وزارة التعليم العالي والبحث العلمي
الجامعة التقنية الجنوبية
المعهد التقني العمارة
قسم التمريض

الحقيبة التدريسية لمادة

تمريض الباطني
الصف الاول

تدريسي المادة

أ.م. مصطفى سالم عبدالرضا

الفصل الدراسي الأول

جدول مفردات مادة تمريض الباطني

الاسبوع	المفردات
١	**Health and nursing process**
٢	**Appendicitis and Hernia**
٣	**Cholecystitis, Hepatitis and Cirrhosis**
٤	**Goiter and Diabetes Mellitus (DM)**
٥	**Glomerulonephritis**
٦	**Renal Failure**
٧	**Blood and anemia**
٨	**Congenital Heart Disease**
٩	**Valvular Heart Disease**
١٠	**Angina Pectoris**
١١	**Myocardial Infarction (MI)**
١٢	**Cardiac Care Unit**
١٣	**Respiratory failure**
١٤	**Acute Bronchitis and Chronic Bronchitis**
١٥	**Asthma and Pneumonia**

(يذكر كما في مفردات المنهج او الخطط الدراسية)

الهدف من دراسة مادة تمريض الباطني (الهدف العام): اكساب الطالب المعارف والمهارات لتقديم رعاية تمريضية شاملة في المستقبل

تهدف دراسة مادة التمريض الباطني للصف الاول الى:

١) فهم اساسيات الامراض الباطنية
٢) تطبيق عملية التمريض
٣) تهيئة الطالب للتعامل مع امراض متعددة

(تذكر الأهداف الموجودة في الخطط الدراسية او مفردات المنهج)

الفئة المستهدفة:

طلبة الصف الاول / قسم التمريض

التقنيات التربوية المستخدمة:

١. سبورة واقلام
٢. السبورة التفاعلية
٣. عارض البيانات Data Show
٤. جهاز حاسوب محمول Laptop
٥. .....
٦. ....
٧. .....

الاسبوع الأول

الهدف التعليمي (الهدف الخاص لكل للمحاضرة):

وعلى التدريسي ان يعمل على تحقيقها في كل محاضرة للحصول على مخرجات تُحقق الأهداف العامة للمادة

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مدة المحاضرة: يذكر بالساعات (عدد الساعات للشعبة الواحدة في الاسبوع بضمنها العملي إذا كان جزء من النظري).

الأنشطة المستخدمة:

١. أنشطة تفاعلية صفية
٢. أسئلة عصف ذهني
٣. أنشطة جماعية (إذا تطلب الامر)
٤. واجب بيتي
٥. واجب الكتروني (ويفضل انشاء صفوف الكترونية Classrooms لدمج التعليم الحضوري بالتعليم الالكتروني حسب التوجهات الحديثة للتعليم والتعلم)
٦. ....
٧. .....

أساليب التقويم:

١. التغذية الراجعة الفورية من قبل التدريسي (التقويم البنائي).
٢. اشراك الطلبة بالتقويم الذاتي (تصحيح اخطائهم بأنفسهم).
٣. التغذية الراجعة النهائية (التقويم الختامي)، ويقصد به حل الأسئلة المعطاة كنشاط صفي في نهاية المحاضرة.
٤. .....
٥. ....
٦. .....

Health: World Health Organization (WHO) defines health as a " state of completes physical, mental and social wellbeing, not merely the absence of disease or infirmity.

Factors affecting health

1. Genetics
2. Cognitive Abilities
3. Demographic Factors
4. Geographic Locale
5. Culture
6. Lifestyle and Environment
7. Health Beliefs and Practices
8. Previous Health Experiences
9. Spirituality
10. Support Systems

Nursing Process

The nursing process is a systematic method for assessing health status, diagnosing health care needs, formulating a plan of care, initiating plan and evaluating the effectiveness of plan. The nursing process consists of five interrelated phases:-

1. Assessment
2. Diagnosis
3. Planning
4. Implementation
5. Evaluation

1. Assessment :- This refers to a systematic collection of data, to assist in identifying needs and problems. Data are collected in a systematic fashion, utilizing the interview or nursing history, physical examinations, laboratory
results and other resources.

2. Diagnosis :- Nursing diagnosis is a clinical judgment about individual family or community responses to actual and potential health problems

and life processes. During this phase, the data collected during assessment are critically analyzed and interpreted.

3. Planning: - Planning is a systematic approach in developing a plan of action based on a careful assessment. Strategies are developed to prevent, minimize or connect the problems identified in the nursing diagnosis. It consists of several steps including establishing priorities, setting objectives, writing interventions, recording outcomes of nursing interventions in an organized fashion to complete the nursing care plan.

4. Implementation:- It refers to carry out a plan that is based on careful assessment of need. It is the initiation and completion of action necessary to achieve the outcomes or objectives.

5. Evaluation:- It is an ongoing process that determines the extent to which the goals care has been achieved. The nurses assess the progress of the patient, institute corrective measures if required, and revise the nursing care plan.

Advantages of nursing process : The nursing process helps the nurse and the nursing in many ways:

1. Create a health data base of a patient.
2. Identify actual or potential health problems of a patient.
3. Establish priorities of nursing actions for providing proper services to the patients.
4. Develop planned organized and individualized nursing care.
5. Increase the effectiveness of nursing care.

Appendicitis

Appendicitis occurs when the appendix becomes inflamed. It's the most common major surgical emergency. The appendix may harbor good bacteria that protect the gut and play a role in the immune system. Although it can occur at any age, it more commonly occurs between the ages of 10 and 30 years.

Causes

1. Mucosal Ulceration
2. Fecal Mass

3. Stricture
4. Barium Ingestion
5. Viral Infection.

Signs and Symptoms

1. Abdominal pain in the right lower quadrant
2. Rebound tenderness
3. Guarding (protecting the abdomen from painful exam)
4. Rigidity of the abdomen
5. Fever
6. Nausea, vomiting, loss of appetite

Laboratory Tests and Diagnostic Procedures

1. Diagnosis is based on a complete physical examination and laboratory and imaging tests.
2. CT scan shows enlarged appendix.
3. Ultrasound may show enlarged appendix.
4. Elevated white blood cell count (WBC).

Medical Management

1. Surgery (conventional or laparoscopic) is indicated if appendicitis is diagnosed and should be performed as soon as possible to decrease risk of perforation.
2. Administer antibiotics and IV fluids until surgery is performed.
3. Analgesic agents can be given after diagnosis is made.

Complications of Appendectomy

1. The major complication is perforation of the appendix, which can lead to peritonitis, abscess formation (collection of purulent material), or portal pylephlebitis.
2. Perforation generally occurs 24 hours after the onset of pain. Symptoms include a fever of 37.7C or greater, a toxic appearance, and continued abdominal pain or tenderness.

Nursing Care

1. Nursing goals include relieving pain, preventing fluid volume deficit, reducing anxiety.
2. Preoperatively, prepare patient for surgery, start IV line, administer antibiotic.
3. Postoperatively, place patient in high Fowler's position, give narcotic analgesic as ordered, administer oral fluids, give food as desired on day of surgery (if tolerated).
4. If a drain is left in place at the area of the incision, monitor carefully for signs of intestinal obstruction, secondary hemorrhage, or secondary abscesses.

Hernia

Hernia is the protrusion of an organ through its containing wall, could be either congenital or acquired. Its divided into **External** hernias which are common and
Internal hernias which are rare.

Types

External abd. Hernias → inguinal
→ femoral
→ umbilical
→ incisional
→ epigastric
Internal abd. Hernias → diaphragmatic
→ paraduodenal
→ paracaecal
→ iatrogenic internal

Predisposing factors

A hernia occurs because of
(a) weakness or defect in the abdominal wall.
(b) positive intra-abdominal pressure (IAP) (which is often raised) forces the viscus into the defect.

Complications

Most hernias are uncomplicated at presentation. The three important complications of hernias are, in order of progression,

1. **Irreducibility**: when the contents of the sac of the hernia can't be replaced into the abdomen.

2. Obstruction: a loop of the bowel is trapped within the sac of the hernia in such a way that the lumen but not the blood supply is obstructed.

3. Strangulation: the blood supply to the content of the sac has been cut, so they are dead or dying, It is acutely tender.

Treatment

Uncomplicated hernias require either no treatment, support with a truss, or operative treatment, whereas complicated hernias always require surgery, often urgently.

Nursing Care

1. Teach patient to wear truss pad with hernia belt during waking hours.
2. Teach patient to avoid increasing intra-abdominal pressure for 2 to 3 weeks postoperatively (avoid coughing, straining, heavy lifting).

Cholecystitis

An inflammation of the gallbladder, often accompanied by the formation of gallstones (cholelithiasis), is cholecystitis. The inflammation may be either acute or chronic in nature.

Signs and Symptoms

1. Upper abdominal, epigastric, or right upper quadrant abdominal pain which may radiate to right shoulder.
2. Nausea and vomiting, especially following fatty foods.
3. Loss of appetite.
4. Fever.
5. Pruritis (itching) of skin due to build-up of bile salts.
6. Clay-colored stools and Dark, foamy urine.
7. Jaundice—yellowish skin, sclera and mucous membrane discoloration.

Laboratory Tests and Diagnostic Procedures

1. WBC increased indicates inflammation
2. Direct, indirect, and total serum bilirubin
3. Serum cholesterol (greater than 200 mg/dL)
4. Ultrasound
5. abdominal X-ray or CT scan
6. Cholangiography

Complications

1. Obstruction of the bile duct.
2. Bile peritonitis.
3. Post-cholecystectomy syndrome (PCS).

Treatment

1. Low-fat diet.
2. Intravenous fluid replacement for vomiting and antiemetic for control of nausea and vomiting (Meclodine).
3. Replace fat-soluble vitamins (A, D, E, K) as needed.
4. Administer analgesics for adequate pain control.
5. Administer antibiotics for acute symptoms.
6. Surgical removal of gallbladder.

Nursing Care

1. Monitor vital signs for changes in temperature, pulse rate, respiratory rate, and blood pressure.
2. Assess abdomen for bowel sounds, distention, and tenderness.
3. Assess pain level for adequate pain control.
4. Assess postoperative wound for drainage, signs of infection.
5. Monitor T-tube drainage in postoperative open cholecystectomy patients; empty and record at least every 8 hours.
6. Advance diet to low-fat diet postoperatively as tolerated

Hepatitis

Hepatitis is an inflammation of the liver cells. This is most commonly due to a viral cause which may be either an acute illness or become chronic. The disease may also be due to exposure to drugs or toxins.

There are five major categories of viral hepatitis:
1. Hepatitis A virus (HAV)
2. Hepatitis B virus (HBV)
3. Hepatitis C virus (HCV)
4. Hepatitis D virus (HDV)
5. Hepatitis E virus (HEV)

Signs and Symptoms

Acute hepatitis:

1. Malaise
2. Nausea and vomiting
3. Diarrhea or constipation
4. Low-grade fever
5. Dark urine due to change in liver function
6. Jaundice due to liver compromise
7. Tenderness in right upper quadrant of abdomen
8. Hepatomegaly
9. Arthritis, glomerulonephritis

Chronic hepatitis:

1. Asymptomatic with elevated liver enzymes
2. Symptoms as acute hepatitis
3. Cirrhosis due to altered liver function
4. Ascites due to decrease in liver function, increased portal hypertension
5. Bleeding from esophageal varices
6. Encephalopathy due to diminished liver function
7. Bleeding due to clotting disorders
8. Enlargement of spleen

Complications

1. Chronic hepatitis
2. Fulminating hepatitis
3. Cirrhosis of the liver
4. Liver cancer
5. Liver failure

Treatment

1. Avoid medications metabolized in the liver and avoid alcohol.
2. Remove or discontinue causative agent if drug-induced or toxic hepatitis.
3. IV fluids if vomiting during acute hepatitis.
4. High-calorie diet; breakfast is usually the best tolerated meal.
5. Liver transplantation.

Nursing Care

1. Monitor vital signs.
2. Assess abdomen for bowel sounds, tenderness, ascites.
3. Plan appropriate rest for patient in acute phase.
4. Monitor intake and output.
5. Assess mental status for changes due to encephalopathy.
6. Assist patient to:

a) Plan palatable meals; remember that breakfast is generally the best tolerated meal.

b) Avoid smoking areas—intolerance to smoking.

Cirrhosis

Cirrhosis is a chronic disease characterized by replacement of normal liver tissue with diffuse fibrosis that disrupts the structure and function of the liver.

❖ Cirrhosis, or scarring of the liver, is divided into three types: **alcoholic**, most frequently due to chronic alcoholism and the most common type of cirrhosis;
postnecrotic, a late result of a previous acute viral hepatitis; and
biliary, a result of chronic biliary obstruction and infection (least common type of cirrhosis).

Signs And Symptoms

1. Fatigue.
2. Weight loss, abdominal pain, distention.
3. Pruritus (severe itching of skin).
4. Confusion or difficulty thinking.
5. Personality changes and sometimes depression.

6. Ascites.
7. Jaundice.

Lab. Tests and Diagnosis

1. Liver function tests (AST, ALT, Bilirubin) elevated.
2. Ultrasound scanning
3. CT scan
4. MRI
5. Radioisotope liver scans

Medical Management

1. Treatment includes antacids, vitamins and nutritional supplements, balanced diet; diuretics (for ascites); avoidance of alcohol.
2. Colchicine may increase the length of survival in patients with mild to moderate cirrhosis.

Nursing Care

1. Weigh patient daily.
2. Assess peripheral edema.
3. Assess heart and lung sounds for excess fluid.
4. Elevate head of bed 30 degrees or greater to ease breathing.
5. Elevate feet to decrease peripheral edema.
6. Monitor for signs of bleeding or bruising.
7. Monitor level of consciousness, orientation, recent and remote memory, behavior, mood, and affect.

Goiter

A lack of iodine in the patient's diet (endemic, simple goiter) causes the thyroid gland to become enlarged. This is seen less today because iodine is added to table salt.

Signs And Symptoms

1. Difficulty in swallowing (dysphagia) due to a large thyroid pressing on the esophagus.
2. Enlarged thyroid gland.

3. Respiratory distress from the large gland, causing pressure on the trachea.
4. A tight feeling in the throat from a large gland.
5. Coughing.

Lab. Tests and Diagnosis
1. Decreased or normal serum T4 level.
2. Increased serum TSH.
3. A scan of the thyroid by a radioactive isotope.
4. Ultrasound.

Treatment
1. If increased TSH, administer hormone replacement with levothyroxine (T4), dessicated thyroid, or liothyronine (T3).
2. If the thyroid gland is overactive, then administer small doses of Lugol's solution or potassium iodide solution.
3. If the simple goiter cannot be reduced through medication, then a thyroidectomy is performed during which all or part of the thyroid is removed.

Nursing Care
1. Avoid goitrogenic foods or drugs in sporadic goiter since they make thyroid hormone production.
2. Use iodized salt to prevent and treat endemic goiter, since the thyroid needs iodine to make thyroid hormone.
3. Explain to patient:
a) The need for life-long thyroid replacement after thyroidectomy and radioactive iodine.
b) The need for intermittent lab work to monitor the thyroid.
c) Visits to the primary care practitioner to monitor size of thyroid gland.

Diabetes Mellitus (DM)
Diabetes mellitus is a group of metabolic disorders characterized by elevated levels of blood glucose (hyperglycemia) resulting from defects in insulin secretion, insulin action, or both.

Types of Diabetes

1. **Type 1** (Insulin-Dependent Diabetes Mellitus) :

It results from a decreased sensitivity to insulin (insulin resistance) or from a decreased amount of insulin production. Type 1 diabetes has a sudden onset, usually before the age of 30 years.

2. **Type 2** (Non–Insulin-Dependent Diabetes Mellitus) :

It results from a decreased sensitivity to insulin (insulin resistance) or from a decreased amount of insulin production. Type 2 diabetes occurs most frequently in patients older than 30 years and in patients with obesity.

3. **Gestational DM** (during pregnancy).

Signs and Symptom

1. Hyperglycemia – blood glucose level usually greater than 250 mg/dL.
2. Polyuria (excess urine production and frequency).
3. Polydipsia (excessive thirst) due to dehydration.
4. Polyphagia (excessive hunger and eating).
5. Other manifestations can include; acetone/fruity breath odor due to accumulation of ketones, headache, nausea, vomiting, abdominal pain, inability to concentrate, decreased level of consciousness, and seizures leading to coma.

Lab. Tests and Diagnosis

1. Manifestations of diabetes plus casual blood glucose concentration greater than 200 mg/dL (without regard to time since last meal).
2. Fasting blood glucose greater than 126 mg/dL.

Complications

1. Hypoglycemia
2. Diabetic Ketoacidosis
3. Macrovascular (large vessel) disease: affects coronary, peripheral vascular, and cerebral vascular circulations.
4. Microvascular (small vessel) disease: affects the eyes (retinopathy) and kidneys (nephropathy).
5. Neuropathic disease: affects sensory motor and autonomic nerves.

Medical Management

The main goal of treatment is to normalize insulin activity and blood glucose levels to reduce the development of vascular and neuropathic complications, and
its occur through:

1. Insulin treatments (rapid, short, intermediate, and long-acting).
2. Medications (Metformin (Glucophage), sulfonylureas) for hyperglycemia and administer glucagon subcutaneous or IM if hypoglycemia.
3. Nutritional Management.

Nursing Care

Educate the patient about:

1. The disease and the importance of maintaining normal glucose levels and teach importance of daily medications.
2. Diet and food choices, including portion sizes.
3. Encourage exercise.
4. Teach self-injection of insulin (Type I).
5. Prevention of complications, such as hyperglycemia and hypoglycemia.
6. Explain hypoglycemia signs and symptoms and interventions.
7. Teach the management of hypoglycemia: glucose tablets, or 4 ounces of fruit juice, several hard candies, or a small amount of a carbohydrate.
8. Explain the signs and symptoms of hyperglycemia: fatigue, headache, blurry vision, dry itchy skin.

Glomerulonephritis

Glomerulonephritis is an inflammation of the glomerular capillaries, usually following a streptococcal infection. It is an immune complex disease, not an infection of the kidney, exists as an acute, and chronic disease.

Signs and Symptoms

1. Hematuria
2. Peripheral edema
3. Elevated blood pressure

4. Oliguria-decrease in urine output
5. Nausea, vomiting, loss of appetite

Lab.Tests and Diagnosis

1. Urinalysis: proteinuria, hematuria,
2. White blood cell count (elevated indicating inflammation)
3. Kidney biopsy

Complications

1. Uremia
2. pulmonary edema, congestive heart failure, pericarditis
3. Anemia

Treatments

1. Antibiotics, such as Penicillin, Azithromycin.
2. Diuretics to reduce edema.
3. Vasodilators to decrease blood pressure.
4. Corticosteroids to decrease the inflammatory response.
5. Dialysis

Nursing Care

1. Monitor vital signs, monitor intake and output, weigh daily.
2. Observe for common fluid and electrolyte disturbances.
3. Assess extremities for edema.
4. Give emotional support.
5. Educate patient and family about prescribed treatment plan.
6. If long-term dialysis is needed, teach the patient and family about the procedure.

Renal Failure

A decrease in renal function can occur in an acute (sudden) or a chronic (progressive) manner. Acute renal failure can be broken down into pre-renal, renal, and post-renal. Chronic renal failure is an irreversible disease due to damaging effects on the kidneys.

Signs and Symptoms

1. Weight loss, Anemia
2. Peripheral edema
3. Decreased urinary output
4. Uremic pruritis

Treatment; objectives are to restore normal chemical balance and prevent complications until renal tissues are repaired and renal function is restored.

1. Administer intravenous fluids to correct hypovolemia.
2. Administer antibiotics.
3. Catheter to allow for drainage of urine if blockage present.
4. Dialysis.
5. Treat anemia.
6. Restrict potassium, phosphate, sodium, and protein in diet.
7. Monitor electrolyte levels.
8. Control blood pressure, control blood glucose levels.

Nursing Care

1. Monitor vital signs for changes in heart rate or blood pressure.
2. Monitor intake and output.
3. Assess intravenous site for redness, swelling, or pain.
4. Check dialysis access site for signs of infection.
5. Monitor patient very closely.

Blood

Because the hematologic system affects every body system, caring for a patient with a hematologic disorder can be especially challenging. The hematologic system consists of blood — the major body fluid tissue —and the bone marrow.

Blood delivers oxygen and nutrients to all tissues, removes wastes, and performs many other tasks.

Blood consists of various formed elements, or blood cells, suspended in a fluid called plasma, formed elements of the blood include:

• Red Blood Cells (RBCs), or erythrocytes

• White Blood Cells (WBCs), or leukocytes
• Platelets (thrombocytes)

Anemia

Anemia is an abnormally low amount of circulating RBCs, Hgb concentration, or both.

Anemias are due to:

1. Blood loss.
2. Inadequate RBC production.
3. Increased RBC destruction (hemolytic).
4. Deficiency of necessary components such as folic acid, iron, erythropoietin, and/or vitamin B12.

Types ; there are many types for anemia, the common types:

1. **Iron-Deficiency Anemia**; results when the intake of dietary iron is inadequate for hemoglobin synthesis.
2. **Pernicious Anemia**; The body is unable to absorb Vitamin B12, which is needed to make RBC, resulting in a decreased RBC count.
3. **Aplastic Anemia**; results from injury to or destruction of stem cells in the bone marrow.
4. **Hemolytic Anemia**; develops when red blood cells are destroyed faster than bone marrow can replace them, Sickle cell anemia and Thalassemia.

Signs and Symptoms

1. Fatigue, weakness
2. Bone pain
3. Headache
4. Pallor, Jaundice
5. Tachycardia and palpitations
6. Dyspnea
7. Angina
8. Angular stomatitis (ulceration of the corner of the mouth)

Medical Management

Management of anemia is directed toward correcting or controlling the cause of the anemia; if the anemia is severe, the erythrocytes that are lost or destroyed may be replaced with a transfusion of packed RBCs (PRBCs).

Leukemia

Leukemia are cancers of white blood cells or of cells that develop into white blood cells. the white blood cells are not functional. They invade and destroy bone marrow, and they can metastasize to the liver, spleen, lymph nodes, testes, and brain. Leukemia are divided into acute and chronic. The exact cause of leukemia is unknown. Its 2 types **acute** and **chronic**.

Acute Leukemia

1. Acute Lymphoblastic Leukemia (ALL).
2. Acute Myelogenous Leukemia (AML).
3. Acute Monocytic Leukemia.

Chronic Leukemia

1. Chronic Lymphocytic Leukemia
2. Chronic Myelogenous Leukemia

Signs and Symptoms

weakness and fatigue, bleeding, petechiae, pain, headache, vomiting, fever, and infection, hepatomegaly, splenomegaly, enlarged lymph nodes.

Nursing Care

1. Monitor for bleeding.
2. Monitor for infection.
3. Monitor pain control.
4. Small, frequent meals.
5. Teach patients about infection control: avoid others with infection.
6. Explain to the patient: Use an electric razor and soft toothbrush.

Congenital Heart Disease

Congenital heart disease occurs in approximately 8 in 1000 live births. Although divided into cyanotic and a cyanotic.

1. Ventricular Septal Defect.
2. Atrial Septal Defect.
3. The Patent Ductus Arteriosus.
4. Fallot's Tetralogy.

Valvular Heart Disease

Valvular heart disease describes an abnormality or dysfunction of any of the heart's four valves: the mitral and aortic valves (left side) and the tricuspid and pulmonic valves (right side).

- ❖ Valvular heart disease can have **Congenital** or **Acquired** causes.
- ❖ Congenital valvular heart disease can affect all four valves and cause either stenosis or insufficiency.

1. Stenosis – Narrowed opening that impedes blood moving forward.
2. Insufficiency – Improper closure – some blood flows backward.

a) Mitral Stenosis
b) Mitral Insufficiency
c) Aortic Stenosis
d) Aortic Insufficiency
e) Pulmonary Stenosis

- ❖ Acquired valvular heart disease is classified as one of three types:

1. Degenerative Disease
2. Rheumatic Disease
3. Infective Endocarditis

Angina Pectoris

A narrowing of blood vessels to the coronary artery, results in inadequate blood flow through blood vessels of the heart muscle, causing chest pain. Pain can occur at rest or after exertion, excitement, or exposure to cold—due to increased oxygen demands or vasospasm. Usually relieved by rest.

- ❖ There are three types of angina:

1. **Stable angina**; occurs with exercise or emotional stress and is relieved by rest or nitroglycerin.

2. **Unstable angina**; occurs with exercise or emotional stress, but it increases in occurrence, severity, and duration over time.
3. **Variant angina** ; is due to a coronary artery spasm, often occurring during periods of rest.

Signs and Symptoms

1. Pain may radiate to other parts of the body such as the jaw, back, or arms.
2. Difficulty breathing, shortness of breath (dyspnea).
3. Sweating.
4. Tachycardia.
5. A feeling of weakness or numbness in the arms, wrists, and hands.

Treatment

The goal of treatment is to deliver sufficient oxygen to the heart muscle to meet its need. When suspecting chest pain, always give oxygen as the first line of defense, Nitroglycerin—sublingual tablets, Aspirin, Analgesic.

Myocardial Infarction (MI)

Blood supply to the myocardium is interrupted for a prolonged time due to the blockage of coronary arteries. This results in insufficient oxygen reaching cardiac muscle, causing cardiac muscles to die (necrosis). MI is commonly known as a heart attack.

Signs and Symptoms

1. Chest pain that is unrelieved by rest or nitroglycerin, unlike angina.
2. Pain that radiates to arms, jaw, back and/or neck.
3. Shortness of breath.
4. Nausea or vomiting possible.
5. Heart rate >100 (tachycardia), Variable blood pressure.
6. Restlessness.
7. Pale, sweating.
8. Sudden death due to arrhythmia usually occurs within first hour.
9. Maybe asymptomatic, known as a **Silent MI**, which is more common in diabetic patients.

Medical Management

The goals of medical management are to minimize myocardial damage, preserve
myocardial function, and prevent complications such as lethal dysrhythmias and
cardiogenic shock.

Nursing Care

1. Monitor vital signs every 15 min until stable, then every hour, respiration, pulse, BP, ECG.
2. Administer oxygen
3. Vasodilators (Nitroglycerin)
4. Analgesics (Morphine)
5. Antidysrhythmic and Antihypertensive (Lopressor)
6. Thrombolytic agents (Streptokinase)
7. Antiplatelet agents (Aspirin)
8. Anticoagulants (Heparin)
9. Teach patient about, Smoking cessation, Limit activities, Stress reduction, Diet changes.

Intensive Care Unit (ICU)

Is a special department of a hospital or health care facility that provides intensive treatment medicine, also known as (intensive therapy unit or intensive treatment unit or critical care unit.

Intensive Care Unit staffed by highly trained doctors and nurses who specialize in caring for critically ill patients, also have advanced medical equipment.

Types of ICU

1. Neonatal Intensive Care Unit (NICU)
2. Pediatric Intensive Care Unit (PICU)
3. Coronary Care Unit (CCU), also Known Cardiac Intensive Care Unit (CICU) or Cardiovascular Intensive Care Unit (CVICU).

Equipment and System

1. Mechanical Ventilator
2. Cardiac Monitors with Defibrillators (DC Shock)
3. Dialysis Equipment
4. Feeding Tubes, Endotracheal Tubes, Nasogastric Tubes,
5. Different Drugs, Intravenous Lines and syringes.

Respiratory failure

The lungs are unable to adequately exchange oxygen and carbon dioxide because of insufficient ventilation.

Causes

1. CNS depression - head trauma or injudicious use of sedatives, narcotics.
2. Cardiovascular disorders - MI, heart failure.
3. Airway irritants - smoke or fumes.
4. Endocrine and metabolic disorders.
5. Thoracic abnormalities - chest trauma.

Signs and Symptoms

1. Difficulty breathing, coughing
2. Fatigue, sweating
3. Respiration greater than 20 breaths per minute
4. Cyanosis
5. Anxiety due to air hunger and lack of oxygenation

Nursing Care

1. Observe the patient closely for respiratory arrest.
2. In an intubated patient, suction the airways as required
3. Maintain a patent airway.
4. Closely monitor airway patency and oxygen supply.
5. Administer oxygen at appropriate concentrations.

Acute Bronchitis

Its caused by infection and airborne irritants that block the airway, blockage of the airways is reversible, generally self-limited and with

eventual complete healing and return of function,. most prevalent in winter, is generally part of an acute URI.

Signs and Symptoms

1. Malaise
2. Chilliness
3. Slight Fever
4. Back and Muscle Pain
5. Sore Throat
6. Dry Non-productive Cough

Treatment

1. The patient should rest until fever subsides.
2. Oral fluids
3. An antipyretic analgesic
4. Antibiotics
5. Oxygen and Nebulizer using

Chronic Bronchitis

The presence of cough and sputum production for at least 3 months in each of two consecutive years lead to block the airway, where blockage is not reversible.

Signs and Symptoms

1. Cough
2. Shortness of breath
3. Fever
4. Productive
5. Weight gain due to edema
6. Wheezing

Medical Management

1. Smoking cessation.
2. Bronchodilators
3. Corticosteroids
4. Antibiotic

5. Mucolytic, Antitussive Agents
6. Oxygen Therapy

Nursing care

1. Monitor respirations looking at rate, skin color; listen to breath sounds.
2. Weigh the patient daily.
3. assessing the dyspnea and making sure that it has lessened.
4. Encourage patient to eliminate or reduce all pulmonary irritants, particularly cigarette smoking.
5. Instruct patient to avoid extremes of heat and cold and air pollutants
Assess patient for complications

Asthma

Asthma is a chronic inflammatory disease of the airways characterized by secretions production, bronchospasm.

Signs and Symptoms

1. Wheezing
2. Difficulty breathing (dyspnea)
3. Respiration greater than 20 breaths per minute (tachypnea)
4. Tightness in the chest
5. Cough
6. Tachycardia

Treatment

1. Oxygen
2. Bronchodilator with nebulizer
3. Steroids to decrease inflammation (Hydrocortisone)
4. Aminophylline
5. Antibiotics

Nursing Care

1. Monitor respiration: rate, skin color, breath sounds.
2. Place patient in high Fowler's position (90°) to ease respirations.
3. Monitor vital signs, look for changes in BP, tachycardia, tachypnea.
4. Explain to the patient:

a) How to use the inhaler
b) Avoid exposure to allergen.
c) How to recognize the early signs of asthma.

Pneumonia
is an acute infection of the lung parenchyma that commonly impairs gas exchange, could occur due to bacteria, viruses, parasites, or irritating agents.

Signs and Symptoms
1. Coughing
2. Sputum Production
3. Pleuritic Chest Pain
4. Shaking Chills
5. Fever(38.5° - 40.5°)
6. Rhonchi

Lab. Tests and Diagnosis
1. Sputum culture
2. Elevated WBC count
3. Chest x-ray

Treatment
1. Supplemental Oxygen
2. Antibiotics (Penicillin's, Cephalosporin's)
3. Antipyretics
4. Antitussive, Antihistamines
5. Bed Rest

Nursing Care
1. Improving Airway Patency
2. Promoting Rest and Conserving Energy
3. Promoting Fluid Intake and Maintaining Nutrition
4. Promoting Patients' Knowledge
5. Monitoring and Preventing Potential Complications
6. Teaching Patients Self-Care