CHAPTER 33
NURSING CARE OF PATIENTS WITH UPPER GASTROINTESTINAL DISORDERS

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OBJECTIVES

1. Describe therapeutic measures in nursing care for anorexia, anorexia nervosa, nausea, vomiting, and bulimia nervosa.

2. Describe medical, surgical, nursing management for obesity.

3. Plan nursing for a patient with acute or chronic gastritis.

4. Explain the pathophysiology, signs and symptoms, nursing care, and diagnostic testing for hiatal hernia, peptic ulcer disease, gastric bleeding, and gastric cancer.

5. List current pharmacological treatments used for peptic ulcer disease.

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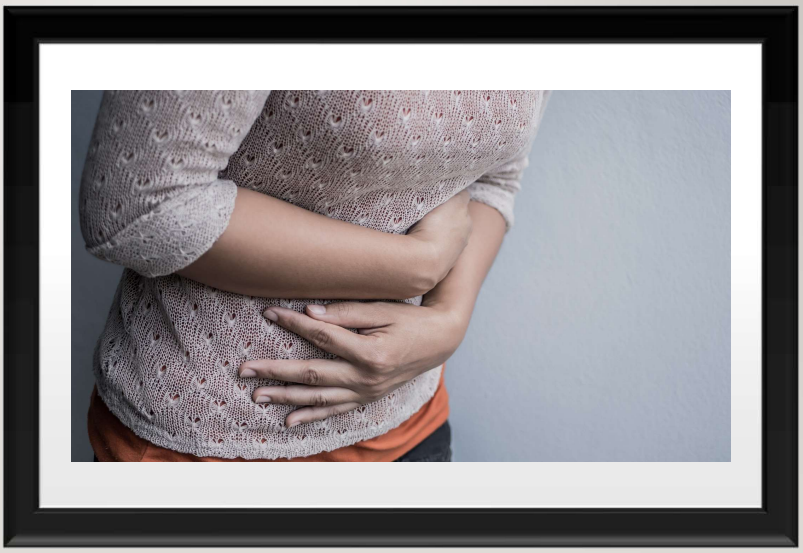
ANOREXIA, ANOREXIA NERVOSA, NAUSEA, VOMITING, AND BULIMIA NERVOSA



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ANOREXIA

- Lack of appetite
- Common symptom of many diseases
- Nursing care
  - Monitor intake/output of food and fluids.
  - Monitor vital signs, weight, electrolytes, and electrocardiogram
  - Monitor rate of IV infusion or enteral feeding.

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ANOREXIA NERVOSA

Signs and symptoms

- Restricted energy intake
- Intense fear of weight gain
- Body image disturbance
- Electrolyte imbalance
- Cardiac dysrhythmias
- Skin changes
- Muscle wasting

Therapeutic Measures

- Medical, psychological, and nutritional assessment
- Distorted self-body image and control issues need to be treated
- Goal to restore nutritional health
- Many die from complications
- Patients often do not see the need for therapy

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NAUSEA AND VOMITING

Nausea

- Urge to vomit

Vomiting

- Expelling stomach contents through esophagus and mouth

Therapeutic interventions

- None
- Protect airway.
- Medications
- IV fluids
- Nasogastric (NG) tube
- Clear liquids and advance as tolerated

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NURSING CARE-NAUSEA AND VOMITING

- Monitor fluid deficit-dehydration, electrolyte imbalances
  - Weakness
  - Thirst
  - Dizziness
  - Confusion
  - Postural hypotension
- Provide quiet, odor-free, environment
- Give antiemetics
- Frequent oral care
- Avoid triggers
- Turn the patient to the side to prevent aspiration

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BULIMIA NERVOSA

Signs and symptoms	Therapeutic Measures (same as anorexia nervosa)

• Similar to anorexia nervosa
• Recurrent inappropriate compensatory behaviors
  • Self-induced vomiting
  • Laxative or diuretic misuse
  • Excessive exercise
• Tooth enamel erosion
• Calloused knuckles
	• Medical, psychological, and nutritional assessment
	• Distorted self-body image and control issues need to be treated
	• Goal to restore nutritional health
	• Many die from complications
	• Patients often do not see the need for therapy

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MANAGEMENT FOR OBESITY

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OBESITY

Weight >20% than ideal body weight

- BMI greater than 40
- Weigh over 100 pounds over ideal body weight
- BMI greater than 35 and severe health conditions

Waist circumference

- Women >35 inches
- Men >40 inches

Body mass index (BMI)

- Overweight: 25 to 30 kilogram per square meter
- Obese: >30 kilogram per square meter

Caloric intake exceeds energy expenditure

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OBESITY-COMORBIDITIES

- Atherosclerosis
- Gallbladder disease
- Heart disease
- Hypertension
- Sleep apnea
- Type 2 diabetes mellitus
- Depression

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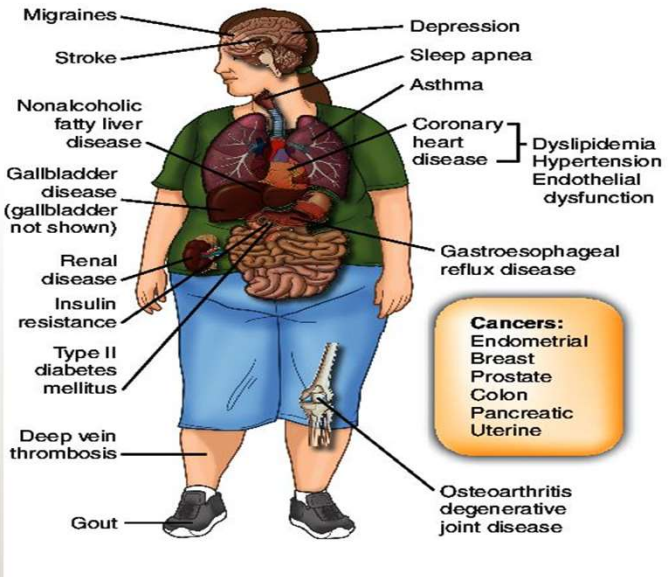

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OBESITY-THERAPEUTIC INTERVENTIONS

- Weight loss
  - Healthy balanced diet, calorie restriction, exercise
- Support groups
- Behavior modification
- Surgical management: Bariatric surgery

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OBESITY-SURGICAL INTERVENTION

- Types of bariatric surgery
  - Restrictive
    - Limits how much stomach can hold
  - Malabsorption
    - Decreases calorie/nutrient absorption
  - Combination
    - Restrictive and malabsorption

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OBESITY-SURGERIES

- Sleeve gastrectomy
- Gastric bypass (Roux-en-Y)
- Biliopancreatic diversion with duodenal switch
- Adjustable gastric banding
- Intragastric balloon

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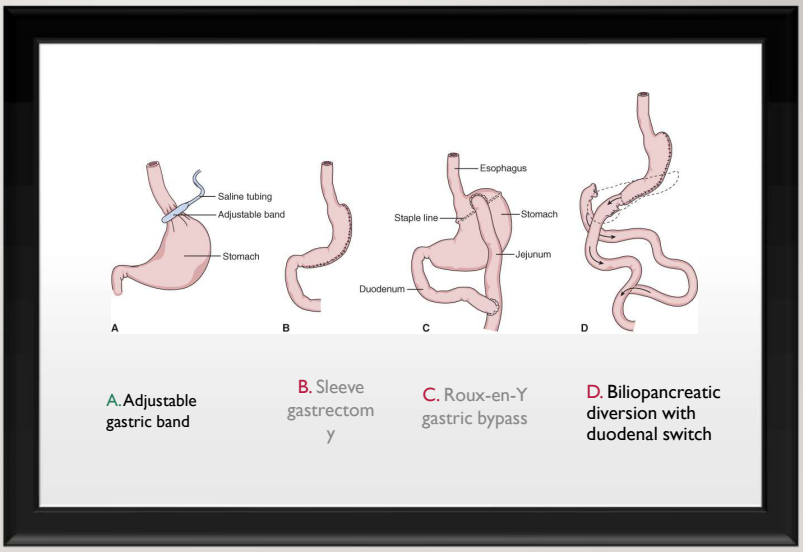
WEIGHT LOSS SURGERIES



A. Adjustable gastric band

B. Sleeve gastrectomy

C. Roux-en-Y gastric bypass

D. Biliopancreatic diversion with duodenal switch

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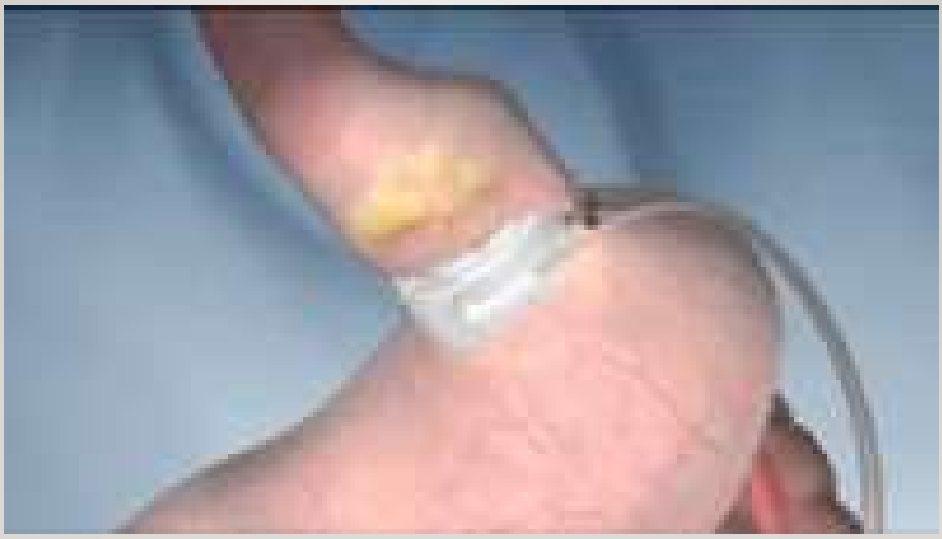

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COMPLICATIONS TO WEIGHT LOSS SURGERIES

- Nausea and vomiting
- Erosion of the gastric tissue
- Breakdown of staple line
- Leaking of stomach secretions
- Infection or death
- Balloon leak or perforation
- Protein, vitamin, and/or mineral deficiencies

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WEIGHT LOSS SURGERY POST OP

Diet is different from other postoperative patients

- Clear, liquid diet; small amounts
- Progresses to full liquids, pureed foods
- Regular foods at 6 weeks

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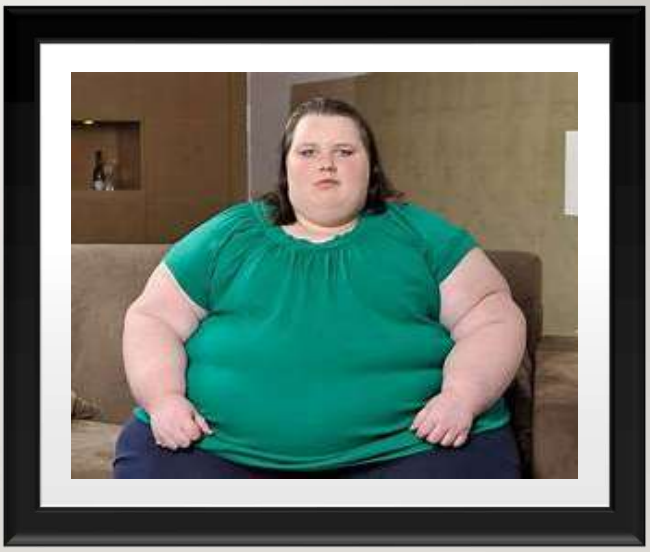
- Mrs. Bratcher, 34 years old, is admitted to the hospital for bariatric sleeve gastrectomy. She weighs 131.8 kilograms (290 pounds). She reports being excited to have the surgery and is looking forward to losing weight. She has a history of hypertension and hyperlipidemia.



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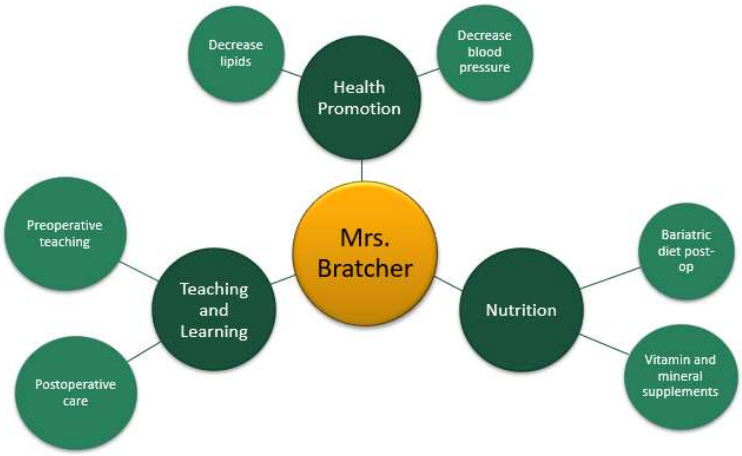
Mrs. Bratcher: Suggested Relationships



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ORAL DISORDERS

- Important to overall health
- Often neglected in daily care
- Mechanical oral hygiene
  - Prevents pneumonia
  - Helps prevent pneumonia-related death in older patients
- Antibiotic prophylaxis for some conditions

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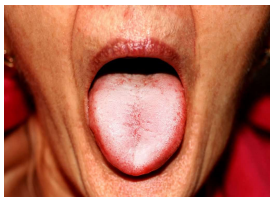
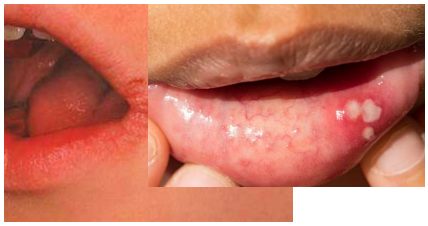
ORAL HEALTH

- Conditions
  - Angular cheilosis
  - Dental implants
  - Dentures
  - Gingival recession
    - Fluoride gel or rinse
  - Gingivitis
    - Flossing daily



- Thrush (candida albicans)
  - Nystatin
- Xerostomia (dry mouth)
  - Artificial saliva substitute



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ORAL INFLAMMATORY DISEASES

Aphthous stomatitis (canker sores)

- Inflammation of oral cavity
- Triggers
  - Dental work
  - Vitamin B12 or B6, zinc, folate, iron deficiency
  - Irritating foods
  - Stress

Herpes simplex virus type 1 (cold sores)

- Onset provoked by fever or stress
- Oral or topical acyclovir reduces occurrences

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HIATAL HERNIA, PEPTIC ULCER DISEASE, GASTRIC BLEEDING, AND GASTRIC CANCER

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HIATAL HERNIA

Sliding hiatal hernia

- Lower esophagus/stomach slides up through hiatus of diaphragm into thorax
- Condition is worse when lying down

Paraesophageal hernia

- Rarer but serious
- Part of the stomach squeezes through the hiatus and is at risk for strangulation

Most common in

- Smokers
- Those over 50 years old
- Obesity
- Pregnancy

Gastroesophageal reflux disease (GERD) is often secondary

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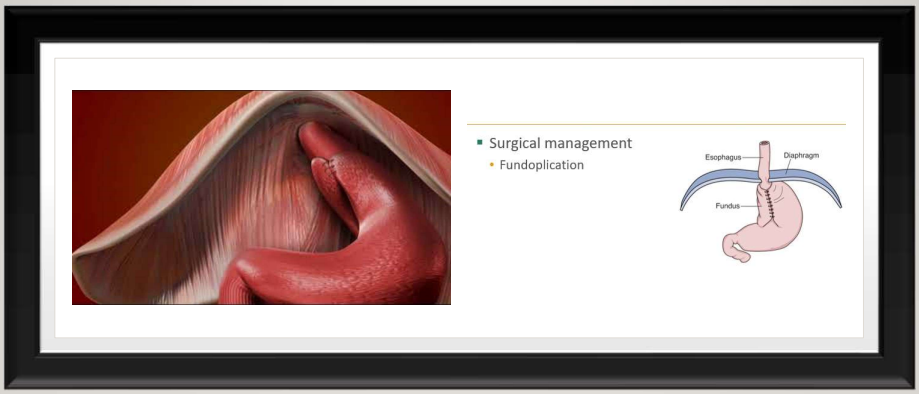

HIATAL HERNIA-SURGICAL INTERVENTION

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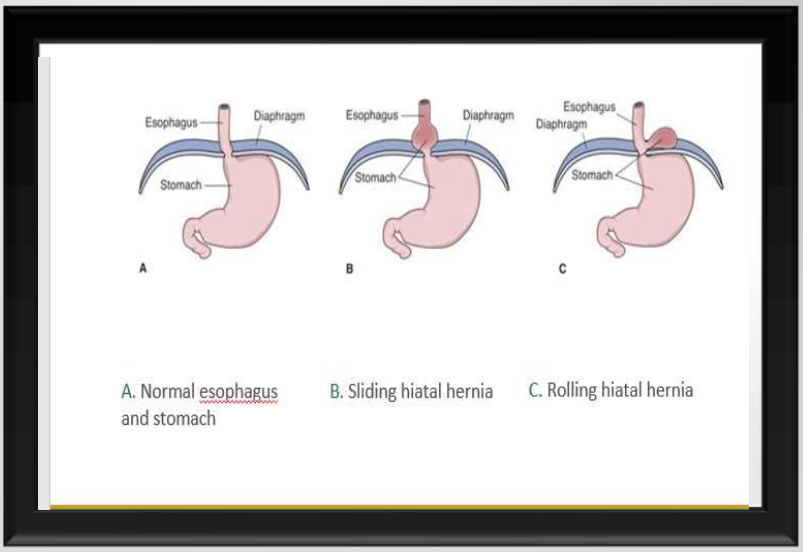
HIATAL HERNIA



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HIATAL HERNIA-SIGNS AND SYMPTOMS, DIAGNOSIS, THERAPEUTIC INTERVENTIONS

- Signs and symptoms
  - None
  - Pain
  - Heartburn
  - Fullness
  - Reflux
- Diagnosis
  - X-ray
  - Endoscopy
  - Fluoroscopy
- Therapeutic interventions
  - Small meals
  - No reclining 1 hour after eating
  - Raise head of bed 6 to 12 inches
  - Avoid
    - Eating 3 hours before bedtime
    - Spicy foods
    - Alcohol, caffeine
    - Smoking

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NURSING CARE-HIATAL HERNIA SURGICAL INTERVENTION

- Nursing care
  - Teaching
  - Preoperative care
  - Postoperative
    - Monitor for dysphagia with eating!
    - Report dysphagia to primary care provider
    - Repair may be too tight

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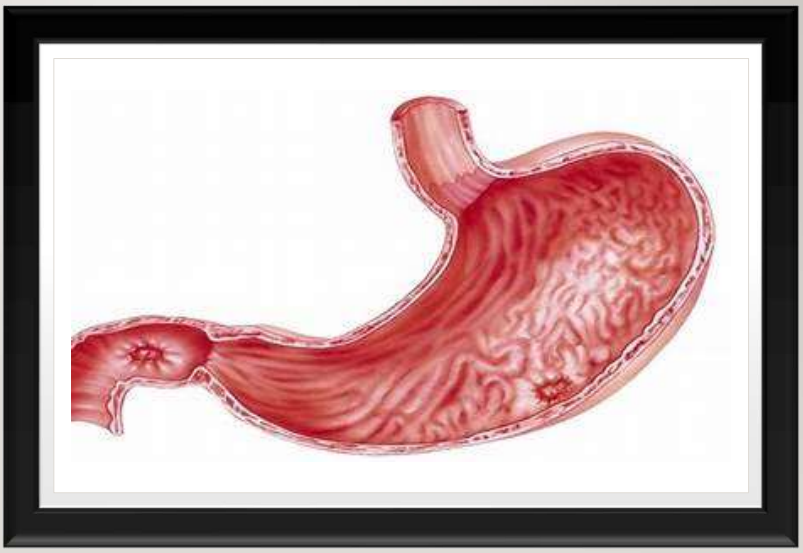
PEPTIC ULCER DISEASE



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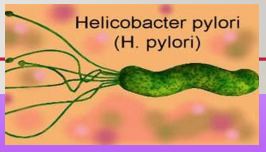
PEPTIC ULCER DISEASE



Erosion of gastrointestinal (GI) lining	Curable	Primary cause: Helicobacter pylori (*H. Pylori*)
Increased risk • Smoking • NSAID use • Alcohol use	**Gastric** • Upper abdominal burning/gnawing pain • Increased 1 to 2 hours after meals or with food	**Duodenal** • Mid-epigastric • Upper abdominal burning/cramping pain • Increased 2 to 5 hours after meal/middle of night • Relieved with food or antacids

1/2 people WW have some level of

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PEPTIC ULCER DISEASE

Signs and symptoms

Anorexia

Nausea/vomiting

Bleeding

Black tarry stools

Complications

Bleeding

Perforation

Obstruction

Diagnostic tests

Biopsy urease test (during endoscopy)

Immunoglobulin G antibody detection test & culture for *H. pylori*

Urea breath test

Upper GI series (barium swallow)

(EGD) Esophagogastroduodenoscopy

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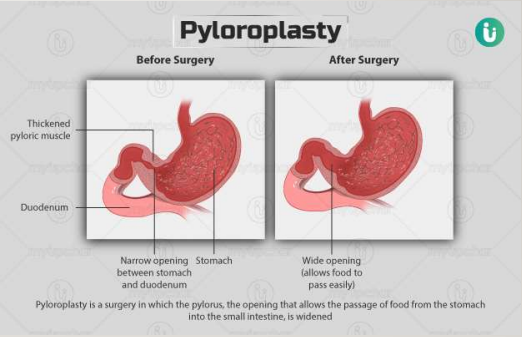
PPI = Proton pump inhibitors (stop stomach juices)

PEPTIC ULCER DISEASE- THERAPEUTIC INTERVENTIONS

- Antibiotics
- PPIs
- H2-receptor antagonists (histamine blockers)
- Bismuth subsalicylate
- Sucralfate (Carafate)
- Antacids

- Treatment
  - Avoid irritants
    - NSAIDs
    - Smoking
    - Alcohol



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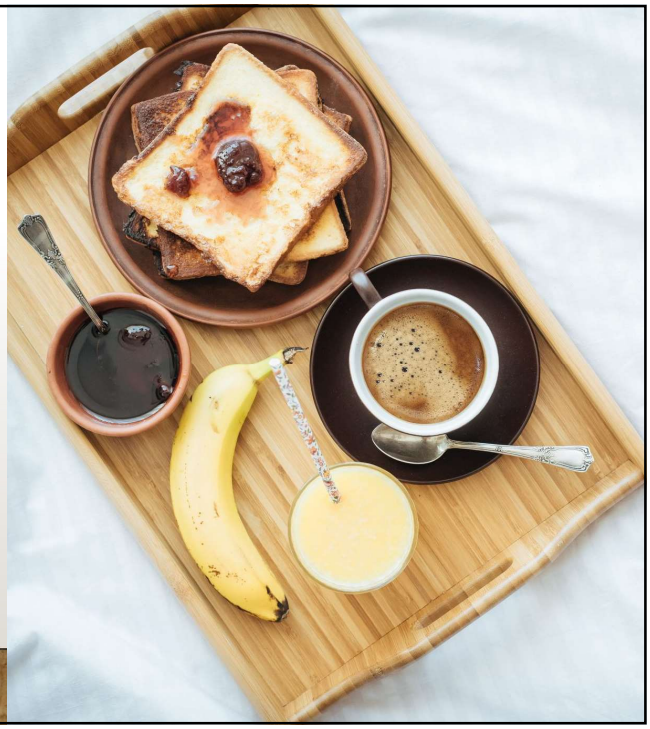
- You are caring for a patient who has a duodenal ulcer. The patient is scheduled for an endoscopy later in the morning. The assistive personnel has just placed the patient's breakfast on the bedside table.
- *What do you do?*



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GASTRIC BLEEDING

From ulcer perforation, tumor, gastric surgery

Occult or observable

- Stool may be black and tarry from blood
- Blood in vomit (Hematemesis)
  - "Coffee grounds"

Signs and symptoms vary by severity

- Mild: Slight weakness or diaphoresis
- Severe: Hypovolemic shock, weak pulse, chills, palpitations
- Treat hypovolemic shock if present.

Therapeutic interventions

- NPO
- IV fluids/blood
- Urinary catheter
- Oxygen
- Acid suppression medications

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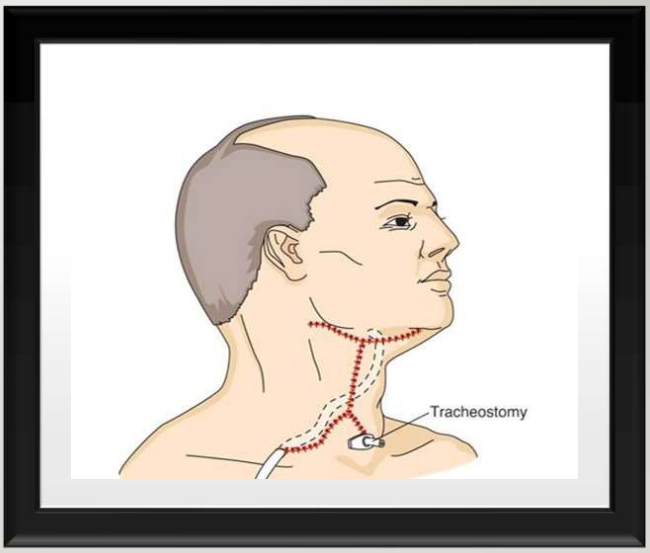
ORAL CANCER- THERAPEUTIC INTERVENTIONS

- Radiation
- Chemotherapy
- Surgery
  - Radical (shown in illustration) or modified neck dissection
- Nursing care
  - Referral: Alcohol/tobacco cessation
  - Preoperative teaching
    - Tracheostomy
    - Communication
  - Postoperative teaching
    - Airway
    - Nutrition



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ORAL CANCER

- Can occur anywhere in mouth
- Curable if detected early
- Highest risk from alcohol or tobacco use
- Signs and symptoms
  - Painless
  - Difficulty in chewing, swallowing, speaking
- Diagnostic tests
  - Biopsies

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ESOPHAGEAL CANCER

Risk factors	Signs and symptoms	Diagnostic tests
• Alcohol, tobacco use • Being overweight or obese • Human papillomavirus • Barrett's esophagus	• Difficulty swallowing • Weight loss • Feeling full • Pain in chest • Food regurgitation	• Biopsy • Endoscopy • Esophagogastroduodenoscopy (EGD) • Esophageal manometry

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ESOPHAGEAL CANCER-THERAPEUTIC INTERVENTIONS

Therapeutic interventions	Therapeutic interventions (continued)	Nursing care

• Radiation
• Chemotherapy
• Surgery
  • Esophagectomy
  • Esophagogastrostomy
  • Esophagoenterostomy
	• Laser therapy
	• Electrocoagulation
	• Inoperable tumor
	  • Stent
	  • Dilation
	  • Brachytherapy
		• Referral: Alcohol/tobacco cessation
		• Postoperative
		  • Airway
		  • Pain management
		  • Swallowing
		  • Nutrition

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GASTRIC CANCER

TypicallyMalignant lesion in stomach

- Malignant lesion in stomach
- Men greater than women
- *H. Pylori* infection risk factor
- Poor prognosis as metastasizes

Signs and symptoms

- No early symptoms
- Late symptoms
  - Weight loss
  - Ulcer type pain
  - Nausea
  - Dysphagia
  - Anemia

Diagnostic tests

- Endoscopy with biopsies

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GASTRIC CANCER-THERAPEUTIC INTERVENTIONS

- Surgery
- Chemotherapy
- Radiation
- Biologic therapy
  - Boosts immune system

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GASTRIC SURGERIES

Know these

Subtotal gastrectomy
- Partial removal of the stomach

Total gastrectomy
- Total removal of the stomach

Gastroduodenostomy (Billroth 1)
- Distal stomach removed
- Anastomosed to duodenum
- Treats gastric problems

Gastrojejunostomy (Billroth 2)
- More distal stomach removed
- Anastomosed to jejunum
- Treats duodenal problems

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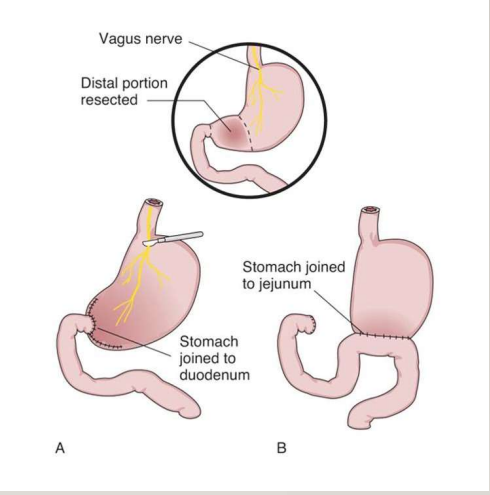
SUBTOTAL GASTRECTOMY



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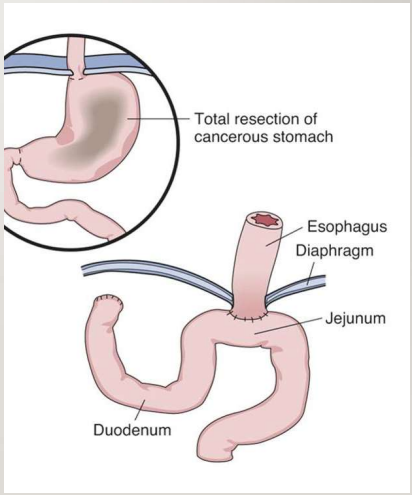
TOTAL GASTRECTOMY

- Extensive gastric cancer
- Anastomosis of esophagus to jejunum



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- Nursing care:
  - Monitor vital signs.
    - Monitor respiratory status.
  - Control pain
  - Monitor intake and output
  - Check the incisional site

- NG tube care:
- Ambulate early.
- Monitor abdominal status.
- Patient education
- Expect NG Tube to suction
  - Monitor for Color and Amount
  - Bleeding, increased amount drainage, abdominal distention
    - Report to HCP

Complications:

Surgical site leak

Gastric distention

Dumping syndrome

Nutritional problems

Pernicious anemia B12 loss

Steatorrhea

Pyloric obstruction-pyloroplasty

GASTRIC SURGERY

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GASTRIC SURGERY-DUMPING SYNDROME

- Common complication of gastric surgeries
- **Rapid entry of food into jejunum** without mixing with digestive juices
- Food draws fluid, electrolytes, glucose from blood rapidly
- Rapid shift causes **symptoms within 5-30 minutes of eating:**
  - Dizziness
  - Tachycardia
  - Fainting
  - Sweating
  - Nausea
  - Diarrhea
  - Abdominal cramping and fullness
- Blood glucose increases-increases insulin...
- Increased insulin causes **hypoglycemia about 2 hours later**
- **Symptoms include**
  - Weakness
  - Sweating
  - Anxiety
  - Shakiness
  - Confusion
  - Tachycardia
- **May last up to 6 months** following gastric surgery
- **Nursing care**
  - Encourage glucose food/drink (candy/juice)
  - Encourage patients to eat 6 small meals a day
  - Eat meals high in protein, high fiber complex carbs, and no simple sugars
  - Lay down after meals for 30-60 minutes

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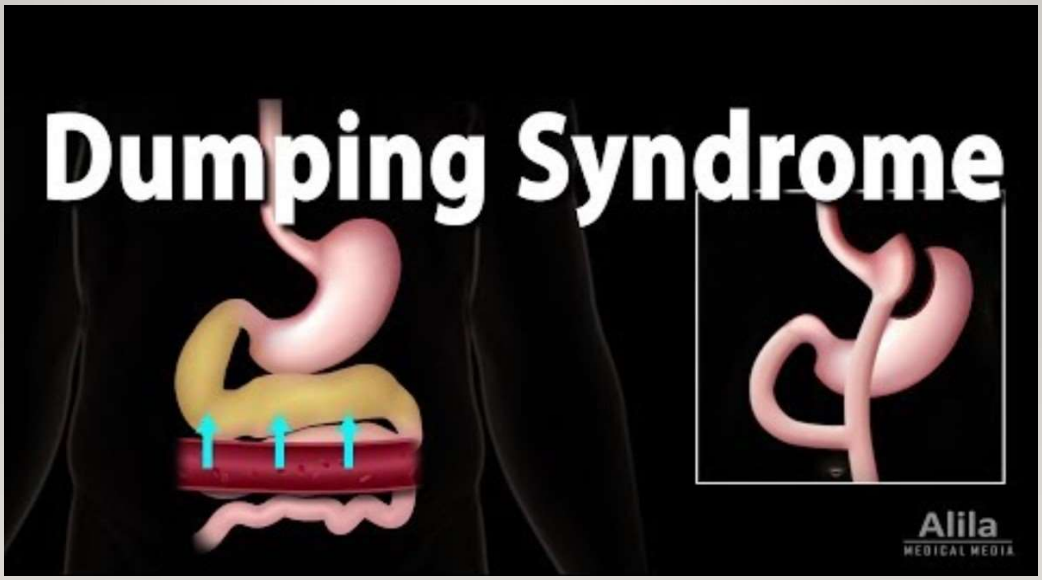

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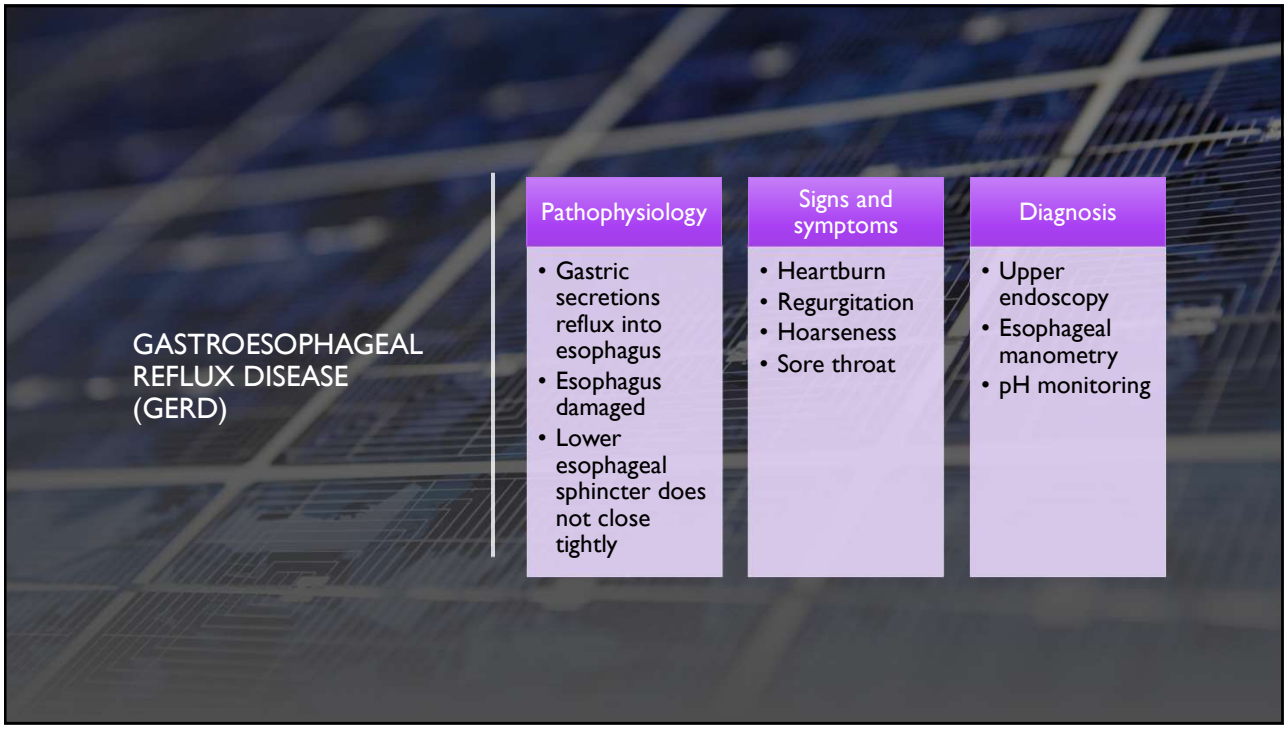

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GASTROESOPHAGEAL REFLUX DISEASE-COMPLICATIONS

- Respiratory
  - Asthma
  - Aspiration pneumonia
  - Bronchospasm
  - Laryngospasm
  - Chronic bronchitis
- Barrett's esophagus (precancerous)

Barrett's Esophagus

- GERD can change epithelium of esophagus.
- Precancerous
- Esophageal cancer risk factor
- Treatment
  - Radiofrequency ablation removes Barrett's tissue

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GASTROESOPHAGEAL REFLUX DISEASE-THERAPEUTIC INTERVENTIONS

Lifestyle changes

Medications

- Antacids
- Histamine-2 (H2)-receptor antagonists
- Proton pump inhibitors (PPIs)

Transoral incisionless fundoplication

- Esophy X

Endoscopic procedures

- Radiofrequency waves
- Flexible band of magnet around lower esophagus

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GASTROESOPHAGEAL REFLUX DISEASE-NURSING CARE

- Education
  - Lose weight.
  - Eat a low-fat, high-protein diet.
  - Avoid smoking, caffeine, peppermint, alcohol.
  - Avoid trigger foods.
  - Sleep with bed elevated 4 to 6 inches.
  - Avoid eating 3 hours before bedtime.

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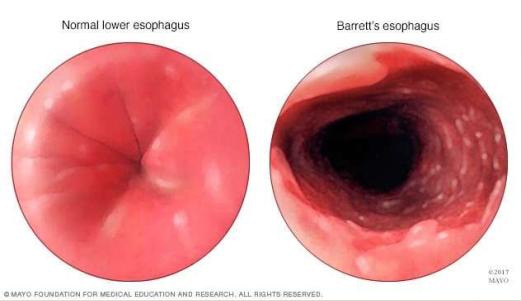
BARRETT'S ESOPHAGUS

- Inflammation of esophagus
- Can result from esophagitis due to chronic acid reflux (GERD)
- Changes in epithelium of esophagus causes precancerous lesion
- Can be removed
  - 30-minute outpatient endoscopic procedure-ablation of lesion
- Normal tissue return and risk of cancer is removed



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MALLORY-WEISS TEAR

Pathophysiology	Signs and symptoms	Diagnosis
Longitudinal tear in mucous membrane of esophagus at stomach junction Tears from sudden, powerful, or prolonged force Risk factors • Hiatal hernia present • Alcohol use	Bright red, bloody emesis Bloody or tarry stools	Esophagogastroduodenoscopy (EGD) Hemoglobin and hematocrit

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MALLORY-WEISS TEAR-THERAPEUTIC INTERVENTIONS

Therapeutic interventions	Nursing care

• Self heals
• PPIs-proton pump inhibitors
• Antiemetics
• Endoscopy to control bleeding
  • Epinephrine injection-stop bleeding
  • Endoclips-stop bleeding
• Avoid alcohol
	• Report bleeding
	• Teaching
	  • Avoid alcohol.
	  • Medications

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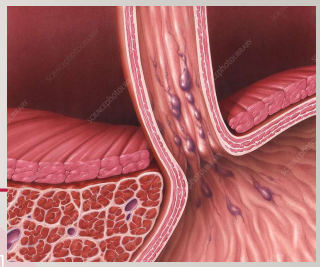
ESOPHAGEAL VARICES



DILATED BLOOD VESSELS IN THE ESOPHAGUS

RUPTURE CAN BE LIFE-THREATENING

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ACUTE OR CHRONIC GASTRITIS

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ACUTE GASTRITIS

Inflammation of the stomach mucosa

Acute or chronic

Pathophysiology

Protective mucosal barrier broken down

Autodigestion

Microorganisms

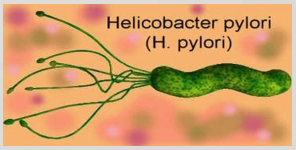
- Helicobacter Pylori
- Salmonella

Medications

- Aspirin
- NSAIDS
- Corticosteroids
- Digatalis

Severe

- Perforation
- Scarring



Signs and symptoms

Abdominal pain

Nausea, vomiting

Abdominal tenderness

Feeling of fullness

Reflux

Belching

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ACUTE GASTRITIS-THERAPEUTIC INTERVENTIONS

- Treat cause.
- Avoid alcohol.
- Avoid irritating foods.
- Antacids
- Antiemetics
- Histamine 2 antagonists

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CHRONIC GASTRITIS

Autoimmune gastritis
- Fundus
- Asymptomatic or dyspepsia or pain after meals
- Leads to pernicious anemia

Environmental Gastritis
- From infection with *H. pylori*

Signs and symptoms
- Asymptomatic, anorexia, heartburn, belching, sour taste, nausea/vomiting

Treatment
- Antibiotics
- PPIs and/or H2-receptor antagonists

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STRESS INDUCED GASTRITIS

- Stress ulcers
- Critically ill at risk
- Ischemia damaging mucous barrier
- Acid secretions create ulcerations
- Treatment
  - H2 Blockers
  - Quick trauma care
  - Prophylactic PPIs (oral and IV)

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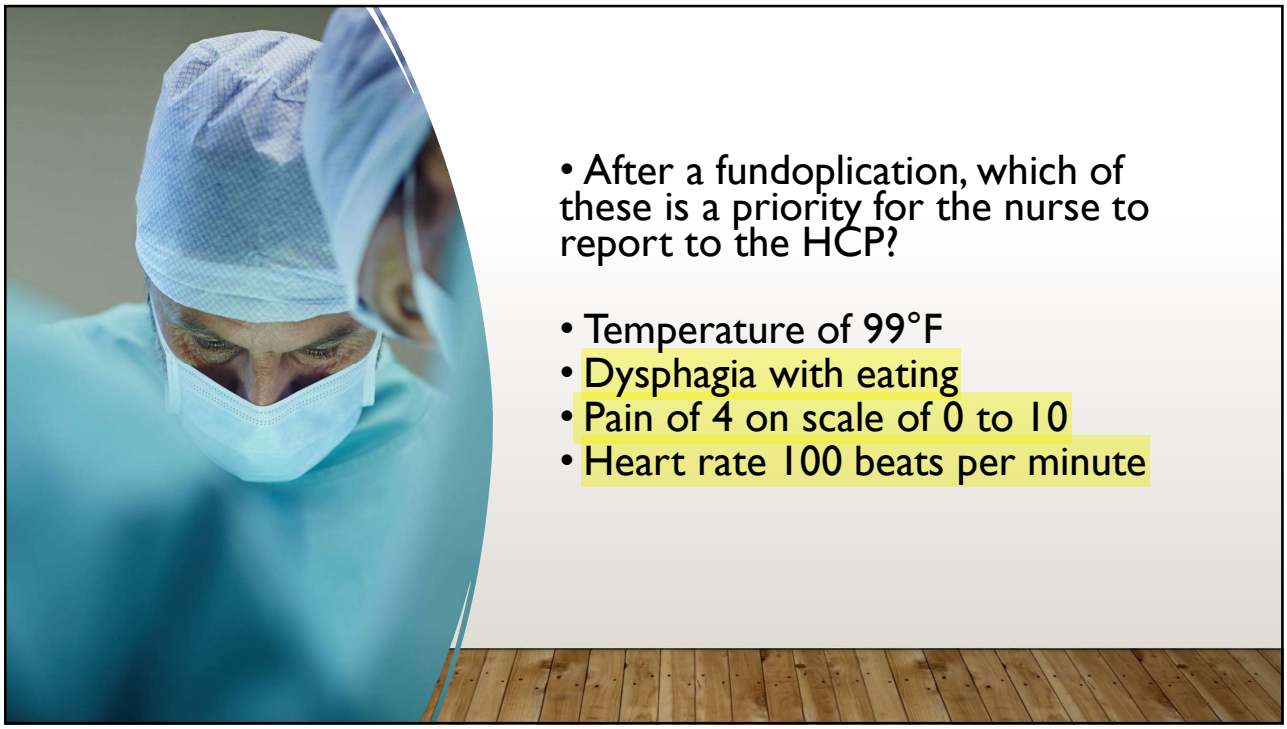
- Your patient has had a Roux-en-Y procedure for obesity. He reports that he usually has diarrhea, sweating, and dizziness about 30 minutes after eating.
- *What do you do?*

62


• After a fundoplication, which of these is a priority for the nurse to report to the HCP?
• Temperature of 99°F
• Dysphagia with eating
• Pain of 4 on scale of 0 to 10
• Heart rate 100 beats per minute

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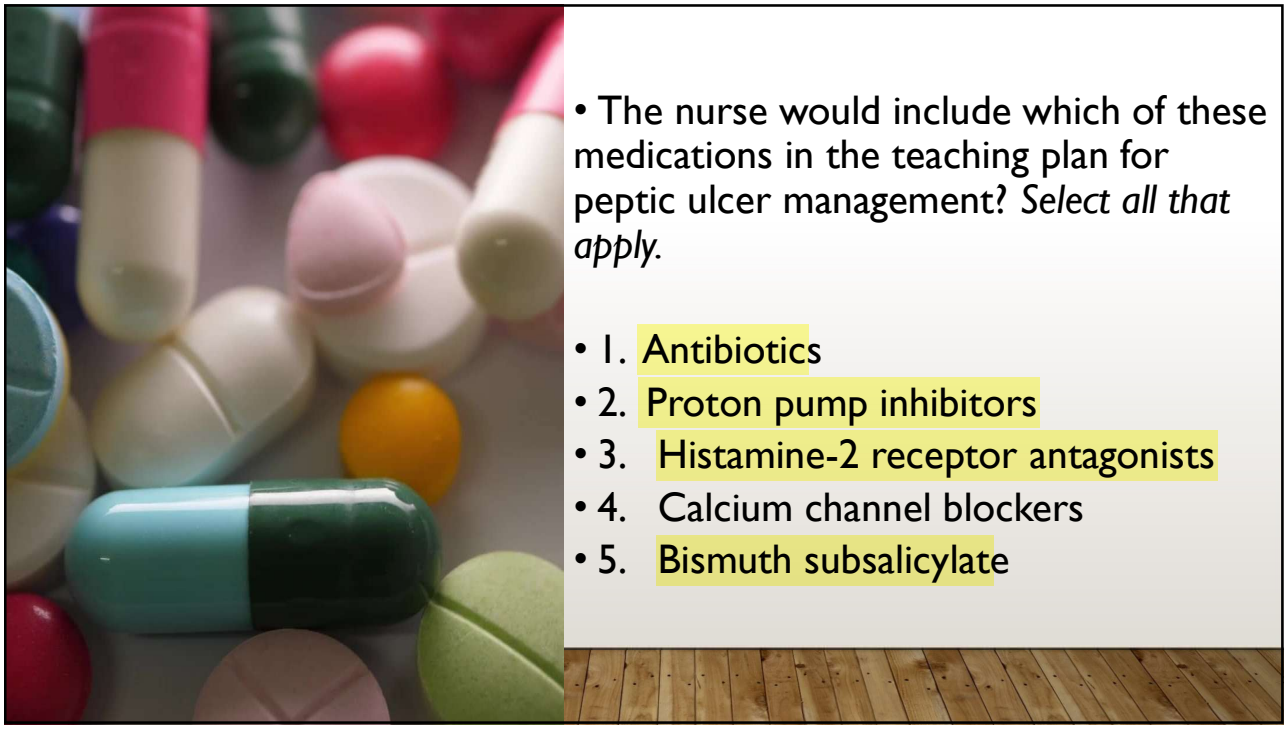
• The nurse would include which of these medications in the teaching plan for peptic ulcer management? *Select all that apply.*
• 1. Antibiotics
• 2. Proton pump inhibitors
• 3. Histamine-2 receptor antagonists
• 4. Calcium channel blockers
• 5. Bismuth subsalicylate

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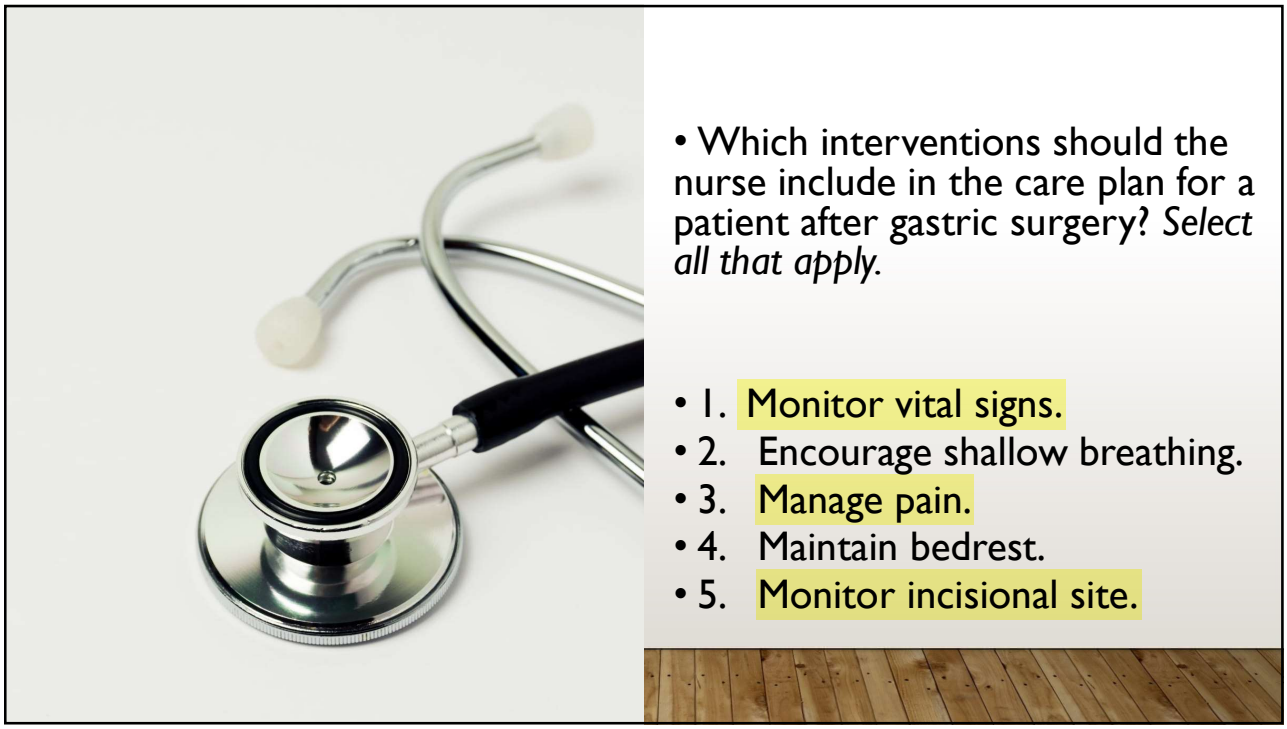
• Which interventions should the nurse include in the care plan for a patient after gastric surgery? *Select all that apply.*
• 1. Monitor vital signs.
• 2. Encourage shallow breathing.
• 3. Manage pain.
• 4. Maintain bedrest.
• 5. Monitor incisional site.

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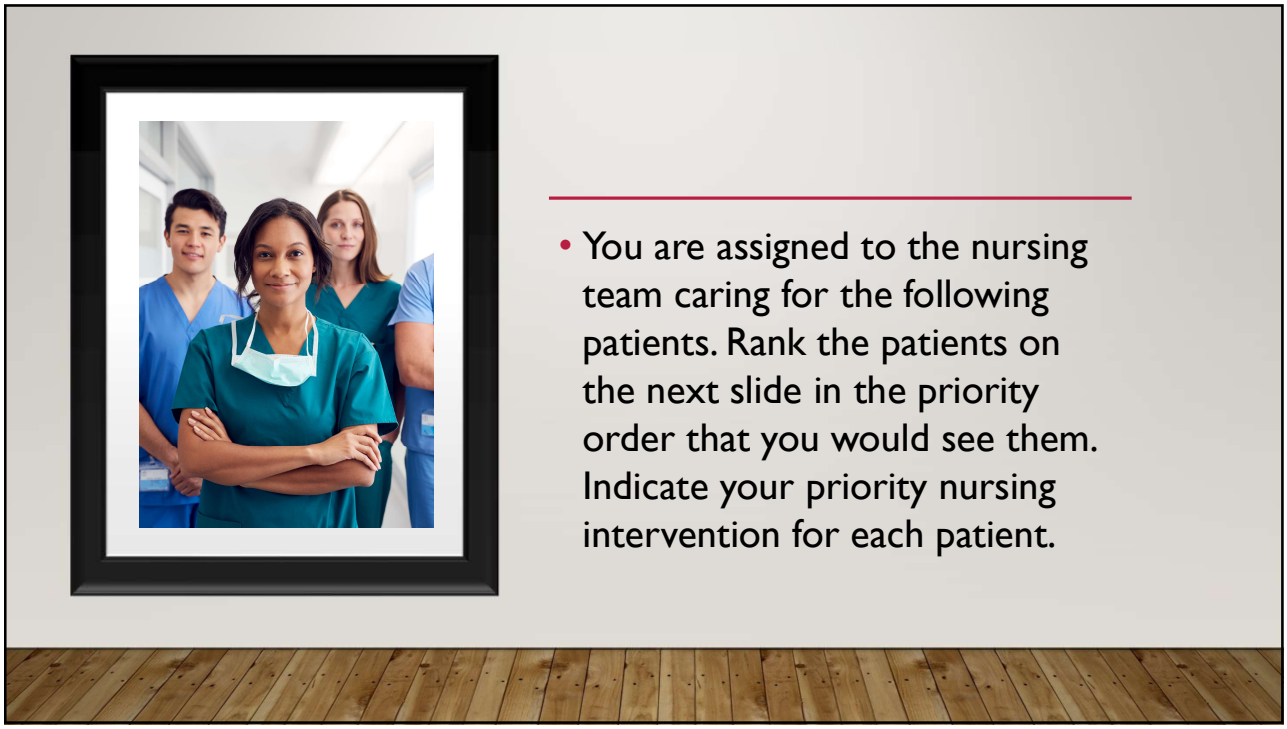
• You are assigned to the nursing team caring for the following patients. Rank the patients on the next slide in the priority order that you would see them. Indicate your priority nursing intervention for each patient.

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Mrs. Wilson had a gastric bypass 4 hours ago and reports nausea.

Mr. Lee has gastritis and reports that he vomited. It was red-colored.

Mr. Morris is admitted with a Mallory-Weiss tear. His blood pressure is 118/68.

Mr. Swanson is 1-day post-op for a total gastrectomy for gastric cancer and reports pain of 6 on a pain scale of 0 to 10.

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