HYPEREMESIS GRAVIDARIM (HG) AND NAUSEA AND VOMITING IN PREGNANCY (NVP) - MANAGEMENT

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Assess and appropriately manage woman with nausea, vomiting or hyperemesis in pregnancy

2. PATIENT

- Pregnant woman who presents with mild, moderate, or severe vomiting or hyperemesis

3. STAFF

- Medical, midwifery and nursing staff
- Dietician
- Social Worker

4. EQUIPMENT

- 18 and 20 gauge (G) intravenous (IV) cannula
- IV giving set
- Pathology collection tubes (EDTA and serum gel)
- Weighing scales
- Glucometer and blood ketone strips

5. CLINICAL PRACTICE

- Use this in any of the following clinical settings:
    - General practice (GP)
    - Emergency department (ED)
    - Early pregnancy assessment service (EPAS)
    - Maternity outpatient/antenatal clinic
    - Pregnancy day stay unit (PDSU)

ASSESSMENT

- Take a detailed obstetric and medical history
- Confirm details of current pregnancy including:
    - pregnancy confirmation and gestational age
    - history of vaginal bleeding
    - investigations and ultrasounds to date
- Complete medical history including:
    - onset and pattern of nausea and vomiting
    - fluid and dietary intake
    - exacerbating factors e.g. multivitamin use
    - current management (if any)
    - weight loss

HYPEREMESIS GRAVIDARIM (HG) AND NAUSEA AND VOMITING IN PREGNANCY (NVP) - MANAGEMENT cont'd

- Use the 'Motherisk' Pregnancy-Unique Quantification of Emesis and Nausea (PUQE-24) scoring table (Table 1) to correctly classify the woman as having NVP or HG:[2]
    - Nausea and vomiting of pregnancy (NVP): Nausea, vomiting and/or dry retching caused by pregnancy, with symptoms commencing in the first trimester, without an alternate diagnosis:
        - Mild: PUQE-24: 4-6
        - Moderate: PUQE-24: 7-12
        - Severe: PUQE-24: ≥13
    - Hyperemesis Gravidarum (HG): Nausea and/or vomiting caused by pregnancy leading to significant reduction of oral intake and weight loss of at least 5% compared with pre-pregnancy, with or without dehydration and/or electrolyte abnormalities. By definition, this condition is considered severe[2]

Table 1. Motherisk PUQE-24 scoring system

1. In the last 24 hours, for 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 to 6 hours (4)	More than 6 hours (5)
2. In the last 24 hours, have you vomited or thrown up?				
I did not throw up (1)	1 to 2 (2)	3 to 4 (3)	5 to 6 (4)	7 or more times (5)
3. In the last 24 hours, how many times have you had retching or dry heaves without throwing up?				
None (1)	1 to 2 (2)	3 to 4 (3)	5 to 6 (4)	7 or more times (5)

Clinical Examination:

- Perform a full set of observations on the woman including weight
- Assess hydration status and fluid deficit including decreased skin turgor, dry mucous membranes, decreased urine output, concentrated urine, and postural drop in blood pressure. The physical examination should be directed towards identification of alternate diagnoses (see appendix 1)

Investigations:

- Perform the following investigations for the woman with severe NVP (PUQE-24 ≥13) or suspected HG at first presentation:
    - Sodium, potassium, chloride, bicarbonate, magnesium, urea, and creatinine
    - Bilirubin, alanine transaminase (ALT), aspartate aminotransferase (AST), albumin
    - Obstetric ultrasound to exclude multi-fetal or gestational trophoblastic disease
    - Thyroid stimulating hormone (TSH) should be measured in a woman where HG or NVP is refractory to treatment or in those with milder symptoms who have signs or symptoms of thyrotoxicosis

HYPEREMESIS GRAVIDARIM (HG) AND NAUSEA AND VOMITING IN PREGNANCY (NVP) - MANAGEMENT cont'd

- Do not perform investigations on the woman with mild-moderate nausea and vomiting of pregnancy (PUQE-24 ≤12) where symptoms are not suspicious for HG or another diagnosis.
- Remeasure electrolytes daily or less frequently if stable after commencement of therapy in a woman requiring repeated IV fluids or admission to hospital. More frequent monitoring of electrolytes (at least daily) is required for a woman with diabetes or other significant underlying conditions. A woman not requiring admission to hospital or treatment with IV fluids should only have electrolytes remeasured if her condition deteriorates[2]

MANAGEMENT

- Aim to manage the woman with NVP (PUQE-24 score <13) in the community
- Provide woman with 'Sickness and Vomiting in Pregnancy - Patient Information' (Appendix 2)
- Communicate a clearly documented ongoing management plan to the woman using the 'Sickness in Pregnancy Plan' (Appendix 3) and the treating team members via documentation in her medical record
- Consider the most appropriate setting to deliver parenteral fluid resuscitation and antiemetic therapy including:
    - GP
    - Hospital in the Home
    - ED
    - PDSU
    - Inpatient (Antenatal and Macquarie Ward) – required at least initially for a woman with:
        - Severe electrolyte disturbance e.g. potassium < 3.0 mmol/L
        - Significant renal impairment or acute kidney injury: creatinine > 90 mmol/L
        - Concurrent significant co-morbidity e.g. Type 1 diabetes and other high-risk conditions (e.g. short bowel syndrome) or those requiring continuity of essential oral medications (e.g. severe epilepsy, transplant recipients)[2]
- Arrange fetal growth surveillance in the third trimester of pregnancy for any woman with HG[2]

Non-pharmacological Treatments

- Recommend modification of working patterns, exercise, daytime sleeps, and earlier bedtime (may help)
- Advise woman to eat whatever and whenever they can to maintain nutrition and hydration (Appendix 2)

Pharmacological Treatments

- **Antiemetic therapy**
    - Individualise the choice of antiemetic according to the woman's symptoms, previous response to treatment and potential side effects
    - Refer to the 'Society of Obstetric Medicine of Australia & New Zealand (SOMANZ) Management of NVP/HG Management Algorithms Part 1 and Part 2' for PUQE-24 score specific management (Appendix 4 and 5):
        - Mild-moderate initial treatment: Start with ginger ± B6, add oral antihistamine or dopamine antagonist if needed

HYPEREMESIS GRAVIDARIM (HG) AND NAUSEA AND VOMITING IN PREGNANCY (NVP) - MANAGEMENT cont'd

- Moderate-severe NVP, inadequate response to initial treatment or excessive sedation: consider add/substitute oral serotonin antagonist at least during daytime. If not tolerating oral treatment, substitute with IV/intramuscular (IM) equivalent if available
- Intractable NVP or HG: consider corticosteroids in addition to other antiemetics

- **Acid suppression therapy**
  Treat the woman with severe NVP or HG with antacids, histamine 2 (h2) antagonists or proton-pump inhibitors (PPI) (Appendix 5)[2]

- **Constipation management**
  Prescribe laxatives to every woman with constipation or at risk of constipation (e.g. from serotonin antagonists) (Appendix 5)[2]

Intravenous Fluid and Electrolyte Replacement

- Treat the woman with dehydration or uncontrolled vomiting with IV fluids, including prior to the development of electrolyte deficiency (see Table 2)
- Administer an initial dose of 300mg IV thiamine if dextrose-based solutions are used or if there is evidence of significant undernutrition to avoid Wernicke's encephalopathy
- Review electrolytes and treat hypokalaemia, hyponatraemia, and hypomagnesemia if present[2]

Table 2: Recommendations for parenteral replacement of IV fluids and electrolytes potassium (K), magnesium (Mg)

Type of fluid	Quantity/Rate	Comments
0.9% sodium chloride (NaCL)	1-2 L Initial rate 1L/hour	Further IV fluids should be given at a rate of 1L/1-2 hours or slower to correct dehydration and electrolytes (see below)
4% dextrose and 0.18% sodium chloride or 5% dextrose	1 L Initial rate 1L/2 hours.	Consider as an option if minimal oral intake, starvation, or uncontrolled nausea and only after correction of thiamine deficiency (thiamine 300mg/d IV) and exclusion of hyponatremia
Add electrolytes as required		
Potassium chloride (KCl)	30-40 mmol/L. Maximum infusion rate 10mmol over 1 hour	Administer with caution as per local protocol. Preferred product is premixed 30mmol KCl in 1 L bags of 0.9% NaCl. Use large peripheral vein or central venous access only
Magnesium sulphate ($MgSO_4$)	10-20 mmol/day over 20-40 minutes	Dilute with 100ml 0.9% NaCl. Use large peripheral vein or central venous access only

HYPEREMESIS GRAVIDARIM (HG) AND NAUSEA AND VOMITING IN PREGNANCY (NVP) - MANAGEMENT cont'd

- Arrange ongoing treatment with intermittent outpatient or continuous inpatient IV fluid and parenteral antiemetic therapy (e.g. RHW PDSU or GP office) for woman with ongoing poor oral intake or continued nausea and/or vomiting despite antiemetic therapy. e.g. A woman seen in ED with ongoing moderate or greater symptoms despite oral therapy
- Refer woman requiring >1 episode of IV therapy to the Obstetric Medicine clinic for optimisation of therapy

Psychological support

- Screen woman with HG or severe NVP for depression and associated mental distress at first presentation and refer as appropriate

6. DOCUMENTATION

- Medical Record
- SOMANZ Sickness in Pregnancy Plan

7. EDUCATIONAL NOTES

- Nausea and vomiting are common symptoms of pregnancy, global prevalence of 69%[3]. In a recent Australian observational study 72% of women reported NVP of which 42% had mild symptoms, 55% moderate and 1% severe[4]
- The incidence of HG is much lower than NVP at 1.1%, depending on the definitions used
- Both NVP and HG typically have their onset between the 4th and the 10th week of gestation, with the majority experiencing resolution by 20 weeks gestation. In the global meta-analysis, 24% of women described NVP even in late pregnancy and in approximately 10% of HG patients, symptoms persisted throughout pregnancy[3,6]. In another prospective recent study, only 50% of women reported relief of their symptoms by 14 weeks' gestation although 90% had relief by week 22
- The aetiology of NVP and HG remains unclear but is likely to be multifactorial. Conditions with higher hCG levels, such as trophoblastic disease and multiple pregnancy, have been associated with increased severity of NVP. In a recent meta-analysis, helicobacter pylori (H. Pylori) infection was associated with an increased likelihood of HG during pregnancy. Other associations including deficiency of trace elements, excess thyroid hormones, gravidity, multiple pregnancy, fetal female sex, psychiatric and dietary factors have all been suggested as part of the aetiology but the methodology to support these hypotheses has been criticised[2]
- In women with HG or severe NVP, several studies have suggested a higher incidence amongst first degree relatives [1]
- Many women with vomiting in pregnancy experience symptoms of gastroesophageal reflux (GER) as well, and the presence of such symptoms is associated with more severe NVP [2]
- IV fluids have been shown to reduce vomiting and are therefore valuable for both outpatient and inpatient management of the symptoms of HG and severe NVP as well as associated dehydration and electrolyte disorders
- When selecting pharmacotherapy for NVP and HG, the prescriber needs to make a rational assessment of maternal and fetal benefit versus risk. The woman must be appropriately counselled prior to the commencement of therapy. Any potential increase in the risk of congenital malformation needs to be compared with the background rate of congenital malformations which was 3.1% [2]

HYPEREMESIS GRAVIDARIM (HG) AND NAUSEA AND VOMITING IN PREGNANCY (NVP) - MANAGEMENT cont'd

- There is inconsistent evidence regarding the risk of congenital malformation with the use of ondansetron and corticosteroids in the first trimester[2]:
    - Ondansetron is therefore recommended for second line use
    - Corticosteroids have generally been used after other antiemetic therapies have failed or are inappropriate and should be reserved for more severe NVP or HG
    - Refer to the 'SOMANZ Guideline for the Management of Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum 2019' for comprehensive information regarding mode of action, efficacy, and safety for each agent.
- In severe cases, if antiemetic and steroid therapy has failed, nutritional support via enteral or parenteral routes may be required to adequately restore hydration, correct electrolyte imbalance and maintain nutrition. Enteral nutrition would preferentially be recommended over total parenteral nutrition (TPN) in most cases. Patients commencing enteral or parenteral nutrition are at high risk of refeeding syndrome and need to be monitored closely, with a slow introduction of supplementation[5]. Dietician involvement is essential for commencement of enteral and parenteral feeding regimens[2].

- Mild-moderate NVP without features of HG is associated with a favourable effect on the rate of miscarriage, congenital malformations, prematurity, and childhood performance intelligence quotient[7]
- Women with HG were found to have high rates of post-traumatic stress syndrome, with several associated negative outcomes including inability to breastfeed, marital problems, financial problems, and inability to self-care[2]
- HG has also been associated with placental dysfunction as evidenced by an increased risk of small baby or preterm birth and preterm preeclampsia, a threefold increased risk of placental abruption and an increased risk of small for gestational age (SGA) newborn. It is unclear whether HG is associated with an increased risk of stillbirth
- Social isolation is a major risk factor; social work review and support should be assessed in each case and whether responsibilities can be delegated to another member of the family[2]

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- Estimated Due Date (EDD)
- EPAS – Management of women with problems in early pregnancy
- Magnesium Chloride Intravenous Replacement for Electrolyte Replacement
- Potassium – Administration of Oral and Intravenous Infusion
- Management of Pre-Gestational Diabetes in Pregnancy Policy SESLHDPD/283
- Management of Gestational Diabetes Mellitus (GDM) Policy SESLHDPD/282
- Enteral (Nasogastric Tube) Feeding
- Parenteral Nutrition – Adult

9. RISK RATING

- Medium

10. NATIONAL STANDARD

- Standard 5 - Comprehensive care
- Standard 4 - Medication Safety
- Standard 2 - Partnering with Consumers

HYPEREMESIS GRAVIDARIM (HG) AND NAUSEA AND VOMITING IN PREGNANCY (NVP) - MANAGEMENT cont'd

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REVISION & APPROVAL HISTORY
Reviewed and endorsed Maternity Services LOPs 6/8/20
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Maternity Services LOPs group 18/6/13

FOR REVIEW : DECEMBER 2023

…./Appendices

Appendix 1. Differential diagnosis of Nausea and Vomiting in Pregnancy (NVP)

Differential diagnosis of NVP in pregnancy [more common causes in bold]

Gastrointestinal

Infectious gastroenteritis
Gastro-oesophageal reflux disease-Helicobacter Pylori
Infectious hepatitis
Pancreatitis
Biliary tract disease
Peptic ulcer disease
Bowel obstruction
Gastroparesis
Appendicitis
Peritonitis

Genitourinary

Urinary tract infection including pyelonephritis
Ovarian Torsion
Nephrolithiasis

Metabolic/Toxic

Drugs-including pregnancy vitamins
Use and/or withdrawal of cannabinoids or other illicit drugs
Diabetic ketoacidosis
Addison's disease
Thyrotoxicosis
Non-infectious hepatitis
Hypercalcemia
Eating Disorders

Central-nervous system disease

Migraine
Infection
Tumours
Raised intracranial pressure
Vestibular system pathology: labyrinthitis, Meniere's

SOMANZ Guideline for the Management of Nausea and vomiting in pregnancy and hyperemesis gravidarum. Society of Obstetric Medicine of Australia and New Zealand (2019)

APPENDIX 2.

SOMANZ
SOCIETY OF OBSTETRIC MEDICINE OF AUSTRALIA AND NEW ZEALAND

Sickness and Vomiting in Pregnancy
Patient information

Many pregnant women feel sick (nausea) or vomit during early pregnancy. This can vary from mild when it can be considered a normal part of pregnancy. If you can continue to eat and drink even with the sickness, this is considered reasonably normal. The exact cause of the sickness is not known but is probably due to the hormonal changes of early pregnancy.

It can occur more commonly in some families (genetic tendency), if you have twins or triplets, if your baby is a girl and if you had sickness and vomiting in your previous pregnancies. We do not really understand why some women suffer more, but the most important thing to know is that it is not your fault and it doesn't mean there is anything wrong with your pregnancy.

In this leaflet we answer some common questions about nausea and vomiting in pregnancy and provide some guidance for where you can get more information and help if you need it.

Although it is often called morning sickness, symptoms can occur at any time - not just in the morning. It usually starts from the early part of pregnancy and settles between 12 and 16 weeks. Rarely, women have some sickness throughout their entire pregnancy.

Even mild sickness and vomiting in pregnancy can be difficult to cope with. It can affect your mood, your work, your home situation, and your ability to care for your family. If sickness and vomiting are really interfering with your life, particularly your ability to eat and drink, you should seek help from your doctor or midwife.

What is hyperemesis gravidarum?

If you have severe sickness and vomiting for more than a few days, you may find it hard to drink anything leading to dehydration (lack of fluid in your body) and difficulty eating enough food, causing weight loss and vitamin deficiencies. This severe sickness and vomiting in pregnancy is known as hyperemesis gravidarum.

If you have these symptoms, even for more than a few days, you need urgent, expert medical help. Treatment is effective and protects you and your baby from complications. You should see your family doctor (GP), obstetrician or attend the Emergency Room at your local hospital for advice and help.

Do sickness and vomiting affect the baby?

Not usually. The baby gets nourishment from your body's reserves even though you may not eat well when you are vomiting. The effort of retching and vomiting does not harm your baby. In fact, some studies have shown that having sickness and vomiting in early pregnancy is a good indication that your pregnancy is healthy and will have a successful outcome.

Your baby may be affected if you develop hyperemesis gravidarum and become very ill with lack of fluid in the body (dehydration) which is not treated. In this case, the most likely problem is that your baby will have a low birth weight when he or she is born. However, not all babies born to women with hyperemesis gravidarum have a low birth weight.

Do I need any special tests?

If you have mild feelings of sickness (nausea) and vomiting during pregnancy, you do not usually need any specific tests or investigations.

Sometimes your doctor or midwife will suggest some tests:

- If your symptoms become more severe.
- If you are not able to keep any food or fluids down.
- If you start losing weight.

Investigations may include blood or urine tests to look for another cause for your nausea and vomiting or to check how your body is coping.

What can I do to help relieve sickness and vomiting?

In most cases, as the symptoms are often mild, no specific treatment is needed. However, there are certain things that you may like to try to help relieve your symptoms. They include the following:

- Eating small but frequent meals may help. Some people say that sickness is made worse by not eating anything at all. If you eat some food regularly, it may help to ease symptoms. Eat whatever you can, when you can. Do not worry too much about a balanced diet at this time. There may be some foods you really want and others you cannot stand. Cold meals may be better if nausea is associated with food smells.
- Ginger. Some studies have shown that taking ginger tablets or syrup may be effective for relieving feelings of sickness (nausea) and vomiting in pregnancy. However, care should be taken, as the quality of ginger products varies. Before you take a ginger product, you should discuss this with a pharmacist, midwife, or GP. Food containing ginger may also help.
- Avoiding triggers. Some women find that a trigger can set off the sickness. For example, a smell or emotional stress. If possible, avoid anything that may trigger your symptoms.
- Having lots to drink to avoid lack of fluid in the body (dehydration) may help. Drinking little and often rather than large amounts may help to prevent vomiting. Try to aim to drink at least one to two litres of some sort of fluid each a day.

- Rest. Make sure that you have plenty of rest and sleep in early pregnancy. Being tired is thought to make nausea and vomiting during pregnancy worse.

Note: generally, you should not use over-the-counter remedies for sickness and vomiting whilst you are pregnant unless recommended by your doctor, midwife, or pharmacist.

When are anti-sickness medicines needed?

Anti-sickness medicine may be necessary and recommended if your symptoms are persistent and severe, or do not settle with the above measures. Although it is generally recommended to avoid medicines when you are pregnant, certain medicines have been used for a number of years to treat feelings of sickness and vomiting in pregnancy and are considered safe. Some of the more commonly used medicines are pyridoxine (vitamin B6), doxylamine, promethazine, cyclizine and prochlorperazine and there is no evidence that they harm a developing baby. If these are not helpful, metoclopramide, ondansetron, famotidine/nizatidine and sometimes prednisolone may be used.

Always discuss with your doctor, community pharmacist or midwife before taking an anti-sickness medicine when you are pregnant.

They should inform you about any possible concerns regarding using medicines for sickness and vomiting during pregnancy. Feel free to ask them any questions you have before taking medicine in pregnancy.

It is best to use medication for the shortest time possible. For some women, medication may be needed for several weeks or even months until symptoms settle.

What if these treatments do not work very well?

A small number of women need to be seen at the hospital or Day Hospital facility to be given fluids by a drip. Admission to Hospital is sometimes needed if you do not respond to medication or cannot keep it down. You may need to be admitted to hospital if you lose weight or cannot keep enough fluid down and become too dry (dehydrated).

Other causes of vomiting

Remember, not all vomiting may be due to the pregnancy. You can still get other illnesses such as a tummy bug (gastroenteritis) or food poisoning. Sometimes a bladder or kidney infection can cause vomiting in pregnancy. You should see a doctor urgently if you develop any symptoms that you are worried about, particularly any of the following symptoms:

- Very dark urine or not passing any urine for more than eight hours.
- Stomach pains.
- High temperature (fever).

- Pain on passing urine.
- Headache not responding to paracetamol.
- Runny stools (diarrhoea).
- Yellow skin (jaundice).
- Severe weakness or feeling faint.
- Blood in your vomit.
- Repeated, unstoppable vomiting.

Where can I get more information?

The following sites may be helpful if you want more information or support:

- SOMANZ Guideline for the management of nausea and vomiting in pregnancy. https://www.somanz.org/Index.asp
- Hyperemesis Gravidarum Australia: https://www.hyperemesisaustralia.org.au
- Pregnancy Sickness Support UK: https://www.pregnancysicknesssupport.org.uk/
- *American College of Obstetrics and Gynecology: Morning Sickness: Nausea and Vomiting of Pregnancy: https://www.acog.org/Patients/FAQs/Morning-Sickness-Nausea-and-Vomiting-of-Pregnancy*
- Various online forums and blogs are available for women to share their experiences. We cannot recommend individual sites as they do not contain supervised content.

Appendix 3.

Sickness in Pregnancy Plan

Date: _____

Doctor: _____

Contact: _____

Patient Label

My medications for sickness, vomiting and acid reflux				
	Morning	Middle of day	Evening	Bedtime
For sickness or dry heaves (nausea or vomiting or retching)				
For stomach acid (reflux)				
For constipation				
Other				

If you feel worse:

_____

_____

_____

If you feel better:

_____

_____

_____

Would you like to tell us how you're going?

Eating and drinking:

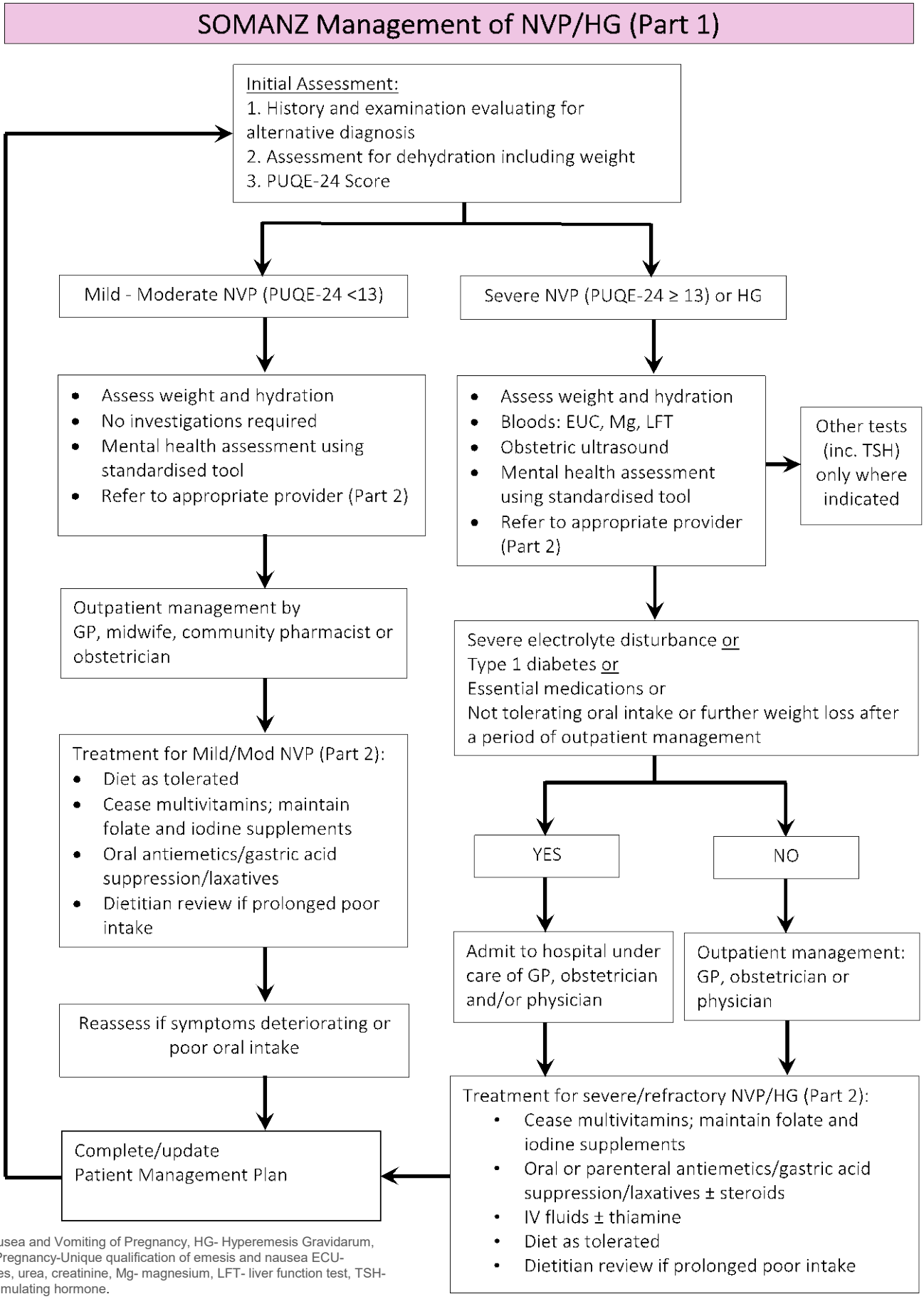
Work or study:

Family:

Mood:

Did you have drip (IV) fluids this week? If so, when? Did it help?

APPENDIX 4



NVP- Nausea and Vomiting of Pregnancy, HG- Hyperemesis Gravidarum, PUQE - Pregnancy-Unique qualification of emesis and nausea ECU- electrolytes, urea, creatinine, Mg- magnesium, LFT- liver function test, TSH- thyroid stimulating hormone.

Appendix 5 SOMANZ Management of NVP/HG (Part 2)

	MILD PUQE-24: <7	MODERATE NVP (PUQE-24: 7-12)	SEVERE NVP (PUQE-24: 13) or HG Outpatient management	REFRACTORY SYMPTOMS or in HOSPITAL
General	Diet as tolerated Cease multivitamins (particularly those containing iron); maintain folate and iodine supplements If an antiemetic is ineffective, at maximal dose, discontinue before commencing an alternate agent. If an antiemetic is partially effective, optimise dosage and timing, and only add additional agents after maximal doses of the first agent have been trialled. Add laxatives as required (eg docusate 120 mg 1-2 BO with or without macrogol containing laxatives 1-2/daily)			
Investigations	Nil	Nil	Electrolytes, LFTs: repeat if persistent vomiting or requiring repeated IV fluids TSH if clinically indicated Obstetric US	Repeat electrolytes, LFTs if persistent vomiting or requiring IV fluids
Medications	Pyridoxine 10-50 mg QID PO or Ginger 200-600 mg TDS PO or Ginger plus Pyridoxine PO	One of the following PO up to TDS. Metoclopramide* 10 mg Prochlorperazine* 5 mg Doxylamine* 6.25-25 mg Promethazine* 25 mg or Ondansetron 4-8mg To avoid sedation and for prolonged use ie more than 5 days, preferentially use ondansetron during the day	Ondansetron 4-8 mg PO/IV BD-TDS and Consider night time dosing with either: Metoclopramide* 10 mg PO/IV or Prochlorperazine* 5-10 mg PO/IV or Doxylamine* 6.25-25 mg PO or Cyclizine 12.5 -50 mg PO/IV and Consider prednisone: commence 40-50mg OD or hydrocortisone 100mg IV BO and wean prednisone over 7-10 days to minimal effective dose. May need to continue until symptoms resolve.	As for severe NVP/HG Convert to parenteral: IV/IM or subcutaneous treatment if not tolerating oral Convert back to oral equivalent when suitable.
Additional treatment		H2 antagonist PO BD eg nizatidine 150mg or famotidine 20mg IV fluids 1-3 x per week as required	Cease H2 antagonist and substitute PPI PO BD eg rabeprazole 20 mg IV fluids 1-3 x per week as required: add IV thiamine if poor oral intake or administering dextrose.	Continue PPI PO or IV if not tolerated. Continuous IV fluid and electrolyte replacement. Add IV thiamine if poor oral intake or administering dextrose Consider total parenteral nutrition
Treatment supervision and site	GP, midwife, obstetrician or community pharmacist Outpatient	GP or obstetrician Outpatient/Day Stay/Emergency Room	Obstetrician and/or physician Outpatient/Day Stay/Emergency Room	Obstetrician and physician Admit to hospital

OD: once a day, BD: twice a day, TDS: three times a day, QID: four times a day, PO: oral, IV: intravenous, H2: histamine 2, PPI: proton pump inhibitor, TSH: thyroid stimulating hormone, Electrolytes: sodium, potassium, chloride, bicarbonate, magnesium, urea, creatinine, LFTs: Bilirubin, Alanine Transaminase Aminotransferase, Albumin. NVP- Nausea and Vomiting of Pregnancy, HG- Hyperemesis Gravidarum, PUQE - Pregnancy-Unique qualification of emesis and nausea