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Management summary for hyperemesis gravidarum

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Hyperemesis gravidarum and the liver

Does the patient meet the definition for HG?

- Symptom onset <16 weeks' gestation of pregnancy
- Nausea and vomiting; at least one of which is severe
- Inability to eat +/or drink normally
- Symptoms have significant effect on daily living

Is ALT or AST abnormal?

Yes

Marked abnormality in ALT/AST (≥5x upper limit of normal)

Screen for primary liver disease

Mild abnormality in ALT/AST

Reassure and treat as per usual management algorithm

No

Admission criteria and management

Admit if any of the following:

- 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, diabetes mellitus, HIV

In patient 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 50 mg 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
- 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 20/20 mg PO at night, increase to additional 10/10 mg in morning and add 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, IV or PR Chlorpromazine 10-25 mg 4-6 hourly PO, IV or IM; or 50-100 mg 6-8 hourly PR
2nd line	Metoclopramide 5-10 mg 8 hourly PO, IV/IM/SC Domperidone 10 mg 8 hourly PO; 30-60 mg 8 hourly PR Ondansetron 4-8 mg 6-8 hourly PO; 8 mg over 15 minutes 12 hourly IV 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.

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 synergisc effects and some women will require a combination of 3+ antiemetlcs to control symptoms

Patients with a history of severe HG may be offered doxylamine/pyridoxine preemptively. In such cases 20 mg of doxylamine combined with 20 mg of pyridoxine should be started on confirmation of pregnancy, with gradual increase of dose when symptoms occur/escalate to a maximum dose of 40/40 mg per day.

HG, hyperemesis gravidarum; ALT, alanine aminotransferase; AST, aspartate aminotransferase; UTI, urinary tract infection; HIV, human immunodeficiency virus; IM, intramuscular; IV, intravascular; TDS, three times a day; PO, orally; GORD, gastroesophageal reflux disease; PR, per rectum; SC, subcutaneous!

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