

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> <li>Confirmed Diagnosis of Hyperemesis Gravidarum</li> <li>If the client has Diabetes Mellitus adequate diabetic control and no evidence of Diabetic Ketoacidosis</li> <li>See Hospital at Home Service Model CC-SD-002</li> </ul>	<ul style="list-style-type: none"> <li>Co-existing medical conditions requiring hospital admission</li> <li>Uncontrollable nausea and vomiting.</li> <li>Evidence of hypovolemic shock</li> <li>Evidence of life threatening electrolyte imbalance</li> <li>Acute disorders of pregnancy requiring specialist care</li> <li>Evidence of Vitamin B deficiency/ Wernicke's encephalopathy</li> </ul>

**PATHOLOGY WORK-UP**

- Baseline urea and electrolytes, full blood picture and magnesium.
- Mid Stream Urine for M C and S if urinalysis is positive for leucocytes/nitrites and no evidence of recent MSU (previous 72 hrs).

**Day 3 (and every 3<sup>rd</sup> day thereafter)**

Blood for urea and electrolytes, full blood picture and magnesium.

**TREATMENT REGIME**

- Access blood results for base line urea and electrolytes, full blood picture and magnesium from the referral source if unavailable organise domiciliary pathology visit within 24 hours for base line.
- Collaborate with Medical Governance Doctor regarding abnormal pathology results.
- Initiate intravenous access and commence intravenous therapy as prescribed.
- Commence antiemetic therapy and vitamin therapy as prescribed. (See Appendix 1)
- Minimum of daily visits.
- Nursing assessment as per Hyperemesis Gravidarum Assessment Tool.
- Use of PUQE assessment tool see client information leaflet.
- Intravenous therapy guided by the severity of the emesis, ketones value in urine, skin turgor, weight, vital signs and serum electrolytes.
- Administer prescribed intravenous therapy and intravenous antiemetics/vitamins (liaise with referral regarding supply of restricted antiemetic pharmaceuticals) (1).
- Monitor and advise client re dietary management (refer to dietician information sheet).
- Monitor and advise client on psychological wellbeing refer to other agencies if evidence of decompensating mental health.
- Monitor and advise client re oral medications and antiemetic regime.
- Discharge from HATH after minimum of 24 hours of minimal symptoms not requiring intravenous therapy.
- If condition worsens refer back to governance GP or referral hospital.

**Appendix 1**

Medications	Additional Information
Prescribe anti-emetics.	Anti-emetics appear to reduce the severity and frequency of nausea in the first trimester.
<b>1<sup>st</sup> line treatment includes</b> <ul style="list-style-type: none"> <li>• Stemetil (prochlorperazine).</li> <li>• Maxalon (metoclopramide).</li> <li>• These should not be administered more frequently than every 8 hours.</li> </ul>	These drugs may have side effects such as oculogyric crises and other extrapyramidal symptoms. This is particularly true if prescribing Maxalon to a teenager where symptoms may be exacerbated.
Consider prescribing antihistamines such as: <ul style="list-style-type: none"> <li>• Promethazine (Phenergan) to reduce nausea. Prescribe 8 hourly - in the interval between administration of the stemetil or maxalon.</li> </ul>	While not contra - indicated IV Promethazine may cause a transient drop in blood pressure.
Prescribe pyridoxine (vit. B6) 10-25mg tds.	In accordance with standard therapeutic practice, start treatment with the lower dose. Pyridoxine alone appears to be effective in reducing the severity of nausea and is less likely to produce side effects. Administration will also reduce the risk of Vitamin B6 deficiency. In combination with metoclopramide it appears to be superior to other monotherapy in the treatment of nausea and vomiting in pregnancy.
Consider prescribing Thiamine (Vit B1) 100mg.	There is a positive association between Wernicke's encephalopathy and hyperemesis gravidarum. Thiamine supplementation should be considered for women with prolonged vomiting – especially if they are given intravenous or parenteral nutrition.
Consider prescribing folic acid and other vitamins.	Folic Acid in the first trimester is associated with a reduction in neural tube defects.

**ONGOING MANAGEMENT**

Second Line Drug Therapy	
Commence anti emetics such as Ondansetron in case of <ul style="list-style-type: none"> <li>• More refractory vomiting.</li> <li>• Failure to improve.</li> <li>• Recurrent hospital admissions.</li> </ul>	Note: Anti reflux measures may also be useful. <ul style="list-style-type: none"> <li>• Ranitidine or proton pump inhibitor.</li> <li>• Elevate bed head.</li> <li>• Small frequent feeds.</li> <li>• Remain upright &gt;2 hours after eating.</li> </ul>

<b>Third Line Drug Therapy</b>	
Used Rarely – and only after consultation 20mg Prednisolone twice daily orally or 100mg Hydrocortisone IV twice daily.	While Promethazine reduces the symptoms of hyperemesis gravidarum faster than Prednisolone during prolonged treatment prednisolone has at least the same effects on the symptoms and less drug side effects.  Corticosteroid therapy has also been shown to lead to an improved sense of well being improved appetite and increased weight gain compared with placebo without significantly reducing vomiting or dependence on intravenous fluids.
<b>Parental Feeding</b>	
Consider parenteral feeding in extreme cases of intractable vomiting that does not respond to any of the above interventions indications are <ul style="list-style-type: none"> <li>• Weight loss.</li> <li>• Inability to tolerate oral feeding despite antiemetic treatment.</li> </ul>	Sometimes it is quite difficult for a client to eat with the burden of severe nausea and vomiting. Enteral feeding is an alternative approach after acute symptoms subside with initial therapy.

## REFERENCES

- 1 Women and Newborn Health Service King Edward Memorial Hospital Clinical Guideline Section C 9.6 Management in the home of Hyperemesis Gravidarum. November 2007.
- 2 Gideon Koren, Radinka Boskovic et al Motherisk -P.U.Q.E. (pregnancy – unique quantification of emesis and nausea) scoring system for nausea and vomiting of pregnancy. American Journal obstetric and gynaecology May 2002 olume 186 number 5 pages 228-31
- 3 eTG complete 2008. Therapeutic Guidelines limited. [Online].November 2008[2009 Aug 06]; Available from: URL: <http://etg.tg.com.au.rplibresources.health.wa.gov.au/ip/>