Vd. Management of Nausea and Vomiting of Pregnancy (NVP)/ Hyperemesis Gravidarum (HG) as an In-patient

Royal College of Obstetricians & Gynaecologists

Initial assessment

History:

- Previous history of NVP/HG ☐
- Ptyalism (hypersalivation) ☐
- Weight loss ☐
- Poor oral intake ☐
- Effect on quality of life ☐
- Effect on mental health/mood ☐

Consider other causes in those with:

- Abdominal pain ☐
- Urinary symptoms ☐
- Infective symptoms ☐
- Possible drug cause ☐
- Chronic H. pylori infection ☐

Examination:

Observations:

- Temperature ☐
- Heart rate ☐
- Blood pressure ☐
- Respiratory rate ☐

Physical examination:

- Signs of dehydration ☐
- Signs of malnutrition ☐
- Abdominal examination ☐
- Neurological signs ☐

Prescence of confusion, nystagmus or ataxia should raise suspicion of Wernicke's encephalopathy

Investigations:

- Urine dipstick +/- MSU *nitrites may indicate urinary tract infection* ☐
  NB. Ketones are not a marker of dehydration ☐
- Urea and electrolytes *to assess for hypo/hyperkalaemia, hyponatraemia, kidney injury* ☐
- Full blood count *infection, raised Hb or Hct may indicate dehydration* ☐
- Blood glucose *to assess for diabetes*

In refractory cases:

- Thyroid function tests ☐
- Liver function tests to exclude liver disease ☐
- Bone profile to monitor calcium and phosphate ☐
- Amylase to exclude pancreatitis ☐
- VBG to exclude metabolic disturbance ☐

Diagnosis and severity assessment

Document: PUQE score /15 Weight kg

Diagnosis:

NVP:

- onset of nausea and/or vomiting in early pregnancy with no other cause is identified ☐

HG:

- Nausea and vomiting (one of which is severe) ☐
- Onset <16 weeks' gestation ☐
- Inability to eat and drink normally ☐
- symptoms limit daily activity ☐

PUQE-24 scoring system:

In the last 24 hours:

How long have you felt nauseated or sick to your stomach for?	Not at all [1]	≤1h r[2]	2-3hrs [3]	4-6hrs [4]	>6hrs [5]
How many times have you vomited?	0x [1]	1-2x [2]	3-4x [3]	5-6x [4]	≥7x [5]
How many times have you had retching or dry heaves?	0x [1]	1-2x [2]	3-4x [3]	5-6x [4]	≥7x [5]

Admission criteria and management

Admit if any of the following:

- Any PUQE score plus:
- Unresponsive to outpatient management
- Clinical dehydration
- Inability to tolerate oral intake
- Weight loss >5% body weight
- Confirmed or suspected co-morbidity e.g. UTI or diabetes mellitus
- Co-morbidity and unable to take medications e.g. hypoadrenalism, epilepsy, psychiatric disorder and HIV

Inpatient management:

- Prescribe antiemetics IM or IV ☐
- Prescribe IV fluids: ☐
  - 0.9% saline with potassium chlorine guided by **daily monitoring of electrolytes** ☐
- Prescribe thiamine supplementation either: ☐
  - Thiamine 100mg TDS PO or Pabrinex® I+II (vial of each) IV ☐
- Prescribe venous thromboprophylaxis ☐
- Prescribe histamine type-2 receptor blockers or proton pump inhibitors in women with GORD ☐
- Undertake a mental health assessment +/- refer to mental health services ☐
- Schedule ultrasound scan to confirm viability, gestational age and to assess for trophoblastic disease or multiple pregnancy ☐
- Enquire regarding constipation and prescribe laxatives if required ☐
- Consider enteral or parenteral nutrition in cases where all other medical therapies have failed to sufficiently manage symptoms ☐

Antiemetic therapy

1st line Doxylamine and pyridoxine 20/20mg PO at night, increase to additional 10/10mg in morning and 10/10mg at lunchtime if required.
Cyclizine 50 mg PO, IM or IV 8 hourly
Prochlorperazine 5–10 mg 6–8 hourly PO (or 3 mg buccal) ; 12.5 mg 8 hourly IM/IV; 25 mg PR daily
Promethazine 12.5–25 mg 4–8 hourly PO, IM or IV
Chlorpromazine 10–25 mg 4–6 hourly PO, IM or IV

2nd line Metoclopramide 5–10 mg 8 hourly PO, IV/IM/SC
Domperidone 10 mg 8 hourly PO; 30–60 mg daily PR
Ondansetron 4 mg 8 hourly or 8 mg 12 hourly PO; 8 mg over 15 minutes 12 hourly IV; 16mg daily PR
Women taking ondansetron may require laxatives if constipation develops

3rd line Hydrocortisone 100mg twice daily IV; then convert to prednisolone 40–50 mg daily PO, with the dose gradually tapered until lowest maintenance dose that controls the symptoms is reached
Corticosteroids should be reserved for cases where standard therapies have failed; when initiated they should be prescribed in addition to previously started antiemetics. Women taking them should have their BP monitored and a screen for DM

On discharge

- Up titrate antiemetic therapy and reassure regarding safety ☐
- Encourage oral hydration ☐
- Offer dietary advice eat little and often to prevent an empty stomach ☐
- Provide contact number for early pregnancy unit ☐

Up titration of antiemetics

- Initially select a 1st line antiemetic
- Use combinations of drugs in women who do not respond to a single antiemetic
- When up titrating add drugs as opposed to replacing them

different classes of drugs may have synergistic effects and some women will require a combination of 3+ antiemetics to control symptoms

Post-partum care, planning for future pregnancy and signposting

- Patients with severe HG are risk of PTSD if required they should be referred to appropriate services
- In future pregnancy early use of lifestyle modifications should be used
- Pre-emptive use of doxylamine and pyridoxine can be used to reduce severity of disease in subsequent pregnancy 20/20mg PO at night to be started on confirmation of positive pregnancy test and up titrated when required

- Pregnancy Sickness Support
- HER Foundation
- UK Teratology Information Service
- Best use of medicine pregnancy