

# Hyperemesis Gravidarum Patient Protocol



## REHYDRATION

Banana Bag + Vit B6 + Vit B1

Myer's Cocktail + 1 ampule MVI

D5NS or D5LR + 1 ampule MVI + Vit B6 + Vit B1

\*Add as needed: Vit K, Vit D, zinc, selenium, iron, magnesium and calcium



## COMPASSIONATE CARE

Women with HG are miserable for months and their concerns and requests should be taken seriously. Every possible comfort measure should be taken to minimize unnecessary suffering. Compassionate and effective treatment prevents therapeutic termination, and influences if mother and baby will suffer from physical and psychological complications (e.g. organ damage, trauma) during pregnancy and long-term.



## ANTI-VOMITING MEDICATIONS

Start early if a history of HG and begin with a drug targeting the main triggers (e.g. motion). If numerous triggers, and/or more severe symptoms, consider serotonin antagonists (ondansetron/granisetron). Understand few meds help nausea. A medication combination may be needed throughout pregnancy. See medication list below. [\[2\]](#)



## PREVENT OR TREAT ADDITIONAL ISSUES

Issues: acid reflux, urinary infection, insomnia, helicobacter pylori infection, gall bladder & liver congestion

Medication side effects: severe constipation, serotonin syndrome, anxiety, headache, extrapyramidal symptoms



## UTILIZE HER FOUNDATION RESOURCES

Review HER Foundation brochures & information ([HelpHER.org/info](http://HelpHER.org/info)). Support & referral email: [GetHelpNow@HelpHER.org](mailto:GetHelpNow@HelpHER.org). Utilize HELP Score and HER HG Assessment & Management Clinical Tools ([HelpHER.org/tools](http://HelpHER.org/tools)).



YES

Is mother: Eating  $\leq 1$  meal per day? Dehydrated?  
Losing  $\geq 2$ lbs (1 kg)/week? Not responding to Rx?



NO

## HOSPITAL/ER CARE

- Weigh every 1-2 days.
  - Use comfort measures. [\[2\]](#)
  - Rehydration Recommendation: IV fluids + IV multivitamin + vitamins B1 & B6 IV + electrolytes
  - Ask about a midline IV OR central/PICC line.
  - Request a feeding tube or IV nutrition if you lose over 10% your body weight. [\[2\]](#)
  - Request labs: nutrition & metabolic panel, urinalysis
  - Ask about consults: Nutrition, Physical Therapy, GI, Home Health, Perinatolgy/Maternal Fetal Medicine
  - Return home when eating  $>1$  meal/day + drinking enough fluids OR you get nutritional therapy.
- Goal: HELP Score  $\leq 20$

## HOME CARE

- Weigh Monday/Wednesday/Friday.
- Complete HELP Score daily.
- Options: daily Enteral (NG/NJ or PEG/J) or Parenteral Nutrition (TPN/TPPN) or PICC/midline rehydration.
- Weekly labs for TPN: Comprehensive metabolic panel
- Continue until eating  $\geq 2$  meals/day + drinking enough fluids + gaining weight. Goal: HELP Score  $\leq 20$

[\[2\]](#) see page 2 for more detailed information

## OUTPATIENT CARE

### FIRST VISIT

- Discuss pregnancy history and symptoms in detail.
- Check for molar pregnancy, gall bladder & pancreatic disease, helicobacter pylori infection, hyperthyroidism.
- Labs: Urinalysis, hormone levels, comprehensive metabolic panel (CMP), thyroid panel

### ROUTINE CARE

- Do HELP Score daily & HER Assessment Form weekly.
- Try a prenatal vitamin with food or try an iron-free.
- Weigh yourself every 1-2 days when you wake up & call doctor if you lose  $\geq 2$  lbs (1 kg) in 1 week.
- Try to brush & floss daily (try a water flosser) & get a dental exam at least 1 time while pregnant.
- Rinse mouth with water after vomiting; wait 15 minutes then try brushing with water & baking soda.
- Watch for signs of Wernicke's encephalopathy. [\[2\]](#)
- Eat as healthy as you can; take 50 mg tablets daily of both vitamin B1 (thiamin) & vitamin B6 three times/day.
- Notify your doctor of medication side-effects, and if you are unable to keep your medications down.

### 2nd & 3rd TRIMESTER

- Labs: thyroid panel, iron
- Ask about using jelly beans/juice for Glucola (GTT) test

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## MEDICATION (RX) ESSENTIALS

- If medications are not working:
  1. Try changing dose/frequency.
  2. Try different routes: IV, subQ.
  3. Then add/replace a medication.
- Wean over 2-3 weeks when well.
- Prevent and treat side-effects.
- Combination: 1st level meds + 2nd level meds (e.g. Zofran + Phenergan)

## 1ST LEVEL MEDICATIONS

- Antihistamine
- Acid reducer (Zantac/ranitidine)
- Vitamins B1 & B6 50-150 mg/day
- Meds successful in previous pg

## 2ND LEVEL MEDICATIONS

- Metoclopramide/Reglan\* (5-10 mg)
- Proton pump inhibitors (Prevacid)
- Ondansetron/Zofran (≤ 32 mg/day), granisetron/Kytril (≤ 4 mg/day)
- Promethazine/Phenergan\* 12.5-25 mg up to every 4 hours
- Methylprednisolone (after 8 weeks)

## 3RD LEVEL MEDS/EXPERIMENTAL

**\*\* These medications may present a risk to mother or baby. Safety during pregnancy is not confirmed. \*\***

- Prochlorperazine/Compazine\*
- Benzodiazepines (e.g. Diazepam)
- Droperidol (Inapsine)\*
- Remeron (Mirtazapine)
- Gabapentin (Neurontin)
- Marijuana (or Dronabinol Rx)
- Clonidine (Transdermal)

\* Take with antihistamines for anxiety; monitor for extrapyramidal symptoms & neuroleptic malignant syndrome.

## BRAIN HEALTH ESSENTIALS

- Causes: Lack of thiamin (vitamin B1) & electrolytes, infection, diuretic Rx
- Signs: Changes in vision or speaking or walking or thinking, abdominal pain, severe headache, change in heart rate or rhythm, sleepiness, dizziness, weakness, inability to speak, shakiness, irritability, muscle spasms, seizure, muscle pain, lack of appetite, difficulty swallowing
- Prevention: Thiamin 50 mg 1-3 times a day (body stores deplete in 2 wks).
- Treatment: Thiamin 100 mg IV up to 500 mg/day until no more symptoms
- Diagnosed by MRI
- May cause serious long-term health issues for both mother and baby.
- May start quickly if you are given IV glucose or electrolytes.

WE = Wernicke's encephalopathy  
ODS = Osmotic Demyelination Syndrome

## IV NUTRITION ESSENTIALS

- Start slow & watch for symptoms of Refeeding Syndrome.
- Add MVI + B1 100 mg + B6 50 mg + Phosphorus + Mg + Vit D & K + Ca.
- Labs: Metabolic panel weekly
- Learn & carefully follow cleaning & dressing change instructions.
- ☑ Call doctor if you have chest pain, breathlessness, temp ≥ 101F (38.3C) or ≤ 96.8F (36C), redness/swelling.

## FEEDING TUBE ESSENTIALS

- Start slow & watch for symptoms of Refeeding Syndrome.
- NG/NJ: Use pediatric tube; slow rate

## COMFORT MEASURES

- Ask for private room (avoid stimuli).
- Avoid shots (due to muscle loss).
- Request warm IV fluids/blankets.
- Ask for lidocaine before IV insertion.
- Discuss possible midline/PICC IV.
- Eat preferred foods when least ill.

## CONSULTS/OTHER CARE

- Consults: GI, nutrition, home health, psychology (PTSD), perinatology/MFM
- Other care: hypnosis, acupuncture, homeopathy, massage, osteopathic manipulation, daily IV fluids

## KEY REMINDERS

- Daily checks: HELP Score, ketostix
- Call doc if HELP Score worsens
- ☑ Call doc if any red flag symptoms: blood in vomit/urine, rapid weight loss, changes in breathing or walking or vision or thinking, fever or chills, chest pain, sleepiness, no urine output, fainting, severe pain

## POSTPARTUM NEEDS

- Support for depression & trauma
- Continue B vitamins & prenatals
- Thyroid test; see ND or GI if nausea

## HG FACTS

- HG related genes: IGFBP7 & GDF15 & RYR2 (cyclic vomiting syndrome)
- Criteria for HG: dehydration, poor nutrition, weight loss, exhaustion
- May need referral to HG-friendly doc
- Possible Complications: muscle loss, throat damage, organ failure, inability to care for self/family, gall bladder congestion, fatty liver, brain disease, bleeding in the eyes, stomach ulcer or infection, premature labor & delivery, trauma, severe tooth damage, severe constipation, muscle cramping
- Child Outcome Risks if Severe HG: poor growth, sensory & developmental & behavioral problems, vitamin deficiencies, loss

## Kimber's RULE OF 2'S

Wean medications for HG:



Over 2+ weeks

+



After 2+ weeks  
without symptoms

+



In 2nd trimester  
or later