Royal Hospital for Women (RHW) BUSINESS RULE COVER SHEET



Ref: T23/70498

	Not. 120/10400
NAME OF DOCUMENT	Hyperemesis gravidarum (hg) and nausea and vomiting in pregnancy (NVP) - management
TYPE OF DOCUMENT	Clinical Business Rule
DOCUMENT NUMBER	RHW CLIN011
DATE OF PUBLICATION	20 October 2023
NATIONAL STANDARDS	 Standard 8 – Recognising and responding to Clinical Deterioration Standard 5 - Comprehensive care Standard 4 - Medication Safety Standard 2 - Partnering with Consumers
RISK RATING	Medium
REVIEW DATE	Oct 2026
FORMER REFERENCE(S)	NSW Health - Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum GL2022_009
EXECUTIVE SPONSOR	Medical Co-director of Maternity Services
AUTHOR	A/Professor H. Barrett Obstetric Medicine Consultant I. Khan Clinical Midwifery Consultant Hyperemesis Gravidarum SESLHD
SUMMARY	Assessment, Management, treatment and support for Nausea and Vomiting of Pregnancy, and Severe Nausea and Vomiting of Pregnancy – Hyperemesis Gravidarum.







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

RHW CLIN011

This Clinical Business Rule is developed to guide safe clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this Clinical Business Rule. Using this document outside the Royal Hospital for Women or its reproduction in whole or part, is subject to acknowledgement that it is the property of the Royal Hospital for Women and is valid and applicable for use at the time of publication. The Royal Hospital for Women is not responsible for consequences that may develop from the use of this document outside The Royal Hospital for Women.

1. BACKGROUND

1.1 Definitions

- NVP Nausea and vomiting of pregnancy: nausea, vomiting and/or dry retching, commencing in early pregnancy, without another cause and is not classified as HG
- HG Hyperemesis Gravidarum: Characterised by severe nausea and/or vomiting with symptoms commencing in early pregnancy, before a gestational age of 16 weeks, leading to inability to eat and/or drink normally, strongly limiting daily activities with or without dehydration and/or electrolyte abnormalities²

Nausea and vomiting in pregnancy is estimated to occur in 69 per cent of pregnancies⁸. HG is a severe form of nausea and vomiting in pregnancy that affects approximately 1.1 per cent of pregnancies and is the main cause of hospitalisation in the first half of pregnancy⁸. HG can cause significant emotional, psychological, physical and financial distress for a woman and her family.

Appropriate assessment and management of a woman with nausea and vomiting in pregnancy, or HG is an integral part of providing holistic pregnancy care

2. RESPONSIBILITIES

2.1 Medical staff:

 Assess, prescribe medication/fluids, review physical and psychosocial wellbeing and refer to necessary services

2.2 Midwifery and nursing staff:

 Assess, administer medication/fluids, review physical and psychosocial wellbeing and escalate when needed

2.3 Dietician:

o Provide appropriate nutritional management

2.4 Social Worker:

Support and assess needs of woman for community/non clinical supports

2.5 Perinatal mental health team:

o Provide psychological support, referral and treatment as appropriate

3. PROCEDURE

3.1 Clinical Practice

This CBR is to be used in the following settings:

- General practice (GP)
- Emergency department (ED)
- Early pregnancy assessment service (EPAS)



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

RHW CLIN011

- o Maternity outpatient/antenatal clinic
- Pregnancy Day Stay Unit (PDSU)
- Hospital in the home (HITH)

3.1.1 Assessment

- Take a detailed obstetric and medical history
- · Confirm details of current pregnancy including:
 - o gestational age
 - o investigations and ultrasounds to date
- Complete medical and obstetric history including:
 - o onset and pattern of nausea and vomiting
 - o fluid and dietary intake
 - o exacerbating factors e.g. multivitamin use
 - current NVP/HG management (if any)
 - weight loss
- Use the 'Motherisk' Pregnancy-Unique Quantification of Emesis and Nausea (PUQE-24) scoring table (Table 1) to correctly classify the degree of nausea and vomiting:

Mild: PUQE-24: 4-6
 Moderate: PUQE-24: 7-12
 Severe: PUQE-24: ≥13

Table 1: Motherisk PUQE-24 scoring system²

1. In the last 24 hours, for how long have you felt nauseated or sick to your stomach?								
Not at all	1 hour or less	2-3 hours	4 to 6 hours	More than 6 hours				
(1)	(2)	(3)	(4)	(5)				
2. In the last 24 hours,			•	7				
I did not throw up	1 to 2	3 to 4	5 to 6	7 or more times				
(1)	(2)	(3)	(4)	(5)				
3. In the last 24 hours,	how many times	have you had	d retching or dr	y heaves without				
throwing up?								
None	1 to 2	3 to 4	5 to 6	7 or more times				
(1)	(2)	(3)	(4)	(5)				

3.1.2 Clinical Examination

- Perform an A-I assessment including measuring weight and assessing postural drop in blood pressure
- Assess hydration status and fluid deficit including decreased skin turgor, dry mucous membranes, decreased urine output and concentrated urine. The physical examination should be directed towards identification of alternate diagnoses (see appendix 1)

3.1.3 Management

- Assess woman using PUQE-24 score at every point of contact (GP, ED, outpatient clinic) from 4-16 weeks gestation. After 16 weeks gestation a woman should be assessed as per clinician judgment
- Aim to manage the woman with PUQE-24 score ≤12 in the community by referring to Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum (nsw.gov.au) for non-pharmacological and oral pharmacological treatments (Appendix 3.2 'Prescribing Summary' of Guideline)
- Refer woman scoring PUQE-24 ≥13 to PDSU by calling 9382 6417 in hours to book, if out of hours refer to ED. Women with a PUQE-24 score ≤13 may be referred to PDSU depending on clinical judgement



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

RHW CLIN011

- Ensure if arriving from the GP, ED or private obstetrician woman should have a referral letter.
 Woman may self-refer to PDSU if this is a subsequent visit (in the current pregnancy) and they have been given a referral letter previously
- Ensure any woman presenting to PDSU has an obstetric review
 - if booked under a private obstetrician may attend PDSU for HG management. In each instance the private obstetrician should be contacted and a collaborative management plan made
- Advise Obstetric Medicine clinic review for a woman who has attended PDSU:
 - o ≥ 3 times in 1 week
 - o 4 times in 2 consecutive weeks
 - With ongoing presentations needing Intravenous (IV) fluid therapy for more than 4 weeks
 - With first or on-going presentation > 16 weeks gestation
- Advise inpatient care for a woman who is unable to tolerate oral fluids/medications
- Consider HITH referral for woman requiring inpatient management or multiple appointments for IV fluid therapy (see <u>Prince of Wales Hospital Hyperemesis Gravidarum management – For use in Hospital in the Home (HITH)</u> for further guidance)
- Investigate a woman with a PUQE-24 ≥13 as per table 2
- Manage woman with IV fluid therapy as per table 3 below and medication management as per
 <u>Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum (nsw.gov.au)</u> (Appendix 3.2
 'prescribing summary', 3.3 'antiemetics and corticosteroids' and 3.4 'acid suppression medication' of
 Guideline)
- Refer to ED RHW flowchart (appendix 2) for a woman presenting to ED
- Provide woman with Hyperemesis gravidarum NSW Health factsheet hyperemesis-gravidarum.pdf (nsw.gov.au)
- Document an ongoing management plan for the woman using the NSW Health NVP & HG Care Plan (see appendix 3)
- Consider dietetic involvement for nutritional advice and commencement of enteral and parenteral feeding if needed
- Consider the most appropriate setting to deliver fluid resuscitation and antiemetic therapy including:
 - ο FΓ
 - o PDSU (9382 6417 Mon-Fri 0830-1630)
 - Inpatient (Antenatal Ward)
 - o HITH
- Consider inpatient management for a woman with:
 - o A PUQE-24 score of ≥13 and/or
 - Abnormal blood results
 - Concurrent co-morbidity (e.g. T1DM, Epilepsy, Transplant patient/user of essential medications)
 - Inability to tolerate oral fluids/ medications
 - o Any other condition where clinician recommends admission
 - Arrange early 'booking-in' appointment for a woman diagnosed with HG

3.1.4 Investigations

- Avoid investigations on the woman with a PUQE-24 ≤12 and where symptoms are not suspicious for HG or another diagnosis
- Perform investigations as per Table 2 for the woman with severe NVP (PUQE-24 ≥13) or suspected HG at first presentation only
- Daily monitoring (or more frequently if needed) of electrolytes is required for a woman with diabetes or other significant underlying conditions
- Arrange fetal growth surveillance in the third trimester of pregnancy for any woman with HG that continues past 16 weeks gestation

Table 2: Investigations for severe nausea and vomiting



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

RHW CLIN011

Indication	Investigations	Notes
Severe nausea and vomiting (PUQE score ≥13 or suspected hyperemesis gravidarum)	Pathology • EUC (sodium, potassium, chloride, bicarbonate, urea, creatinine) • CMP (calcium, magnesium, phosphate) • LFTs (bilirubin, alanine transaminase [ALT], aspartate aminotransferase [AST], albumin)	If requiring IV fluids for more than 24 hours – repeat electrolytes daily
	Obstetric ultrasound	Women with multiple pregnancy or gestational trophoblastic disease have an increased incidence of HG
Nausea and vomiting unresponsive to treatment Signs and/or symptoms of thyrotoxicosis (heat intolerance, palpitations, new anxiety, tremor, weight loss or lid lag)	Thyroid-stimulating hormone (TSH)	TSH <0.25 mIU/L is suggestive of thyrotoxicosis
Signs or symptoms of urinary tract infection	Midstream urine - microscopy and culture, including white cell count	White cell count is raised in pregnancy; up to 12.0x109/l. is normal

Beta human chorionic gonadotrophin (hCG) measurement is of no practical value for diagnosing or managing HG

Ketonuria is not reliably associated with either the diagnosis or severity of HG

3.1.5 Treatments

Non-pharmacological Treatments

- · Recommend modification of working patterns, exercise, daytime sleeps and earlier bedtime
- Advise woman to eat whatever and whenever they can to maintain nutrition and hydration
- Consider acupressure bands
- Encourage oral ginger
- Avoid iron-containing preparations

Pharmacological Treatments refer to appendix 3 of <u>NSW Health Guideline Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum</u> 'Medication Management'

Antiemetic therapy

o Individualise the antiemetic according to the woman's symptoms, previous response to treatment and potential side effects

Acid suppression therapy

- Treat all women with NVP or HG with antacids
- Treat women with severe NVP or HG with histamine 2 (h2) antagonists or proton-pump inhibitors (PPI)

Constipation management

- Prescribe laxatives to every woman with constipation or at risk of constipation
- Intravenous Fluid and Electrolyte Replacement

^{*}adapted from NSW nausea and vomiting in pregnancy and hyperemesis gravidarum GL2022_009



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

RHW CLIN011

- Treat the woman with dehydration or uncontrolled vomiting with IV fluids, prior to the development of electrolyte deficiency (see Table 3)
- Administer a dose of 100mg 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
- Arrange ongoing IV fluid therapy and antiemetic's for a woman with poor oral intake and/or continued nausea and vomiting despite antiemetic therapy as:
 - outpatient management in PDSU
 - inpatient management in ANW
 - community care in HITH

Table 3: Recommendations for IV fluids and electrolyte replacement

Table 3: Recommendations to		
Type of fluid	Quantity/Rate	Comments
0.9% sodium chloride (NaCL) or Hartmann's	1-2 L Initial rate up to 1L/hour	Further IV fluids should be given at a rate of 500ml – 1000ml/hour or slower to correct dehydration and electrolytes. Add IV thiamine (100 mg/day) if poor oral intake or administering intravenous glucose(see below)
4% dextrose and 0.18% sodium chloride or 5% dextrose	1 L Initial rate up to 1L/2 hours.	Consider this option if minimal oral intake, starvation, or uncontrolled nausea and only after correction of thiamine deficiency and exclusion of hyponatremia Add IV thiamine (100 mg/day) if poor oral intake or administering intravenous glucose
Add electrolytes as required		
Potassium chloride (KCI)	30mmol/L Maximum infusion rate 10mmol over 1 hour	Preferred product is premixed 30mmol KCI in 1 L bags of 0.9% NaCI. Administer as per local guidelines. For RHW see Potassium – Administration of Oral and Intravenous Infusion CBR. Administer with caution.
Magnesium sulphate (MgSO ₄)	10-20 mmol/day over 20-40 minutes	Administer as per local guidelines. For RHW see Magnesium Sulphate Intravenous Administration for Electrolyte Disturbance CBR

*adapted from NSW nausea and vomiting in pregnancy and hyperemesis gravidarum GL2022_009

3.1.6 Psychological/Community support

- Screen woman for mental distress and depression at first presentation
- Complete Edinburgh Postnatal Depression Scale (EPDS) (see appendix 4)
- Individualised assessment of the woman's psychosocial state is recommended. Repeat EPDS screening as necessary. For scores ≥13 consider perinatal mental health referral (appendix 5)
- Contact Social Work department (9382 6670) for a review if required. Social worker may attend to Nausea and Vomiting in Pregnancy Quality of Life form (NVP QoL, see appendix 6)
- Contact Perinatal Mental Health clinical midwife consultant (CMC) if there are significant concerns about the woman's mental health (ext.26337 or 0457 733 554)





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

RHW CLIN011

- Utilise available community supports, including ComPacks packages. These can be organised via Social Work. Eligibility criteria:
 - o Primary threshold

Evidence of HG as assessed by:

- Clinical judgement severe nausea and/or vomiting; symptoms start in early pregnancy (before 16 weeks gestation); inability to eat and/or drink normally; strongly limited daily activities; for some women – signs of dehydration and/or electrolyte abnormalities
- PUQE-24 score (between 13-15)
- Need for IV fluids
- NVP QoL (specific questions)
- Need for non-clinical support which is not available via alternate means (such as family)
- Secondary threshold

Women with PUQE-24 score of ~11 and other factors such as:

- Women with co-morbidities (physical and mental health)
- Women who live alone
- Other social situations as identified by Social Worker
- Significant risk of admission or re-admission

3.2 Documentation

- Medical record
- NSW health sickness in Pregnancy Plan

3.3 Educational Notes

- In a recent Australian observational study 72% of women reported NVP of which 42% had mild symptoms, 55% moderate and 1% severe³
- 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 a global meta-analysis, 24% of
 women described NVP even in late pregnancy and in approximately 10% of HG patients, symptoms
 persisted throughout pregnancy⁴. In another prospective recent study, only 50% of women reported
 relief of their symptoms by 14 weeks' although 90% had relief by week 20⁵
- 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. Methodology to support these hypotheses have been criticised²
- In women with HG or severe NVP, studies have suggested a higher incidence amongst first degree relatives ^{6, 7} and therefore the condition may be linked to a genetic origin^{8.}
- Many women with vomiting in pregnancy experience symptoms of gastroesophageal reflux and the presence of such symptoms is associated with more severe NVP².
- 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 malformations²
- There is inconsistent evidence regarding the risk of congenital malformation with the use of ondansetron and corticosteroids in the first trimester²:
 - o Ondansetron is therefore recommended for second line use





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

RHW CLIN011

- Corticosteroids have generally been used after other antiemetic therapies have failed or are inappropriate and should be reserved for more severe NVP or HG
- In severe cases, if antiemetic and steroid therapy has failed, nutritional support via enteral or
 parenteral routes may be required. Enteral nutrition would preferentially be recommended over total
 parenteral nutrition (TPN). Women commencing enteral or parenteral nutrition are at high risk of
 refeeding syndrome and need to be monitored closely, with a slow introduction of supplementation⁹
- Women with HG were found to have high rates of post-traumatic stress disorder, with several
 associated negative outcomes including inability to breastfeed, marital problems, financial problems,
 and inability to self-care². 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 family²
- Women who are diagnosed with HG have higher chance of being diagnosed with preeclampsia, deep vein thrombosis or anaemia¹⁰. HG has also been associated with an increased risk of preterm birth and an increased risk of small for gestational age (SGA) neonates¹¹
- 10% of women with a pregnancy complicated by HG will choose to terminate the pregnancy. These
 women would not have otherwise chosen this outcome if they did not have HG¹²

3.4 Implementation, communication and education plan

The revised CBR will be distributed to all medical, nursing and midwifery staff via @health email. The CBR will be discussed at ward meetings, education and patient quality and safety meetings. Education will occur through in-services, open forum and local ward implementation strategies to address changes to practice. The staff are asked to respond to an email or sign an audit sheet in their clinical area to acknowledge they have read and understood the revised CBR. The CBR will be uploaded to the CBR tab on the intranet and staff are informed how to access

3.5 Related Policies/procedures

- Diabetes Management of Pre-Gestational Diabetes in Pregnancy Policy SESLHDPD/283
- Diabetes Gestational Diabetes Mellitus (GDM) Screening and Management Policy SESLHDPD/282
- Estimated Due Date (EDD)
- Early Pregnancy EPAS Management of women with problems in early pregnancy
- Enteral (Nasogastric Tube) Feeding
- Hyperemesis Gravidarum Management For Use in Hospital in the Home (HITH) POWH CLIN196
- Magnesium Sulphate Intravenous Administration for Electrolyte Disturbance
- Potassium Administration of Oral and Intravenous Infusion
- Parenteral Nutrition Adult

3.6 References

- 1. T. R. Finarson, C. Piwko and G. Loren, "Quantifying the global rates of nausea and vomiting of pregnancy: A meta analysis." J Pop Ther Clin Pharmacol., vol. 20, no. 2, e.171-81, July 2013.
- 2. Lowe SA, Bowyer L, Beech A, Robinson H, Armstrong G, Marnoch C, Grzeskowiak L. SOMANZ Guideline for the Management of Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum. Society of Obstetric Medicine of Australia and New Zealand (2019). Available online https://www.somanz.org/content/uploads/2020/07/NVP-GUIDELINE-1.2.20-1.pdf
- 3. Tan A, Lowe S, Henry A. Nausea and vomiting of pregnancy: Effects on quality of life and day-to-day function. Aust N Z J Obstet Gynaecol. 2018;58:278-90.
- 4. Einarson TR, Piwko C, Koren G. Quantifying the global rates of nausea and vomiting of pregnancy: a meta analysis. J Pop Ther Clin Pharmacol. 2013;20(2):e171-83.
- 5. Jarvis S, Nelson-Piercy C. Management of nausea and vomiting in pregnancy. BMJ. 2011 Jun 17;342(jun17 1):d3606–6.
- 6. Zhang Y, Cantor RM, MacGibbon K, Romero R, Goodwin TM, Mullin PM, Fejzo MS. Familial aggregation of hyperemesis gravidarum. Am J Obstet Gynecol. 2011 Mar;204(3):230.e1-7



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

RHW CLIN011

- 7. Fejzo MS, Ingles SA, Wilson M, Wang W, MacGibbon K, Romero R, Goodwin TM. High prevalence of severe nausea and vomiting of pregnancy and hyperemesis gravidarum among relatives of affected individuals. Eur J Obstet Gynecol Reprod Biol. 2008 Nov;141(1):13-7
- 8. Fejzo MS, MacGibbon KW, First O, Quan C, Mullin Patrick M. Whole-exome sequencing uncovers new variants in *GDF15* associated with hyperemesis gravidarum. BJOG: An International Journal of Obstetrics & Gynaecology. 2022 Mar 16;129(11):1845–52
- 9. Majumdar S, Dada B. Refeeding syndrome: a serious and potentially life-threatening complication of severe hyperemesis gravidarum. J Obstet Gynaecol. 2010;30(4):416-417
- Fiaschi L, Nelson-Piercy C, Gibson J, Szatkowski L, Tata LJ. Adverse Maternal and Birth Outcomes in Women Admitted to Hospital for Hyperemesis Gravidarum: a Population-Based Cohort Study. Paediatric and Perinatal Epidemiology. 2017 Oct 6;32(1):4–51.
- 11. Sert ZS. The Effect of Hyperemesis Gravidarum on Pregnancy Outcomes. Journal of Contemporary Medicine [Internet]. 2021 Jul 31;11(4):428–32. Available from: https://dergipark.org.tr/en/pub/jcm/issue/61403/870631
- 12. Royal College of Obstetricians and Gynaecologists., "The Management of Nausea and Vomiting of Pregnancy and Hyperemesis Gravidarum: Green-top Guideline No. 69." RCOG, June 2016. [Online]. Accessed 6 June 2022. Available: https://www.rcog.org.uk/media/y3fen1x1/gtg69-hyperemesis.pdf

4. CULTURAL SUPPORT

- When clinical risks are identified for an Aboriginal woman, she may require additional supports. This
 may include Aboriginal health professionals such as Aboriginal liaison officers, health workers or
 other culturally specific services.
- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- If the woman is from a non-English speaking background, call the interpreter service: <u>NSW Ministry</u> of Health Policy Directive PD2017_044-Interpreters Standard Procedures for Working with Health Care Interpreters.

5. REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval			
Reviewed and	Endorsed 18 October 2023 RHW SQC Reviewed and endorsed Maternity Services LOPs 6/8/20				
	ity & Patient Saf	ety Committee 20/6/13 18/6/13			



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

RHW CLIN011

Appendix 1.

Differential diagnosis of nausea and vomiting in pregnancy (NVP)

Differential diagnoses of nausea and vomiting in pregnancy							
	More common	Less common					
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 torsionNephrolithiasis					
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 					

^{*}adapted from NSW nausea and vomiting in pregnancy and hyperemesis gravidarum GL2022_009

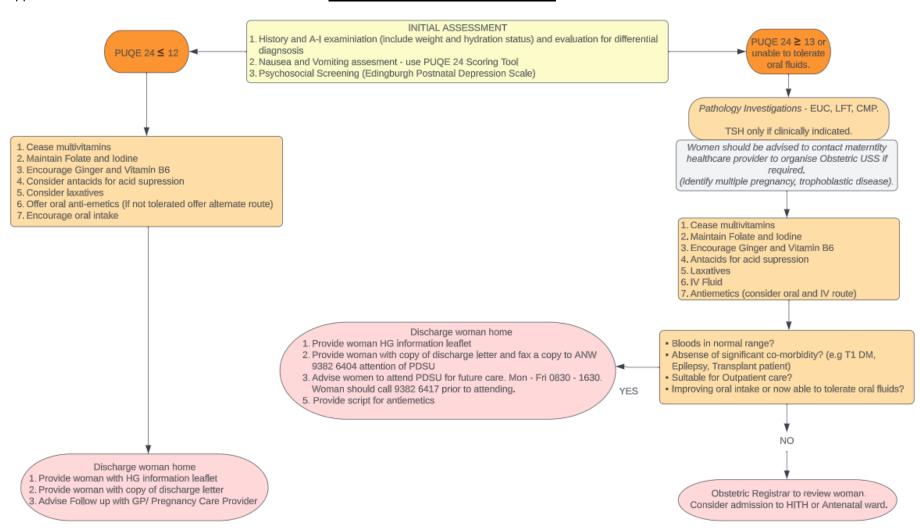


HYPEREMESIS GRAVIDARUM (HG) AND NAUSEA AND VOMITING IN PREGNANCY (NVP) - MANAGEMENT

RHW CLIN011

Appendix 2.

Management in POWH ED flowchart





HYPEREMESIS GRAVIDARUM (HG) AND NAUSEA AND

RHW CLIN011

VOMITING IN PREG	NANCY (NVP) - I	MANAGEMENT		02
Appendix 3.				
		Care Plan		
Nausea :	and vomiting in	pregnancy and H	lyperemesis gravio	larum
Date:				
My care providers (n	names/roles/conta	ct numbers):		
			Patient la	bel
Next clinical review:				
		My medications		
Medication	Morning	Middle of day	Evening	Bedtime
For nausea, vomiting	g or retching		'	
For stomach acid (re	eflux)			
For constipation				
Others (including vita	amins and minera	ls)	'	
If I feel worse, I cou	ıld try:		'	
If I feel better, I cou	ıld try:			



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

RHW CLIN011

Appendix 4.

Edinburgh Depression Scale - EDPS

For multi-language and English versions click -> Edinburgh Postnatal Depression Scale (EPDS) Scoring

This 10 item questionnaire is designed to screen women for symptoms of emotional distress during pregnancy and the postnatal period.

QUESTIONS 1, 2, & 4 are scored 0, 1, 2 or 3 with top box scored as 0 and the bottom box scored as 3. QUESTIONS 3, 5-10 are reverse scored, with the top box scored as a 3 and the bottom box scored as 0.

- 1			
ı	NSW Health	GIVEN NAME	☐ MALE ☐ FEMALE
r	Facility:	D.O.B// M.O.	
		ADDRESS	
	THE EDINBURGH DEPRESSION	-	
	SCALE (ANTENATAL)	LOCATION	
	As you are about to have a baby we would like which comes closest to how you have felt IN T already completed.:	to know how you are feeling. Please tic HE PAST 7 DAYS, not just how you feel	k the box of the answer
	I have felt happy		
	☐ Yes, all the time ☑ Yes, most of the time		
	□ No, not very often □ No, not at all		
	This would mean: "I have felt happy most of the tir	me" during the past week. Complete the oth	ner questions in the same way.
	I have been able to laugh and see the funny sthings:		
	☐ As much as I always could		haven't been able to cope at a
	☐ Not quite so much now		n't been coping as well as usua
	Definitely not so much now	□ No, most of the time I h	
	☐ Not at all	☐ No, I have been coping	g as well as ever
	2. I have looked forward with enjoyment to thin		that I have had difficulty
	As much as I ever did	sleeping:	
	Rather less than I used to	Yes, most of the time	
	☐ Definitely less than I used to	☐ Yes, sometimes	
	☐ Hardly at all	☐ Not very often	
		☐ No, not at all	
	I have blamed myself unnecessarily when thi went wrong:	ings 8. I have felt sad or misera	able:
	Yes, most of the time	Yes, most of the time	
	Yes, some of the time	Yes, quite often	
	☐ Not very often	☐ Not very often	
	☐ No, never	☐ No, not at all	
	4. I have been anxious or worried for no good r	eason: 9. I have been so unhappy	that I have been crying:
	☐ No, not at all	Yes, most of the time	
	☐ Hardly ever	Yes, quite often	
	☐ Yes, sometimes	Only occasionally	
	Yes, very often	□ No, never	
	5. I have felt scared or panicky for no very good		g myself has occured to me:
	☐ Yes, quite a lot ☐ Yes, sometimes	☐ Yes, quite often	
	☐ No, not much	☐ Sometimes ☐ Hardly ever	
	□ No, not at all	□ Never	
	Completed by Date		e for Question 10: / 3



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

RHW CLIN011

Appendix 5.

Perinatal Mental Health Referral



RHW & KARITANE RANDWICK PERINATAL MENTAL HEALTH CLINIC REFERRAL FORM FAX to: (02) 9382 6421

Please Fill in all Details & Attach completed EPDS & ANRQ August 2020 version

Referral Date:				
Name:	DOB:	MRN:		
Address:		Mobile #: _		
ANTENATAL / POSTNATAL* (circle) Gest	ation:	EDB:		
Infant age: Infant DOB:		Baby	born @ RHW YES/N	O (circle)
Referrer Name/Role/Service			Email:	
Reason for referral:				
EPDS score:; Q10: Date of EPDS: Past Mental Health History:	Ever se	en at RHW psychia	atry Clinic? YES/NO (
Current Mood Meds: (? recent changes)	Substance	use & Key Medical	/Obstetric history:	
GP details* (Name, address): Other health care providers:				_
Other nearth care providers.				

Clinic Referral Criteria:

ANTENATAL: Any woman birthing at RHW

POSTNATAL: up to 12 months postnatal AND living in Northern sector SESLHD



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

RHW CLIN011

Appendix 6.

Nausea and Vomiting in Pregnancy Quality of Life Questionaire

(to be attended by social work)

NVP QOL

Domains	30-Items	The following questions have been designed to find out how you have been feeling in the past week.	None of the time (1)	Hardly any of the time (2)	A little of the time (3)	Some of the time (4)	A good bit of the time (5)	Most of the time (6)	All of the time (7)
Physical symptoms and aggravating factors	Nausea	How often did you have nausea in the past week?							
Physical symptoms and aggravating factors	Vomiting	How often did you have vomiting in the past week?							
Physical symptoms and aggravating factors	<u>Dry-heaves</u>	How often did you have dry heaves in the past week?							
Physical symptoms and aggravating factors	Sick to your stomach	How often did you experience sickness to your stomach <u>in the</u> <u>past week?</u>							
Limitations	Took longer to get things done than usual	How often did it take you longer to get things done than usual as a result of your nausea, vomiting in pregnancy in the past week?							
Limitations	Difficult or took extra effort to perform, and/or limited in types of work and other activities	How often in the past week have you had difficulty or you have been limited or it has taken you extra effort to perform work and other activities as a result of your nausea, vomiting in pregnancy?							
Emotions	Downhearted, blue, sad, unhappy, depressed, gloomy	How often have you felt downhearted or blue as a result.							
Fatigue	Worn-out, lack of energy	How often in the past week did you feel worn out and had lack of energy as a result of your nausea, vomiting in pregnancy?							
Physical symptoms and aggravating factors	Poor appetite	How often in the past week did you have poor appetite as a result of your nausea, vomiting in pregnancy?							
Limitations	Difficulty maintaining your normal social activities with family, friends, neighbours, or social groups	10. How often in the past week have you had difficulty maintaining your normal social activities with family, friends, neighbours or social groups, as a result of your nausea, vomiting in pregnancy?							
Physical symptoms and aggravating factors	Symptoms worse in evening	How often in the past week did you experience nausea and vomiting in pregnancy in the evening?							
Emotions	Frustrated	12. How often have you felt frustrated as a result of your nausea, vomiting of pregnancy in the past week?							
Fatigue	Exhausted	13. How often did you feel exhaustion as a result of your nausea, vomiting of pregnancy in the past week?							
Limitations	Rely on your partner to do things that you would normally do for family	14. How often, as a result of your nausea and vomiting in pregnancy, in the past week have you had to rely on your partner to do things you would normally do for your family?							



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

RHW CLIN011

		partner to do things you would		T	
		normally do for your family?			
Emotions	Fed up with being sick	15. How often in the past week have you felt fed up with being sick as a result of your nausea, vomiting in pregnancy?			
Limitations	Difficulty looking after home	16. How often in the past week have you had difficulty looking after your home as a result of your nausea, vomiting in pregnancy?			
Limitations	Difficulty shopping for food	How often have you had difficulty shopping for food in the past week as a result of your nausea, vomiting in pregnancy?			
Fatigue	Tired	How often did you feel tiredness as a result of your nausea, vomiting in pregnancy in the past week?			
Physical symptoms and aggravating factors	Not eaten for longer than you would like	19. How often in the past week did you not eat for longer than you would like as a result of your nausea, vomiting in pregnancy?			
Emotions (Scoring reversed)	Reassured that your symptoms are part of normal pregnancy	How often in the past week did you feel reassured that your symptoms are part of normal pregnancy?			
Emotions	Less interested in sex	How often did you feel less interested in sex in the past week as a result of your nausea, vomiting in pregnancy?			
Fatigue	Fatigue	22. How often did you feel fatigue, as a result of your nausea, vomiting in pregnancy in the past week?			
Emotions	Emotional	23. How often have you felt emotional, as a result of your nausea, vomiting in pregnancy in the past week?			
Limitations	Accomplished less than you would like	24. How often in the past week have you felt that you have accomplished less than you would like, as a result of your nausea, vomiting in pregnancy?			
Limitations	Cut down on amount of time you spent at work or other activities	25. How often have you cut down on the amount of time you spent at work or other activities in the past week as a result of your nausea, vomiting in pregnancy?			
Physical symptoms and aggravating factors	Worse when exposed to certain smells	How often in the past week did you experience nausea and vomiting from being exposed to certain smells?			
Limitations	Everything is an effort	27. How often in the past week have you felt that everything is an effort, as a result of your nausea, vomiting in pregnancy?			
Emotions	Can't enjoy your pregnancy	28. How often have you felt that you can't enjoy your pregnancy, as a result of your nausea, vomiting of pregnancy in the past week?			
Physical symptoms and aggravating factors	Worse when exposed to certain foods	29. How often in the past week did you experience nausea and vomiting from being exposed to certain foods?			
Limitations	Difficulty preparing or cooking meals	30. How often in the past week have you had difficulty preparing or cooking meals as a result of your nausea, vomiting in pregnancy?			