Hyperemesis Gravidarum Patient Treatment Overview

Patient Reference for HER Treatment Algorithm

HG symptoms are caused by multiple triggers, so multiple medications are usually needed.

Goals of treatment are to increase fluid and food intake and daily functioning.

Medications will not relieve all symptoms but should help you reach these goals.

Treatment steps build on each other. Start at Step 1 or 2, then consider adding medications as needed.

ⓘ HG is severe nausea and/or vomiting in pregnancy.

See HG Patient Treatment Guide for more detailed information.

⓪ Take only one medication from each category at a time.

⓪ DISCUSS THIS WITH YOUR HEALTHCARE PROVIDER BEFORE MAKING ANY CHANGES TO YOUR MEDICAL CARE. ⓪

This is not a substitute for a medical consultation. Medication use requires an assessment of risks and benefits. The medications in this Overview have low risk of fetal harm and benefits outweigh the risks in HG. Increasing medication dose is unlikely to increase risks but may increase side-effects.

STEP 1: PREP

3-6 months before conception.
Prepare with suggested supplements below.

Supplements

Consider taking all of the following:

1. **B Complex** twice daily (minimum 10 mg B1, 10 mg B6) or B-100 once daily
2. **Prenatal multivitamin** daily including minimum:
   - › Folic acid/folate 600 mcg
   - › Phosphatidylcholine 450 mg
   - › Iron 25 mg (ferrous bisglycinate often better tolerated).

» Take additional supplements as needed to reach above doses.

Optional Supplements

1. **Vitamin D with vitamin K** daily (minimum 1000 IU of D)
2. **Calcium with Magnesium Glycinate**, approximately 200 mg each, twice daily

ⓘ Important Information ⓪ Caution
Medications in *italics* are prescription only.

STEP 2: ONSET

Immediately upon onset of nausea and/or vomiting symptoms.
ⓘ Take vitamin B1 (**Benfotiamine**) 100 mg daily **AND** vitamin B6 100 mg daily, plus other supplements from Step 1 as tolerated.

Supplement Adjustments

If not tolerating supplements from Step 1, consider these daily:

1. Change to iron-free prenatal or take smaller amounts of prenatal multivitamin when manageable.
2. Add individual supplements to reach doses listed in Step 1: vitamin D drops or pills, phosphatidylcholine, iron, and folic acid.

ⓘ Daily vitamin B1 (**Benfotiamine**) is most important.

+ ADD

Acid reducer

Famotidine (Pepcid) 20-40 mg daily at bedtime if acid reflux symptoms

+ ADD

B6/Doxylamine

Consider **ONE** of these Vitamin B6 plus Doxylamine Combinations.

A. **Vitamin B6 (Pyridoxine)** 25 mg plus **Doxylamine (Unisom)** 12.5 mg every 6 hours **OR**
B. ***Diclegis/Diclectin*** Take three times daily (two pills before bed, one pill in morning, one pill in afternoon) **OR**
C. ***Bonjesta*** 20 mg twice daily (one pill in morning and one before bed)

» Continue B6 supplement up to 100 mg daily if tolerated.
» Each option has different effects and side-effects.

ⓘ If these are not available or tolerated, and/or symptoms do not improve, switch to one of the antihistamine options in Step 3.
⓪ Limit total amount of vitamin B6 to 150 mg per day.

HER Foundation
The global voice of HG
hyperemesis.org
info@hyperemesis.org
@HGmoms
@HGmoms
#Advocate4HER
facebook.com/HERFoundation
linkedin.com/company/herfoundation

STEP 3: MILD

If symptoms partly reduce food and fluid intake.

ⓘ Continue vitamin B1 (**Benfotiamine**) 100 mg daily plus other supplements as tolerated.

Option A: If symptoms are worsening rapidly and/or food or fluid intake is less than half of normal amount, continue **B6/Doxylamine** or switch to **ONE** antihistamine below and **MOVE** immediately to Step 4. ➔

Option B: If symptoms are mild and food/fluid intake is more than half of usual amount, but an alternate antihistamine is preferred, **STOP B6/Doxylamine** Combination and

1. Add **Famotidine (Pepcid)** 20 mg once or twice daily to prevent nausea and damage from vomiting, reflux, and acid irritation,
2. Increase **B6** supplement to 150 mg daily if tolerated, and
3. Add **ONE** of the following antihistamines:

Antihistamines

A. **Diphenhydramine (Benadryl)** 25–50 mg four times daily **OR**
B. **Dimenhydrinate (Dramamine / Gravol)** 25-50 mg four times daily **OR**
C. **Meclizine** 25 mg three times daily (*less drowsy*) **OR**
D. **Cyclizine** 25 mg three times daily

» Choose based on availability.
» Start with a lower dose and increase as needed.

HG Facts

» Symptoms may worsen throughout the first trimester, making it difficult to know how effective each medication is, so adding rather than changing medications is recommended.
» HG symptoms often continue until midpregnancy in 40% and until term in about 20%.

STEP 4: MODERATE TO SEVERE

If symptoms greatly reduce food and fluid intake.


oral dissolving tablets


subcutaneous infusion


transdermal patch


compounded medications

ⓘ Increase vitamin B1 **(Benfotiamine)** to 250 mg daily after 20 weeks pregnant and continue other medications and supplements as tolerated.
ⓘ If not tolerating or responding to medications in this step, request non-pill forms (oral dissolving, rectal, vaginal, transdermal patch, compounded, IV, or subcutaneous infusion by a pump).

+ ADD medications below as needed.

4A: Acid Irritation

Acid Blocker/PPI (Proton Pump Inhibitor) Options

Choose **ONE** based on availability.
STOP Acid Reducer (**Famotidine**)

A. **Esomeprazole (Nexium)** 20-40 mg **OR**
B. **Lansoprazole (Prevacid)** 15-30 mg (Available as ODT/oral dissolving tablet) **OR**
C. ***Pantoprazole (Protonix)*** 40 mg

» Take daily at bedtime even if no acid reflux.
» May take up to 3 days to reach full effectiveness.

ⓘ If PPI is not sufficient, acid reducer can be added in the morning with PPI at bedtime.
ⓘ Daily PPI is recommended to prevent nausea and damage from vomiting, reflux, and acid.

4B: Nausea

Dopamine Antagonists

A. For general nausea: ***Promethazine (Phenergan)*** 12.5-25 mg every 4-6 hours (pill, suppository) **OR**
B. If nausea/vomiting triggered by eating/fullness: ***Metoclopramide (Reglan)*** 5-10 mg before meals or every 6-8 hours (pill, oral dissolving, IV, subcutaneous). ⓘ If given by IV, infuse over 15+ minutes.

ⓘ These dopamine antagonists may not be taken simultaneously.
ⓘ Avoid taking for more than 12 weeks.
ⓘ Consider starting at a lower dose to minimize side-effects and increase dose if needed.

4C: Vomiting

Serotonin Antagonists

Take **ONE** serotonin antagonist.

A. ***Ondansetron (Zofran)*** 4-8 mg every 6 hours (pill, oral dissolving, ODT vaginal, IV) or subcutaneous
   ! Medication effects end after 6 hours. **OR**
B. ***Granisetron***:
   › ***Kytril*** 1 mg every 12 hours (pill, IV) **OR**
   › ***Sancuso*** patch (3.1 mg)

! Take on **a strict s**chedule.
i Each has different effects and side-effects.
i These are minimally effective for nausea.

+ ADD

Bowel Care

Use to prevent and treat constipation, especially when taking serotonin antagonists.

1. Take **ONE** of these daily as directed.
   a. **Docusate (Colace) OR**
   b. **Magnesium citrate OR**
   c. **Polyethylene glycol (MiraLAX)**
2. Add **ONE** as needed (at a different time of day).
   ! Avoid taking daily.
   a. **Senna (Senokot) OR**
   b. **Bisacodyl (Dulcolax) OR**
   c. **Glycerin suppository**

! Consult provider if pre-existing bowel issues.

4D: Dehydration/Malnutrition

IV fluid options as needed or on a schedule.

If dry mouth/lips, dark/infrequent urine, dizziness.

A. ***Banana Bag*** (fluids + vitamins) with ***B Complex***, **OR**
B. ***Normal Saline*** (NS) or ***Lactated Ringer's*** (LR) solution with
   1. ***B Complex*** and ***MVI*** (multivitamin infusion) **OR**
   2. ***MVI*** and IV ***thiamin*** 100 mg

! If IV fluid has D5 (5% dextrose), ensure ***thiamin*** 200 mg IV per bag is given before or with dextrose.
i Consider midline IV or PICC (Peripherally-Inserted Central Catheter) if multiple IV's per week.
» Request electrolyte blood testing.
» Home and outpatient clinic infusions may be available.

Nutrition

If weight loss is ongoing and more than 7% of pre-pregnancy weight, consider nutrition via a feeding tube (tube from the nose to stomach) or IV nutrition (TPN or Total Parenteral Nutrition).
! Tube feedings are not recommended when vomiting frequently.
! When starting nutrition, close monitoring for at least a week is important due to Refeeding Syndrome.
! Risks of IV and TPN (IV nutrition) can be reduced with excellent care of line and dressing.

4E. Extra Options if Symptoms Persist

! Less commonly given due to unclear research or possible side effects.

A. ***Mirtazapine (Remeron)***: Discontinue other serotonin antagonists.
B. ***Methylprednisolone***: If 9+ weeks pregnant.
C. ***Prochlorperazine (Compazine)*** **OR** ***Chlorpromazine (Thorazine)***: Discontinue other dopamine antagonists.

If symptoms persist, contact the HER Foundation for additional guidance.

Follow the Rule of 2's when reducing medications upon symptom improvement.
Wean each medication in 2nd trimester or later, after 2 weeks with minimal symptoms, over 2+ weeks.

Kimber's RULE OF 2'S

Wean medications for HG:

Wean each medication in 2nd trimester or later | After 2 weeks with minimal symptoms | Over 2+ weeks

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