Vc. Management of Nausea and Vomiting of Pregnancy (NVP)/ Hyperemesis Gravidarum (HG) in the Emergency Department

Initial assessment

Confirm 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 ☐

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

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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* ☐
- Amylase *to assess for pancreatitis* ☐
- VBG *in severe cases to exclude metabolic disturbance* ☐

Assess mental health status: ☐ **if concerns refer to mental health services**

Severity assessment using PUQE-24 scoring system and management

Document: PUQE score /15

In the last 24 hours:

How long have you felt nauseated or sick to your stomach for?	Not at all [1]	≤1hr[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]

Management

Both:
- PUQE score 3-12 and
- No red flags

Discharge to community
- Start or 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 ☐
- Referral to perinatal mental health services where required ☐

Either:
- PUQE score ≥ 13 with no complications
- Inability to tolerate oral intake
- Community measures failed

Send to ambulatory unit if available or treat in emergency department
- Prescribe antiemetics IM or IV ☐
- Prescribe IV fluids: ☐
  - 0.9% saline +20mmol Kcl over 2 hours
- Thiamine supplementation either: ☐
  - Thiamine 100mg TDS PO
  - Pabrinex® I+II (vial of each) IV

Reassess

Any red flags:
- Any PUQE score + complications
- Inability to tolerate oral intake
- Unresponsive to outpatient management
- Clinical dehydration
- 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. epilepsy, HIV, hypoadrenalism or psychiatric disorders

Refer for inpatient management

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

For all patients consider:
- Histamine type-2 receptor blockers or proton pump inhibitors if women develop GORD (safe in pregnancy) ☐
- Thiamine supplementation in those with severely reduced dietary intake to prevent Wernicke's encephalopathy ☐
- Laxatives if required for constipation ☐
- VTE risk assessment (see RCOG risk assessment tool) ☐

Antiemetic therapy

1st line
Doxylamine and pyridoxine 20/20mg PO at night, increase to additional 10/10 mg in morning and 10/10 mg 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 mg 12 hourly 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
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

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