Optima Health

Hyperemesis Gravidarum Management Protocol

Guideline History

Original Approve Date	6/01
Review/ Revise Dates	07/03, 09/05, 3/07, 05/07, 7/09, 06/11, 7/13, 7/15, 7/17
Next Review Date	07/19

Hyperemesis Gravidarum Management Protocol

Definition:

- Incidence is – 5/1000
- Fetal complications include IUGR (Intrauterine growth restriction) 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

Exams and Laboratory Evaluation

- Physical exam.
- The following laboratory tests will be done to check for signs of dehydration:
    - Hematocrit
    - Urine ketones
- Tests to rule out liver and gastrointestinal problems
- Ultrasound to determine pregnancy with multiples and to check for a hydatidiform mole.

Management:

Step One: (Mild)

Dietary modification/Psychological support/OTC medications

- 6 Small dry meals (Try saltine crackers, potato chips, ginger ale and ginger snaps.)
    - Avoid fried, spicy food
    - Avoid cigarettes, caffeine
- Increase oral fluids as tolerated
- Psychological support with reassurance about well being of pregnancy, family counseling, brochure

OTC

- Start with Vitamin B6 (pyridoxine),
- Doxylamine (Unisom)
- Ginger can also be an effective treatment.
- Refer to “Partners in Pregnancy” OB program. Call toll free @ 1-866-239-0618 or refer to www.optimahealth.com

- 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- First Line anti-emetic therapy

Table 1

Brand Name	Generic Name	Strength/Rate of Administration
Diclegis	Doxylamine succinate and pyridoxine	10mg/ po TID
Reglan	Metoclopromide	10mg/po QID
Phenergan	Promethazine	25mg/po or supp Q 4-6 hrs (prn)
Tigan	Trimethobenzamide	200mg/supp Q 4-6 hrs (prn)
Compazine	Prochlorperazine	25mg/supp Q 4-6 hrs (prn)
Zofran	Ondansetron	4mg/po Q 6 hrs (prn) up to 8mg/po TID * not recommended to be given prior to 12 weeks*

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

- More costly agents should only be used when the patient has failed a combination of less costly agents. For further information related to medications, please refer to www.OptimaHealth.com under Provider/Pharmacy/Formularies/Drug Lists.

- Continue step one management

Please refer to this list when prescribing for your patient. Your patient will have lower drug costs if you prescribe generic drugs and allow brand substitution for dual-branded products.

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 Care: **Call Sentara Home Care Services @ (757) 553-3000 or Toll Free @ 1 (888) 461-5649**

- Obtain Labs:
  - TSH
  - BMP
  - Magnesium
  - Phosphorus

- Replace electrolytes:
  - Potassium
  - Magnesium
  - Phosphorus as lab values indicate.

- Phenergan 25 mg IVPB.

Move to Step three if no improvement in 7 days

Step Three: (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, pre-albumin, liver function, amylase, T4,TSH, urinalysis)
- Consider enteral nutrition. If patient cannot tolerate adequate oral intake, a small bore nasogastric feeding tube (8 French) should be placed by the physician. Intragastric 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

References

1. Fell, Deshayne B. MSc[1], Dodds, Linda PhD[1]; Joseph, K S. MD, PhD[1]; Allen, Victoria M. MD, MSc[2]; Butler, Blair MD[2] Risk Factors for Hyperemesis Gravidarum Requiring Hospital Admission during Pregnancy. Obstetrics & Gynecology 107(2, Part 1):277-284, February 2006. Retrieved June 7, 2017 from http://journals.lww.com/greenjournal/Abstract/2006/02000/Risk_Factors_for_Hyperemesis_Gravidarum_Requiring.12.aspx.

2. Medline Plus (2014). Hyperemesis Gravidarum. US National Library of Medicine, NIH National Institutes of Health. Retrieved June 7, 2017 from http://www.nlm.nih.gov/medlineplus/ency/article/001499.htm.

3. Optima Health (2017). Partners in Pregnancy www.optimahealth.com.

4. The American College of Obstetricians and Gynecologists. Practice Bulletin No. 153: Nausea and Vomiting of Pregnancy. Obstetrics & Gynecology. 126(3):e12-e24, September 2015.

5. Puritz, Holly (2017). Personal Communication. July 17, 2017.