Boston Medical Center Maternity Care Guideline
Guideline: Management of Nausea and Vomiting in Pregnancy
Accepted: 11/13/19
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Introduction

Nausea and Vomiting of Pregnancy: Nausea and vomiting of pregnancy is a common condition of pregnancy affecting 50-80% of all pregnant woman. It most often starts prior to 9 weeks gestation and resolves by 16 weeks GA. Severity of symptoms range from mild nausea to hyperemesis gravidarum.

Hyperemesis Gravidarum: No single definition of hyperemesis gravidarum exists. It is a clinical diagnosis of exclusion, based on absence of other diseases that could explain severe nausea and vomiting. Clinical information that is often present includes, but is not exclusive of:

- Ketonuria
- weight loss at least 5% of pre pregnancy weight
- electrolyte abnormalities
- thyroid abnormalities
- inability of patient to keep down water or food without retching or vomiting

Note: Timing is important
Nausea and vomiting of pregnancy almost always presents prior to 9 weeks of pregnancy. If nausea and vomiting appear after 9 weeks, other differentials should be considered (see Appendix 1)

Prompt treatment of symptoms is important, delay in treatment can lead to increased difficulties controlling symptoms.

Brief significance in pregnancy

Nausea and vomiting in pregnancy can have a significant impact on a woman's quality of life – including lost time at work, lost income, and increased healthcare costs. It is the second most common reason women are admitted to the hospital in pregnancy (second to preterm labor).

Due to its high prevalence, clinicians may minimize the significance of symptoms of nausea and vomiting of pregnancy, and therefore under screen and under treat. In addition, women may hesitate to seek care for their symptoms due to concerns about fetal risks of taking medication. Routine screening, education, and shared decision making regarding treatment options is essential.

Maternal/fetal risks

Moderate nausea and vomiting in pregnancy has very little risks to the fetus and has been correlated with a decreased chance of miscarriage. One systematic review reported that there is a small increased risk of SGA, preterm, and low birthweight infants in pregnancies affected by Hyperemesis, however there is no increased risk of mortality.

Diagnosis

Prenatal patients should be screened at their prenatal intake and each visit, especially during the first trimester. Appropriate labs may be ordered if dehydration or hyperemesis is a concern (urine dip, basic metabolic panel, TSH).

PUQE index may be used as a tool to assess severity of N/V in pregnancy:

1. In the last 12 hours, how many hours have you felt nauseated or sick to your stomach?				
> 6 hrs (5 pts.)	**4-6 hrs (4 pts)**	**2-3 hrs (3 pts)**	**≤ 1 hr (2 pts)**	**Not at all (1 pt)**
2. In the last 12 hours, how many times have you vomited?				
7 or more (5 pts)	**5-6 (4 pts)**	**3-4 (3 pts)**	**1-2 (2 pts)**	**None (1 pt)**
3. In the last 12 hours, how many times have you had retching or dry heaves without bringing anything up?				
7 or more (5 pts)	**5-6 (4 pts)**	**3-4 (3 pts)**	**1-2 (2 pts)**	**None (1 pt)**

Figure 1. Pregnancy-Unique Quantification of Emesis/Nausea (PUQE) index. Total score is sum of replies to each of the three questions. Nausea Score: Mild NVP = ≤6; Moderate NVP = 7-12; Severe NVP = ≥13. Reprinted with permission from Koren G et al.[24]

(Ref: JMWH, King, 2009)

Treatment/Management

Lifestyle/Dietary modifications:

- Avoiding an empty stomach
- Eating small frequent meals
- eating crackers prior to getting out of bed
- Eating a high protein snack before bed
- Avoiding spicy or rich foods
- Avoiding smells that are nausea inducing

Alternative/Complementary Treatment options:

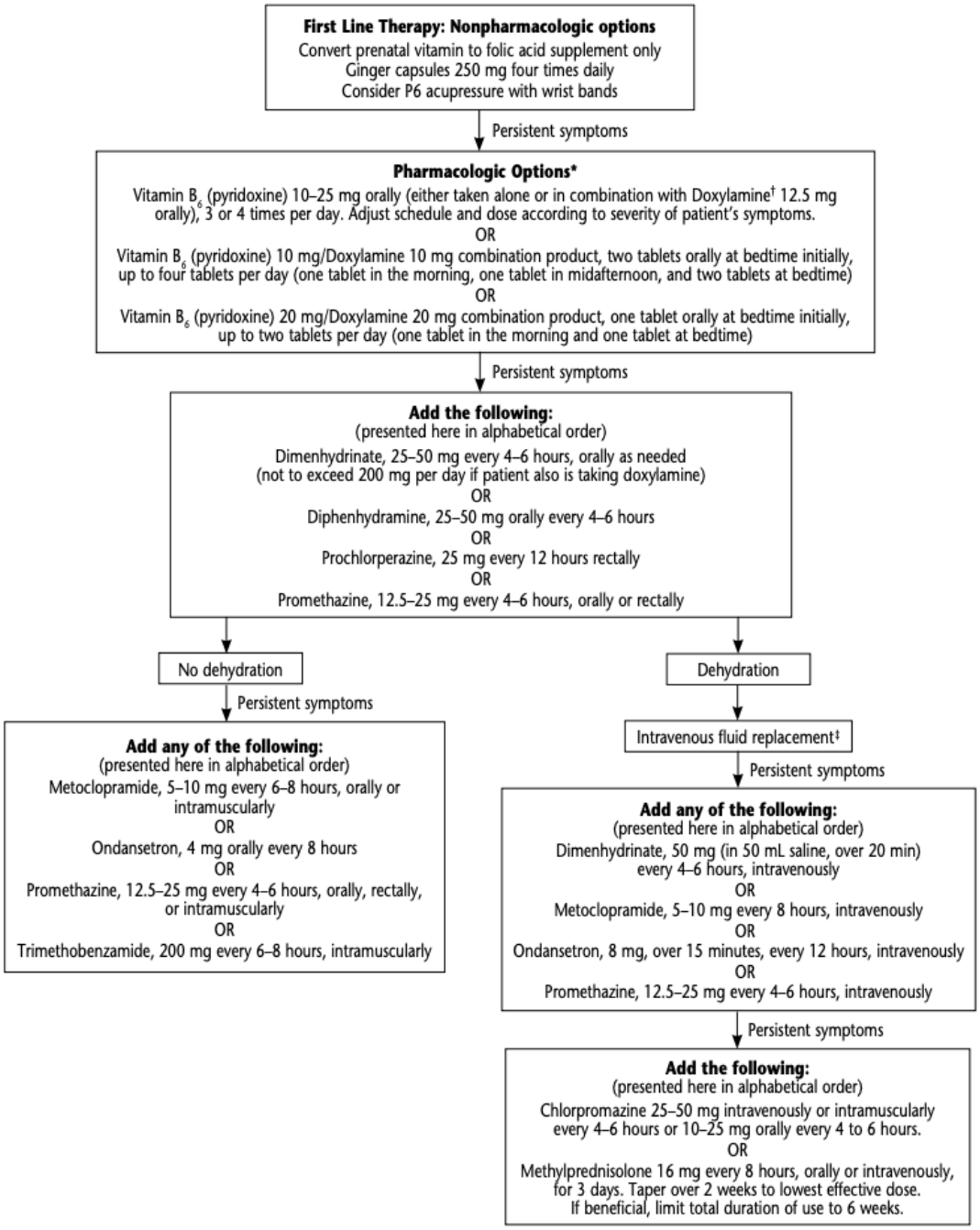
- Vitamin B6 - 25mcg 3-4x per day, alone or with doxylamine (unisom) 12.5 mg
  - Note: unisom gel tabs are a different formulation and cannot be broken in half for the recommended dose and should not be used for this purpose
- Ginger - *at least* 1g/day in divided doses (2 pieces of candy ginger, 4 8oz cups of ginger tea, capsules, liquid, or 1 tsp of grated fresh ginger root steeped in water)
- Acupuncture
- Acupressure - most commonly accomplished with sea bands on the P6 point in between tendons on the wrist

Pharmacologic treatments:

- Promethazine 12.5-25mg Q 4-6hrs PO or IM or PR
  OR
- Metoclopramide 5-10 mg PO or IM q 6-8hrs *
  OR
- Ondanstron 4mg PO Q 8hrs

*see Appendix 2 for pregnancy category and side effects

Algorithm from ACOG practice Bulletin:



Contraindications

Please see Appendix 2 for medication specific contraindications.

Logistical Practice for BMC and CHC providers

- Combined pyroxidine/doxylamine products (eg: diclegis) are currently not on formulary or covered by public insurance and have a high out of pocket cost. However, consider prescribing it for women with private insurance as they have a higher efficacy and patients take it less often
- Patients needing IV fluids for Hyperemesis may be treated at a health center if IVF available, or sent to ED at BMC if <20 weeks. If admission is warranted, will be handled by in house GYN service. If sending patient to ED for hyperemesis, page 3030 for expect
- Patients needing IV fluids > 20 weeks can present to triage on L and D for management. Call the triage desk at (617) 414-4325 or page 0008 with expect

Patient Education/Patient Education Materials

- **Share with Women – JMWH:**

  http://www.midwife.org/ACNM/files/ccLibraryFiles/Filename/000000000650/Nausea%20and%20Vomiting%20During%20Pregnancy.pdf

- **ACOG educational materials:**
  https://www.acog.org/-/media/For-Patients/faq126.pdf?dmc=1&ts=20191113T1603074870

References

- ACOG Practice Bulletin, Nausea and Vomiting of Pregnancy, 2018
- King, T and Murphy, P. Evidence based approach to managing Nausea and Vomiting of Pregnancy, JMWH, 2009

Appendix 1

Differential Diagnosis for Severe Nausea and Vomiting in Pregnancy

Box 1. Differential Diagnosis of Nausea and Vomiting of Pregnancy ⇦

Gastrointestinal conditions

- Gastroenteritis
- Gastroparesis
- Achalasia
- Biliary tract disease
- Hepatitis
- Intestinal obstruction
- Peptic ulcer disease
- Pancreatitis
- Appendicitis

Conditions of the genitourinary tract

- Pyelonephritis
- Uremia
- Ovarian torsion
- Kidney stones
- Degenerating uterine leiomyoma

Metabolic conditions

- Diabetic ketoacidosis
- Porphyria
- Addison's disease
- Hyperthyroidism
- Hyperparathyroidism

Neurologic disorders

- Pseudotumor cerebri
- Vestibular lesions
- Migraine headaches
- Tumors of the central nervous system
- Lymphocytic hypophysitis

Miscellaneous conditions

- Drug toxicity or intolerance
- Psychologic conditions

Pregnancy-related conditions

- Acute fatty liver of pregnancy
- Preeclampsia

Reprinted from Goodwin TM. Hyperemesis gravidarum. Obstet Gynecol Clin North Am 2008;35:401–17, viii, with permission from Elsevier.

Ref: ACOG practice Bulletin, Nausea and Vomiting of Pregnancy, 2018

Appendix 2

Medication Considerations

Generic Name	Brand Name	Pregnancy Category	Considerations for Shared Decision making: (Side Effects/Potential Teratogenicity)
Pyridoxine	Vitamin B 6	B	• No side effects
doxylamine	Unisom	B	• Main side effect is Drowsiness • May be purchased OTC. Encourage women to break 25mg pill in half – and take only at night if too drowsy during the day
Pyroxidine/ doxylamine	Dyclegis	B	• Not covered by many insurances, however slightly higher efficacy if covered by insurance
Metoclopramide	Reglan	C	• Black box warning: Tardive dyskinesia is a rare complication of metoclopramide use, but very rare in young women, do not use for longer than 12 weeks • No evidence of teratogenicity or increased risk of SAB
Ondansetron	Zofran	C	• May prolong QT intervals • Small increased absolute risk of cardiac defects and cleft palate may exist (risk difference 2.7 in 10,000). Overall data is reassuring. • Possible s/e include Fatigue, constipation
Promethazine	Phenergan	C	• Good safety data in pregnancy • Risk of sedation and dystonic reactions under prolonged use and high dosing • Black box warning with IV administration (no risk with PO or PR or IM) • Can give as suppository if patient can not take PO