

# Hyperemesis Gravidarum Management Protocol

Guideline History

Date Approved	6/01
Date Revised	3/07, 7/09
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Next Review Date	07/11

# Hyperemesis Gravidarum Management Protocol

## Definition:

- Incidence is – 5/1000
- Fetal complications include IUGR in about a third of fetuses
- Maternal complications include Wernicke's encephalopathy (ophthalmoplegia, gait ataxia and confusion)

## Criteria:

- Persistent nausea and vomiting, weight loss greater than 5% of pre-pregnancy weight and large ketonuria
- Consider other etiologic causes if nausea and vomiting started after 9 weeks gestation
- TSH is almost always less than 2.5 mU/ml in hyperemesis, if not consider other etiologies

## Laboratory evaluation:

- Ultrasound to rule-out molar pregnancy
- Urine testing for ketones

## Management:

### Step One: (Mild)

#### Dietary modification/Psychological support/OTC medications

- Small dry meals as the desire arises (6 small meals) – Avoid fried, spicy food – Avoid cigarettes, caffeine... Try saltine crackers, potato chips, ginger ale and ginger snaps. Increase oral fluids as tolerated
- Psychological support with reassurance about well being of pregnancy, family counseling
- OTC – start with Vitamin B6 (pyridoxine) at 25mg TID, if no improvement in 48 hours add doxylamine (Unisom) 24mg daily at bedtime
- Ginger can also be an effective treatment. (1 to 1.5 gm divided into 3 doses/day)

## Actions:

- ♦ Patient brochure
- ♦ Refer to “Partners in Pregnancy” OB program. Fax – 552-7090 or Call 1-866-239-0618
- ♦ Office visit once per week until resolution

### **Move to Step Two if no Improvement in 5-7 days**

### Step Two: (Moderate)

#### 2A – Start with outpatient Anti-Emetic Therapy

- Start first line anti-emetic therapy

Brand Name	Generic Name	Strength/Rate of Administration		Cost (Generic Product)
Reglan	Metoclopramide	10mg/po	QID	\$
Phenergan	Promethazine	25mg/po	Q 4-6 hrs (prn)	\$\$
Tigan	Trimethobenzamide	200mg/supp	Q 4-6 hrs (prn)	\$
Compazine	Prochlorperazine	25mg/supp	Q 4-6 hrs (prn)	\$\$
Phenergan	Promethazine	25mg/supp	Q 6 hrs (prn)	\$\$\$
Zofran	Ondansetron	4mg/po	Q 6 hrs (prn)	\$\$\$\$

\*\*\* If not able to take PO – Compazine supp, Phenergan supp

**Actions:**

- ◆ More costly agents should only be used when the patient has failed a combination of less costly agents
- ◆ Continue step one management

**2B – Start IV Hydration Intravenous hydration / Anti-emetic therapy**

- Start at hospital outpatient IV center or Home Health with isotonic solution (NS or LR500 – 1000cc bolus then 100 – 125cc/hour) . Replace Thiamine (100mg in 100cc NS over 30 minutes) before any dextrose containing solution. Supplement MVI-12 and 600 mcg folic acid (for a total of 1mg folic acid per day) in one bag IVF daily.
- Home order: Hyperemesis Gravidarum Home Health Order Set. (**Call Sentara Home Health @ 549-7755 or Peninsula @ 259-6251**)
- Obtain BMP, magnesium, phosphorus if not already obtained. Replace potassium, magnesium, phosphorus as lab values indicate.
- Phenergan 25 mg IVPB.

**Move to Step Three if no improvement in 7 days****Step Three: (Severe)****Corticosteroid therapy**

If symptoms persist despite treatment with IV hydration and anti-emetic therapy, consideration should be given to corticosteroid therapy. In a randomized trial, methylprednisolone was shown to be efficacious in the treatment of hyperemesis.

**Medrol Dosing Schedule:**

<b>Day</b>	<b>Morning</b>	<b>Midday</b>	<b>Bedtime</b>
<b>1</b>	<b>16 mg</b>	<b>16 mg</b>	<b>16 mg</b>
<b>2</b>	<b>16 mg</b>	<b>16 mg</b>	<b>16 mg</b>
<b>3</b>	<b>16 mg</b>	<b>16 mg</b>	<b>16 mg</b>
<b>4</b>	<b>16 mg</b>	<b>8 mg</b>	<b>16 mg</b>
<b>5</b>	<b>16 mg</b>	<b>8 mg</b>	<b>8 mg</b>
<b>6</b>	<b>8 mg</b>	<b>8 mg</b>	<b>8 mg</b>
<b>7</b>	<b>8 mg</b>	<b>4 mg</b>	<b>8 mg</b>
<b>8</b>	<b>8 mg</b>	<b>4 mg</b>	<b>4 mg</b>
<b>9</b>	<b>8 mg</b>	<b>4 mg</b>	
<b>10</b>	<b>8 mg</b>	<b>4 mg</b>	
<b>11</b>	<b>8 mg</b>		
<b>12</b>	<b>8 mg</b>		
<b>13</b>	<b>4 mg</b>		
<b>14</b>	<b>4 mg</b>		

**Move to Step Four if no improvement in 4 –5 days**

## **Step Four: (Inpatient) Failure of all other methods**

### **Hospital admission / enteral – peripheral – Central alimentation**

- Admit to hospital
- Full laboratory work up (CBC/BMP, magnesium, phosphorus, ionized calcium, prealbumin, liver function, amylase, T4, urinalysis)
- Consider enteral nutrition – see Hyperemesis Gravidarum order set.  
If patient cannot tolerate adequate oral intake, a small bore nasogastric feeding tube (8 French) should be placed by the physician. Intra-gastric placement will be confirmed by the easy aspiration of stomach contents and by an appropriate bubbling sound heard by stethoscope auscultation over the epigastrium in response to the injection of air. Lidocaine spray can be used to help attenuate tube placement and with concurrent tube feeding to help attenuate tube irritation. Afrin nasal spray can help reduce sinus inflammation. Xylocaine ointment can be used in the nasal septum prior to tube placement as needed.
- Consider peripheral or central parenteral nutrition – see hyperemesis gravidarum order set
- Treat as inpatient for 2-3 days (or as indicated by clinical condition)
- Discharge to Home health for continued enteral or parenteral nutrition

**Sentara Home Care Services**  
**Hyperemesis Physician Orders/Plan of Treatment**

Patient Name: \_\_\_\_\_ Admit #: \_\_\_\_\_

Diagnosis (es) \_\_\_\_\_ Certification Period From: \_\_\_\_\_ To: \_\_\_\_\_

**BEGIN SERVICE** (Check One)

ASAP  Hospital Discharge

**HOME MONITORING**

Vital Signs with Fetal Monitoring twice per week  Maternal Weight twice per week  
 Urine Ketones twice per week  Monitor daily while on Tube Feeding

**MEDICATIONS/IV HYDRATION**

NS 500cc bolus  
 NS 125cc/hr  
 IV D5P56 @150cc/hr  
 IV D5P56 @125cc/hr  
 Thiamine 100mg in 100cc NS Now  
 Thiamine 50mg in 1 liter NS per day, 1<sup>st</sup> IV of the day

**PHYSICAL ACTIVITY** (Check One)

No limits  Modified Bedrest  BR with BRP  Strict Bedrest  Other

**TUBE FEEDING**

Vivonex 30cc/hr \$  
 Peptomin 30cc/hr \$\$  
 Osmolyte 30cc/hr \$\$\$

**LAB ORDERS** (Twice per Week)

BUN  Creatinine  Lytes

**HYPERAL LAB ORDERS** (Daily)

Labs  
 CBC  
 Creatinine  
 Urine Ketones  
 Lytes

Additional Orders \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Physician Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
RN Signature

\_\_\_\_\_  
Date

White – Medical Record   Yellow – Physician   Pink – Nurse