NVP and HG is recommended, provided the patient consents, and is counselled on their use, including potential benefits and adverse effects or risks of use.

What about "off-label" use of medications?

A medicine is defined as being "**off-label**" when it is used for an indication, a dose, a route of administration or in a patient group that is not included in the approved product information. Many of the recommended medicines for NVP/HG are considered "off-label" because their use for this indication or use in pregnant women is not part of the approved product information. It's important to note that "off-label" medicine use is legal but must be clinically appropriate, supported by good quality evidence and/or formal guidelines, and in line with current legislation. The use of all medications, including those used "off-label" should involve a discussion on the potential risks and benefits of the medication The woman must be involved in the decision-making process and their informed consent is required prior to undertaking the treatment.

Use of multiple medications is usually discouraged – why is it ok when treating pregnant women with NVP or HG?

As the etiology of NVP and HG remains unclear but is likely to be multifactorial, the management pathway is likely to require more than one treatment at a time. It should be noted that appropriate management of patients with several medicines can prevent unplanned hospital admissions[2]. The management of NVP and HG should include:

- interventions to reduce nausea (both pharmacological and non-pharmacological)
- management of associated gastric dysmotility (e.g. gastroesophageal reflux, constipation)
- maintenance of hydration and nutrition
- psychosocial support
- monitoring of therapeutic outcome and adverse effects.

What should I consider before recommending a treatment?

Considerations for treatments in NVP and HG include:

- the main concerns of the woman and how they can be managed and supported
- setting realistic goals with the woman. The complete resolution of symptoms may not be required for the patient to be able to eat and drink
- timing of administration of pharmacological therapy to reflect symptom pattern. Symptoms often fluctuate, and treatment care plans should be individualised to reflect this
- frequent review of therapeutic effect, adverse effects and symptom pattern should be undertaken
- the use of an individual patient management plan is recommended.

The plan should include information of symptom pattern, therapeutic effects of treatments, titration of treatments (if required) and adverse effects experienced.

Where can patients get further information?

Patients with NVP or HG can seek advice from their GP, obstetrician, community pharmacist or midwife. Hyperemesis Gravidarum Australia website. Online resource where patients with NVP and HG share their stories and resources.

MotherSafe is a free telephone service for the women that can provide counselling and advice on medications to support nausea and vomiting in pregnancy, Monday – Friday; 9 am – 9 pm. Call 1800 647 848 or search 'MotherSafe NSW' for more information.

Where can health professionals get further information?

Health professionals may also engage with MotherSafe for advice on medications to support nausea and vomiting in pregnancy, using the contact details above.

- NSW Health Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum Guideline.
- S. A. Lowe, L. Bowyer, A. Beech, H. Robinson, G. Armstrong, C. Marnoch and L. Grzeskowiak, "Guideline for management of nausea and vomiting of pregnancy and hyperemesis gravidarum." SOMANZ, 2019. [Online]

Table 1 – Prescribing Pathway (adapted from NSW Health Guideline: Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum with practice points for medications available over the counter)

	Mild PUQE-24 ≤ 7	Moderate PUQE-24 = 7 to 12	Severe (PUQE-24 ≥ 13) or hyperemesis gravidarum – Outpatient management	Practice points for medications available over the counter
Antiemetics and corticosteroids	• ginger^ **and/or** • pyridoxine^ (vitamin B6)	One of the following: • doxylamine^ (plus pyridoxine^) • metoclopramide • prochlorperazine^ • promethazine^ • diphenhydramine^ **or** • ondansetron (plus laxative/s^)	• ondansetron (plus laxative/s^) **And consider night-time dosing with either:** • doxylamine^ (plus pyridoxine^) **or** • cyclizine^ **or** • metoclopramide **or** • promethazine^ **or** • prochlorperazine^ **If significant symptoms persist:** • consider corticosteroids: prednisone/prednisolone **or** methylprednisolone **or** hydrocortisone • consider droperidol	Standardised products of oral ginger are preferred over food or drinks. Pyroxidine is more effective when used in combination with doxylamine. Night-time only use is recommended for sedating agents such as doxylamine, cyclizine, promethazine and prochloperazine. Only a single antihistamine agent should be used at a time. High doses of prochlorperazine should be avoided close to birth due to potential for withdrawal symptoms including sedation, poor sucking and feeding difficulties.
Laxatives	Docusate^ 120mg oral once or twice a day **and/or** macrogol^ oral once or twice a day **and/or** lactulose^ 15 to 30mL oral once or twice a day			
Acid suppression	-	H2 antagonist: • famotidine **or** • nizatadine (if unavailable use a proton pump inhibitor)	Cease H2 antagonist and commence proton pump inhibitor: • esomeprazole^ **or** rabeprazole **or** omeprazole^ **or** lansoprazole	Antacids^ containing magnesium, calcium or aluminium can be used as required for mild symptoms. Can cause constipation or diarrhoea in high doses.
Intravenous (IV) therapy	-	IV fluids 1 to 3 times per week as required Add IV thiamine if poor oral intake or administering glucose		
Additional therapies	-	-	Consider enteral nutrition VTE prophylaxis if indicated	

^Available over the counter

References:

1. NSW Health GL2022_009 Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum. [Online]. Accessed 11 Aug 2023
2. S. A. Lowe, L. Bowyer, A. Beech, H. Robinson, G. Armstrong, C. Marnoch and L. Grzeskowiak, "Guideline for management of nausea and vomiting of pregnancy and hyperemesis gravidarum." *SOMANZ*, 2019. [Online]. Accessed 11 Aug 2023.