



APEC Guidelines Nausea and Vomiting of Pregnancy

Nausea and vomiting of pregnancy (NVP) is a common event that affects 70-85% of pregnant women. Approximately 35% of pregnant women consider their symptoms severe enough to limit their activities of daily living which extends to loss of time at work. While a single etiology of NVP has not been identified, elevated levels of estrogen and human chorionic gonadotropin (hCG) have been shown to be associated with it in a dose-dependent fashion. (Olson, 2010) Risk factors include an increased placental mass as seen with molar gestation or multiple gestations, a personal or family history of hyperemesis gravidarum (HG), a history of motion sickness or migraines. NVP is often associated with biochemical hyperthyroidism due to the action of human chorionic gonadotropin (HCG) on the thyroid-stimulating hormone (TSH) receptor. NVP does not cause true hyperthyroidism and routine thyroid function tests are not indicated. TSH is often suppressed to undetectable levels but as long as the patient does not have overt signs of hyperthyroidism with elevated Free T4 after volume repletion, antithyroid medications should not be started.

Hyperemesis gravidarum (HG) represents the extreme spectrum of NVP; it occurs in approximately 0.5-2% of pregnancies, and includes symptoms such as persistent vomiting, dehydration, acid-base disturbance, weight loss of at least 5% of prepregnancy weight, ketonuria, and electrolyte disturbances. HG is the most common reason for admission to the hospital during the first half of pregnancy

Clinical Course

The mean gestational age at onset is 5-6 weeks from the last menstrual period. Severity and frequency peak at ~9 weeks and then begin to subside. Symptoms persist beyond 16 weeks in only 10 to 15% of women. When NVP persists in the second and third trimesters, the intensity usually remains fairly consistent and does not lessen.

Diagnostic Approach

NVP is a diagnosis of exclusion. Physical exam findings not characteristic of NVP include:

- Abdominal pain (other than musculoskeletal due to retching)
- Abdominal tenderness other than mild epigastric discomfort
- Fever
- Headache
- Abnormal neurologic exam (suggestive of a primary neurological disorder)
- Goiter (suggestive of primary thyroid disease)

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The presence of these findings should lead to consideration of other serious medical conditions such as pyelonephritis and appendicitis. An ultrasound should be performed (if not already done) to rule out predisposing factors such as multiple gestation or molar pregnancy.

Classification

After a thorough evaluation, patients with NVP can be classified according to the following criteria:

Category	Symptoms	Impact on daily activities and/or employment
Mild	Nausea <1 hour during the day	Little to none
Moderate	Nausea and vomiting up to twice in a day	Moderate
Severe	Persistent symptoms for 6 or more hours with 5 or more episodes of vomiting and retching per day.	Significant: requires hospitalization for IV hydration

Management

If symptoms of NVP are impacting the patient's activities of daily living, some form of management should be initiated to prevent the progression to HG. Medications should be administered on a scheduled basis with doses titrated to individual patient needs. Patients with severe NVP or HG require urgent medical care due to dehydration and malnutrition. Enteral tube feeding has been found to be well tolerated during pregnancy and can be used in severe forms of HG. All other therapies should be considered and tried before initiating enteral tube feeding. Total Parental Nutrition (TPN) is not recommended.

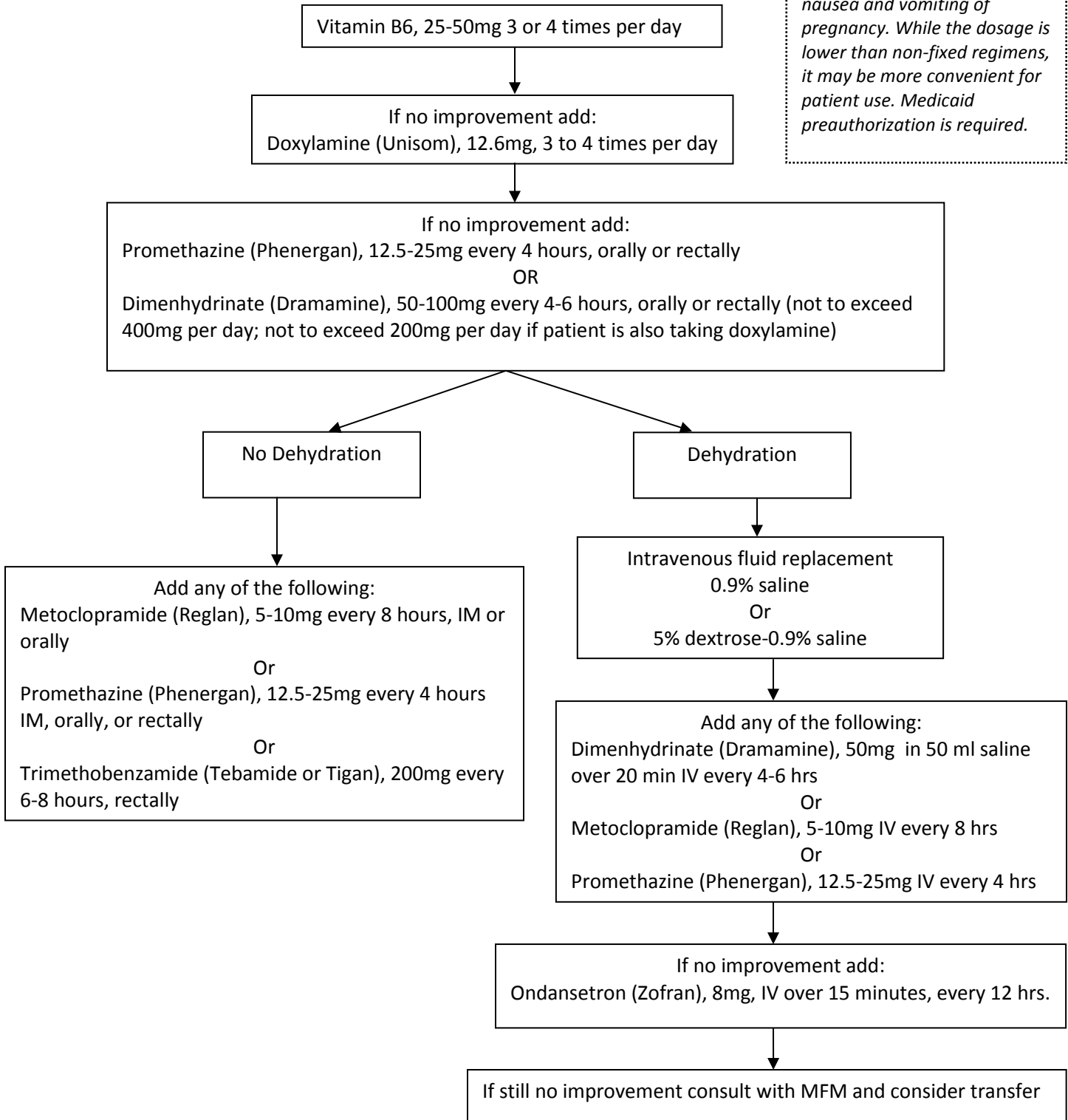
Common recommendations to alleviate symptoms:

- Rest
- Avoidance of sensory stimuli
- Frequent, small meals
- Bland, dry diet high in protein; decrease fat and spicy foods
- Crackers in the morning before arising
- Ginger capsules, 250 mg 4 times per day
- Pressure (acupressure technique) or electrical stimulation at the Neiguan point on the inside of the wrist (conflicting results)

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A commercially fixed dose combination of doxylamine (antihistamine) and pyridoxine hydrochloride (Vitamin B6) is available for the treatment of nausea and vomiting of pregnancy. While the dosage is lower than non-fixed regimens, it may be more convenient for patient use. Medicaid preauthorization is required.

Pharmacologic therapies



(ACOG, 2004 reaffirmed 2013; Tan, 2013)

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References

- ACOG. (2004 reaffirmed 2013). Practice Bulletin No. 52 Nausea and Vomiting of Pregnancy. *American College of Obstetrics and Gynecologists*.
- Olson, G. (2010). Nausea and Vomiting. In J. C. H. John T. Queenan, Catherine Y. Spong (Eds). (Ed.), *Protocols for High-Risk Pregnancies* (Fifth ed., pp. 383-390). West Sussex, UK: Wiley-Blackwell.
- Tan, P. C., Norazilah, M.J., Omar, S.Z. (2013). Dextrose saline compared with normal saline rehydration of hyperemesis gravidarum *Obstetrics & Gynecology*, 121(2), 291-298.