



## Nausea and Vomiting of Pregnancy

- ❖ Nausea and vomiting of pregnancy is a common condition that affects the health of both the pregnant woman and her fetus.
- ❖ It can diminish the woman's quality of life and contributes significantly to health care costs.
- ❖ Up to 50% of women who called a nausea and vomiting of pregnancy hotline and who subsequently terminated their pregnancies because of severe nausea and vomiting had not been offered any sort of antiemetic therapy
- ❖ Of those offered treatment, 90% were offered regimens that were not likely to be effective
- ❖ Treatment in the early stages may prevent more serious complications, including hospitalization
- ❖ Mild cases of nausea and vomiting may be resolved with lifestyle and dietary changes, and safe, effective, and inexpensive treatments are available for more severe cases
- ❖ Nausea and vomiting of pregnancy must be distinguished from nausea and vomiting related to other causes

### **Differential Diagnosis of Nausea and Vomiting in Pregnancy**

#### ***Gastrointestinal Conditions***

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

#### ***Genitourinary Tract Conditions***

- Pyelonephritis
- Uremia
- Ovarian torsion
- Kidney stones
- Degenerating fibroid

#### ***Metabolic Disease***

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

#### ***Neurologic Disorders***

- Pseudotumor cerebri
- Vestibular lesions
- Migraines
- Tumors of the central nervous system

#### ***Miscellaneous***

- Drug toxicity or intolerance
- Psychologic

#### ***Pregnancy-Related Conditions***

- Acute fatty liver of pregnancy
- Preeclampsia

## **Clinical Considerations**

### **Nonpharmacologic Therapies**

- Advise women with a history of N & V or hyperemesis gravidarum (HG) in a previous pregnancy to take a multivitamin at the time of the next conception
- Ginger does reduce episodes of vomiting, ginger capsules 250 mg, 4 times a day.
- Pressure or electrical stimulation at the P6 (or Neiguan) point on the inside of the wrist. Although the preponderance of the literature does show a benefit it remains controversial.

### **Pharmacologic therapies**

- ❖ Treatment of nausea and vomiting of pregnancy with vitamin B6 or vitamin **B6 plus doxylamine** (*Bendictine*) is safe and effective and should be considered **first-line**.
- ❖ See Algorithm

### **When is hospitalization considered?**

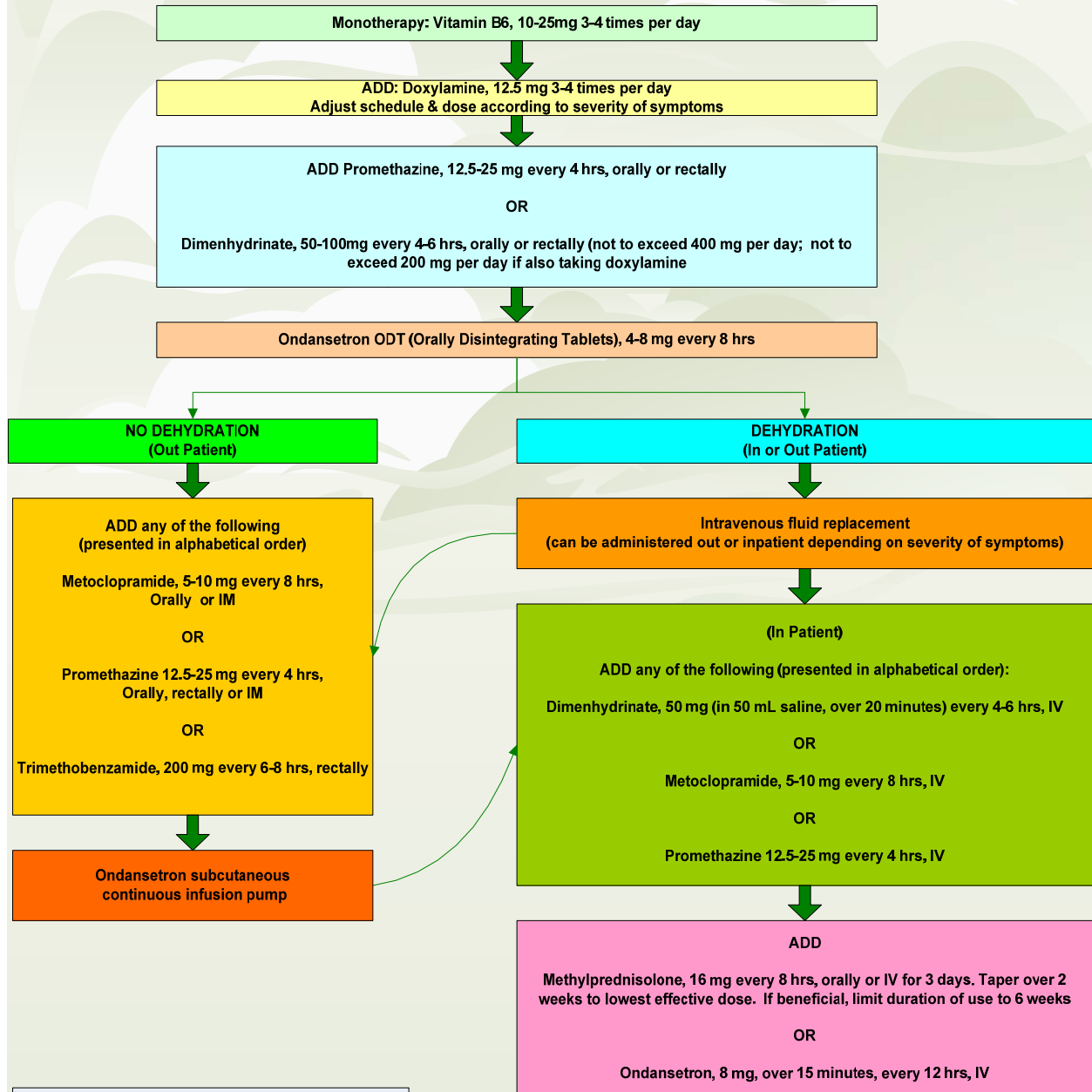
When a woman cannot tolerate liquids without vomiting and has not responded to outpatient management, hospitalization for ***evaluation and initiation of treatment*** is recommended. The patient's initial status should be observation, as many patients will only require 1-2 days for evaluation and treatment.

- Continued weight loss while on antiemetic therapy
- Change in vital signs
- Change in affect
- IV should be used when cannot tolerate oral liquids for a prolonged period or if clinical signs of dehydration are present.
- Correct ketosis and vitamin deficiency with dextrose and vitamins, especially thiamine when prolonged vomiting is present.
- Enteral tube feeding is an initial step.
- Peripheral parenteral nutrition using a high-lipid formula can be used for patients whose calorie requirements are not great and those whose length of treatment is anticipated to be a few days
- Total parenteral nutrition (TPN) is used for women who need longer-term support and who cannot tolerate enteral tube feedings

### **Post Hospitalization Care**

- After the patient has been hospitalized on one occasion and a workup for other causes of severe vomiting has been ruled-out, IV hydration, nutritional support, and modification of antiemetic therapy can be accomplished at **home**.
- Consider home health service and antiemetic infusions if oral and rectal routes have failed.

**Suggested Pharmacologic Treatment of Nausea & Vomiting in Pregnancy**  
(If no improvement, proceed to the next step)



Adapted from Nausea and vomiting of pregnancy. ACOG Practice Bulletin No. 52. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2004;103:803-15, Reaffirmed 2009.

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- The above algorithm assumes other causes of nausea and vomiting have been ruled out.
- At any step consider parenteral nutrition if dehydration persists or persistent weight loss is noted.
- Alternative therapies may be added any time during the sequence depending on patient acceptance and clinician familiarity.
- Doxylamine is available as the active ingredient in some over the counter sleep aids; one half scored 25 mg tablet can be used to provide 12,5 mg dose of doxylamine.
- Thiamine, 100mg daily, IV for 2-3 days (followed by IV multivitamins) is recommended for every woman who requires IV hydration and has vomiting for more than 3 weeks.
- Corticosteroids appear to increase the risk of oral clefts in the first 10 weeks of gestation.

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