

NAUSEA AND VOMITING (P. 963-968)

Most common symptom of GI diseases

Etiology and Pathophysiology

- Pregnancy
- Infection
- CNS disorders (meningitis, tumor)
- Cardiovascular problems (MI, HF)
- Metabolic disorders (DM, Addison's, renal fail)

- Side effects of medication / treatment
 - o Chemotherapy
 - o Opioids
 - o Digitalis

- Physiologic factors
 - o Stress
 - o Fear

- Vomiting center in brainstem which receives input from various stimuli
- Chemoreceptor trigger zone (CTZ) in brainstem responds to chemical stimuli of drugs and toxins
- GI tract is irritated, excited, or distended to rid body of irritating foods and liquids

Clinical Manifestations

- Nausea
- Anorexia
- Dehydration
- Electrolyte imbalances
- Metabolic alkalosis: loss of gastric hydrochloric acid
- Metabolic acidosis: contents of small intestine vomited
- Weight loss
- Pulmonary aspiration: *place patient side-lying

Collaborative Care

- Determine and treat cause
- Provide symptomatic relief

- Emesis
 - o partially digested food several hours after a meal: gastric outlet obstruction / delayed gastric emptying
 - o fecal odor and bile: intestinal obstruction below pylorus
 - o bile: obstruction
 - o "coffee ground" gastric bleed
 - o bright red blood: active bleeding r/t Mallory-Weiss tear (disruption of lining), varices, ulcer, neoplasm
 - o early morning vomit: pregnancy

Drug Therapy

DESCRIPTION:

- diminishes sensitivity of the chemoreceptor trigger zone to irritants
- alleviates nausea and vomiting
- prevent and control emesis and motion sickness

TYPES OF ANTIEMETICS

1. Centrally acting agents
 - a. Ondansetron HCl (Zofran)
 - b. Prochlorperazine (Compazine)

2. Agents for motion sickness and control
 - a. Dimenhydrinate (Dramamine)

3. Agents that promote gastric emptying (act on dopamine receptors)
 - a. Metoclopramide (Reglan)

MAJOR SIDE EFFECTS

- CNS depression (CNS)
- Hypotension (vasodilation via central mechanism)
- Dry mouth (anticholinergic)
- Blurred vision (anticholinergic)
- Incoordination (extrapyramidal r/t dopamine antagonism)

NURSING CARE WITH MEDICATION

- Observe vomitus characteristics
- Provide oral hygiene
- Eliminate noxious substances in diet and environment
- Administer before chemotherapy
- Sugar-free gum to promote salivation
- Change positions slowly

Nutritional Therapy

- IV fluid with electrolyte and glucose replacement
- NG tube to suction and decompress stomach
- Oral nutrition with clear liquids when symptoms subside
- Dry toast or crackers for alleviation
- Sipping small amounts of fluid
- **Diet high in carbs and low in fatty foods**
 - Baked potato
 - Plain gelatin
 - Cereal with milk and sugar
 - Hard candy
- **Poorly tolerated foods**
 - Coffee
 - Spicy foods
 - Highly acidic foods
 - Strong odors
- Take fluids between meals rather than with meals

Non-drug Therapy

- Acupressure
- Acupuncture
- Herbs
- Breathing exercises
- Changes in body position
- Ginger

NURSING MANAGEMENT

Nursing Assessment: Subjective Data

PMH:

- GI disorders
- chronic indigestion
- food allergies
- pregnancy
- infection
- CNS disorders
- recent travel
- bulimia
- metabolic disorders
- cancer
- cardiovascular disorders
- renal disease

Medications:

- use of antiemetics
- digitalis
- opioids

- ferrous sulfate
- aspirin
- aminophylline
- alcohol
- antibiotics
- general anesthesia
- chemotherapy

Surgery:

- recent surgery

Nutritional:

- amount
- frequency
- character
- color of vomit
- dry heaves
- anorexia
- weight loss

Activity-exercise:

- weakness
- fatigue

Cognitive:

- abdominal tenderness
- pain

Nursing Assessment: Objective Data**General:**

- lethargy
- sunken eyeballs

Integumentary:

- pallor
- dry mucus membranes
- poor skin turgor

GI:

- amount, frequency, character, content, and color of vomit

Urinary:

- decreased output
- concentrated urine

Possible Diagnostic Findings:

- altered serum electrolytes (esp. hypokalemia)

Nursing Diagnoses**Imbalanced Nutrition: Less than Body Requirements**

- Provide information about nausea, such as causes and how long it will last
- Monitor recorded intake for nutritional content and calories to evaluate nutritional status
- Encourage eating small amounts of food that are appealing to the nauseated person
- Give cold, clear liquid and odorless and colorless food

Nausea r/t multiple etiologies AEB reports of N&V

- Perform complete assessment of nausea, including frequency, duration, severity, precipitating factors
- Reduce or eliminate personal factors that precipitate or increase the nausea
- Use frequent oral hygiene
- Ensure antiemetics or given
- Teach use of nonpharmacologic techniques: relaxation, guided imagery, music therapy, distraction, acupressure
- Promote adequate rest and sleep