

## NAUSEA AND VOMITING IN PREGNANCY

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### **ABSTRACT**

*Nausea and vomiting in pregnancy also known as “Morning Sickness” usually begins between the 4<sup>th</sup> and 7<sup>th</sup> weeks in 80% of pregnant women and resolves by the 20<sup>th</sup> week of gestation. It is usually a mild, self limited condition which is often controlled by conservative measures. The etiology of nausea and vomiting in pregnancy remains unknown. There are different factors and theories believed to cause this. Management includes non-pharmacological (e.g. assurance/counselling, acupressure, dietary measures and music therapy) and pharmacological therapy (like medication, antiemetics, antihistamines & anticholinergics, motility drugs and corticosteroids).*

**KEY-WORDS:** *Nausea, Vomiting, Pregnancy, Morning sickness.*

### **INTRODUCTION**

Nausea and vomiting in pregnancy are also known as “Morning Sickness”. Morning Sickness is nausea that occurs during pregnancy. The name is a misnomer as it can strike at any time of the day or night. It usually begins between the 4<sup>th</sup> and 7<sup>th</sup> weeks in 80% of pregnant women and resolves by the 20<sup>th</sup> week of gestation. It is usually a mild, self limited condition which is often controlled by conservative measures. Rarely morning sickness is so severe that it is classified as Hyperemesis Gravidarum. Hyperemesis Gravidarum includes persistent vomiting dehydration, ketosis, electrolyte disturbances and weight loss.

### **CAUSES**

The etiology of nausea and vomiting in pregnancy remains unknown. Many believe that psychologic factors are responsible for nausea and vomiting in pregnancy but few data support this theory. Many reports have suggested that hormones may cause nausea and vomiting. Elevated levels of Human Chorionic Gonadotropin (HCG) and suppressed levels of Thyrotropin stimulating hormones were found in patients with Hyperemesis Gravidarum. A recent study <sup>[1]</sup> has suggested that chronic infection with Helicobacter Pylori may play a role in Hyperemesis Gravidarum.

## OUTCOME

Women with morning sickness have been noted to have improved pregnancy outcomes.

## TREATMENT

### Non-pharmacologic therapy

Assurance - Although morning sickness is not strongly associated with psychologic illness, appropriate support from family members as well as from medical staff is recommended. Acupressure<sup>[3,4]</sup>-Acupressure is an intervention without known adverse effects. The most common point is (P6) Pericardium 6 or Nei guan Point, which is located three finger breadths above the wrist of the volar surface. Dietary measures- Maximum pregnant women are relieved by simple dietary Modifications. Intake of frequent, small meals and to avoid fatty, oily food helps the women with morning sickness. Solid foods should be bland tasting, high in Carbohydrates. Ginger<sup>[5]</sup> is a popular alternative treatment for morning sickness. Music therapy- when used with standard treatment, music therapy can help to reduce morning sickness

**Differential Diagnosis and Evaluation (Table 1<sup>[2]</sup>)**

<b>Table 1 Differential diagnosis of persistent vomiting in pregnancy</b>	
<b>Gastrointestinal disorders</b>	<b>Metabolic disorders</b>
• Gastroenteritis	• Diabetic ketoacidosis
• Biliary tract disease	• Porphyria
• Hepatitis	• Addison's disease
• Intestinal obstruction	• Hyperthyroidism
• Peptic ulcer disease	• Neurologic disorders
• Pancreatitis	• Pseudotumor cerebri
• Appendicitis	• Vestibular lesions
Genitourinary tract disorders	• Migraine headaches
• Pyelonephritis	• Central nervous system tumors
• Uremia	• Pregnancy-related conditions
• Degenerating uterine leiomyoma	• Nausea and vomiting in pregnancy*
• Torsion	• Acute fatty liver in pregnancy
• Kidney stones	• Pre-eclampsia
	• Drug toxicity or intolerance

\* including Hyperemesis Gravidarum

## Pharmacologic Therapy

Pyridoxine (Vitamin B<sub>6</sub>) – Pyridoxine alone or in combination with Doxylamine 1 Tab 6-8 hourly very effective in relieving the symptoms. Pyridoxine- Doxylamine is still the only medication that the US Food and Drug Administration has specifically labeled for the treatment of nausea and vomiting in pregnancy.

<b>Medication</b>	<b>Dosages*</b>	<b>Pregnancy category</b>
• Pyridoxine (vitamin B <sub>6</sub> )	25 mg orally three times daily	A #
• Doxylamine (unison)	25 mg orally once daily	\$
<b>Antiemetics</b>		
• Chlorpromazine	10-25 mg orally 2-4 times daily	C
• Prochlorperazine	5-10 mg orally 3 or 4 times daily	C
• Promethazine	12.5-25 mg orally every 4-6 hours	C
• Trimethobenzamide	250 mg orally 3 or 4 times daily	C
• Ondansetron	8 mg orally 2 or 3 times daily	B
• Droperidol	0.5-2 mg IV or IM every 3 or 4 hours	C
<b>Antihistamines and anticholinergics</b>		
• Diphenhydramine	25-50 mg orally every 4-8 hours	B
• Meclizine	25 mg orally every 4-6 hours	B
• Dimenhydrinate	50-100 mg orally every 4-6 hours	B
<b>Motility drug</b>		
• Metoclopramide	5-10 mg orally every 3 times daily	B
<b>Corticosteroid</b>		
• Methylprednisolone	16 mg orally 3 times daily; then taper	C

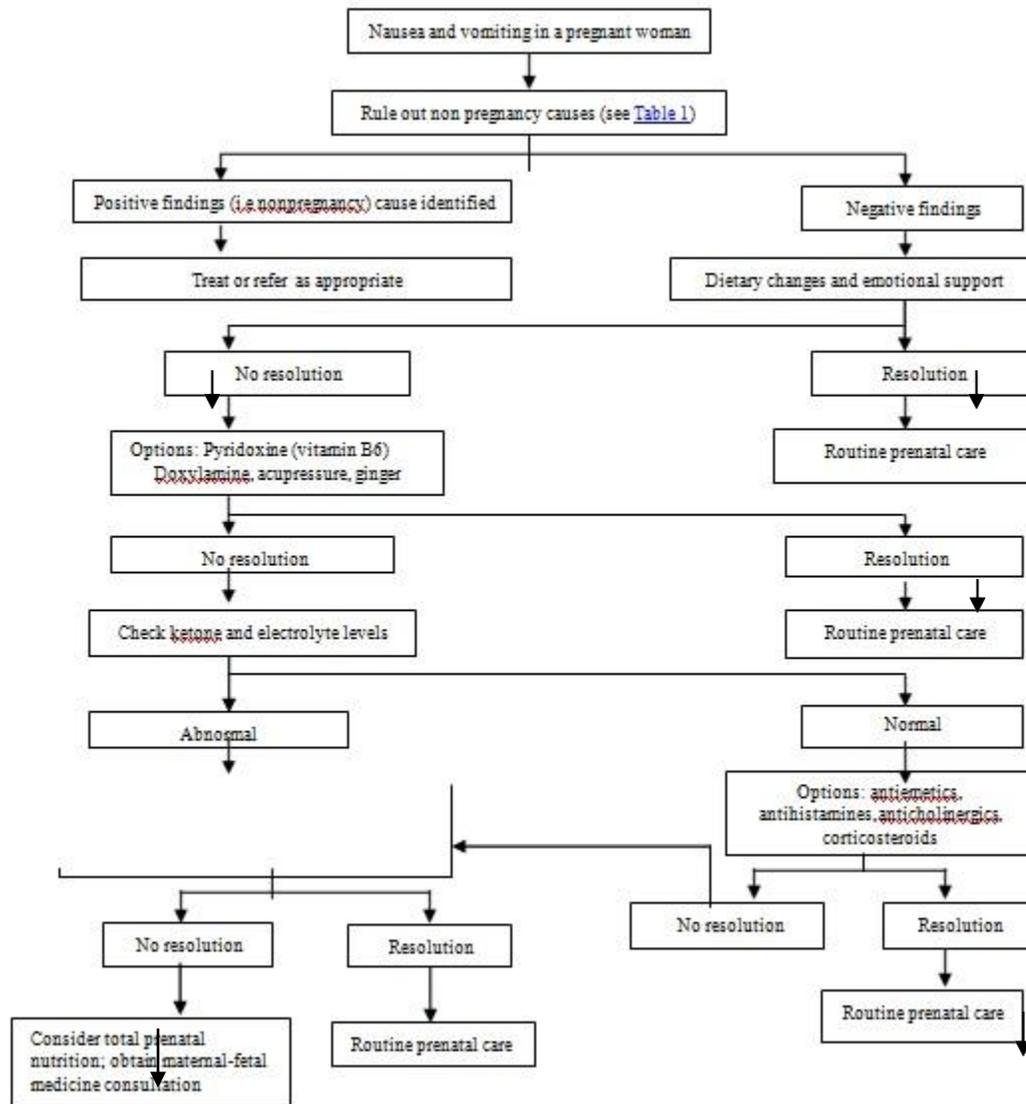
Abbreviations: IV, intravenously; IM, intramuscularly

\*these regimens usually are administered only as needed

#The pregnancy category for doxylamine relates to its use as a vitamin supplement.

\$ According to the physicians' desk reference for nonprescription drugs and dietary supplements, doxylamine should not be taken by pregnant women or women who are nursing a baby; however, some research supports its efficacy and safety.

**Flow Chart 1: An approach to the management of women with nausea and vomiting in Pregnancy**



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