OBJECTIVES

Upon completion of this unit, the student will be able to:

1. List the major components of the respiratory system.
2. Define respiration and differentiate between the two types.
3. Name the two phases of respiration and state the functions of each.
4. State how respirations are controlled.
5. Define the various abnormalities of respirations.
6. Identify the relationship between the respiratory system and circulatory system.
7. Describe age-related changes in the respiratory system.

PLAN OF LESSON

I. Respiratory System
   A. Nostril
   B. Pharynx
   C. Larynx
   D. Trachea/Windpipe
   E. Bronchi
      1. Alveoli
      2. Cilia
   F. Lungs
   G. Bronchioles
   H. Bronchial/Subdivisions
I. Thoracic Cavity
   1. Diaphragm
   2. Pleura
   3. Mediastinum

II. Respiration
   A. Internal Respiration
   B. External respiration

III. Physiology of Respiration
   A. Inhalation
   B. Exhalation

IV. The Control of Breathing
V. Abnormal Respirations

VI. Relationship
   A. Respiration
   B. Circulation

VII. Age-Related Changes
OBJECTIVES

Upon completion of this unit, the student will be able to:

1. Identify the significant subjective and objective assessment data that should be obtained from a patient.
2. Describe the techniques used in a physical assessment of the respiratory system.
3. Identify adventitious lung sounds and possible causes of each.
4. Differentiate normal from common abnormal findings of a physical assessment of the respiratory system.
5. State the purpose and function of the chest X-ray, CAT scan, lung scan, and fluoroscopy.
6. Identify purpose and general procedure for pulmonary function tests.
7. State the purpose and procedure of blood gas analysis.
8. Identify the purpose of obtaining a sputum specimen and indicate the best time to obtain it.
9. Identify the procedure for obtaining a sputum specimen and state information that should be charted after specimen is obtained.
10. State the purpose of bronchoscopy.
11. Identify nursing care of the patient both before and after a bronchoscopy.
12. List complications that can occur from a bronchoscopy.
13. Define bronchography and identify the procedure.
14. Identify the use of thoracentesis as a diagnostic procedure and its nursing care.
15. Describe the purpose, nursing responsibilities, and significant results related to diagnostic studies.

PLAN OF LESSON

I. Assessment
II. Techniques of Physical Assessment
   A. Significant Findings
III. X-rays
   A. Fluoroscopy
IV. Pulmonary Function Tests
   A. Mechanical Function (Spirometry)
   B. Blood Gas Analysis
V. Sputum Specimens
   A. Purpose
   B. Procedure
   C. Charting
VI. Bronchography
VII. Bronchoscopy
   A. Purpose
   B. Nursing Care
   C. Complications
VIII. Thoracentesis
IX. Diagnostic Test Results
   A. Nurse’s Responsibility
OBJECTIVES

Upon completion of this unit, the student will be able to:

1. Identify general methods of preventing respiratory diseases and persons at high risk for these diseases.
2. Define the two main categories of cough.
3. List nursing observations of a patient with a cough.
4. Identify nursing care for the patient with a cough.
5. Identify clinical signs of respiratory distress and methods to relieve these.
6. Identify the cause of fatigue in respiratory disorders and methods to relieve this.
7. Define hypocapnia and indicate its results on the body.
8. List symptoms of respiratory acidosis.
9. Define hypoxemia and its results on the body.
10. List conditions associated with hypoxemia.
11. Identify nursing responsibilities associated with caring for the patient with abnormal breathing patterns.

PLAN OF LESSON

I. Prevention of Respiratory Disease

II. General Nursing Care of Patient with Respiratory Disorder
   A. Cough
     1. Categories
     2. Nursing Observations
     3. Nursing Care

III. Respiratory Distress

IV. Fatigue

V. Abnormal Breathing Patterns
   A. Hypercapnia
   B. Hypocapnia
OBJECTIVES
Upon completion of this unit, the student will be able to:

1. List reasons for loss of appetite in the respiratory patient and nursing measures to encourage nutrition.
2. Identify reasons for forcing fluids in the respiratory patient.
3. Define humidification and aerosol and identify the four general purposes of these therapies.
4. Define nebulizers and humidifiers and indicate their uses.
5. Identify aims of pulmonary hygiene and methods by which they’re achieved.
6. Identify the procedure for postural drainage and percussion stating precautions which should be taken during the procedure.
7. Identify the purpose of breathing exercises and describe the common ones used.
8. Identify when the different concentrations of oxygen are used.
9. Identify indications for oxygen therapy.
10. List signs and symptoms of inadequate oxygen supply.
11. Indicate how oxygen can be a respiratory depressant.
12. Identify the effects of oxygen toxicity.
13. Identify different methods of oxygen administration, reasons for their use and special consideration of each.
14. Identify safety precautions to be observed when patients are receiving oxygen therapy.
15. Identify two types of respirators and their purposes.
16. Identify basic nursing care of the patient on a respirator.

Implementation: Linton Ch. 30, 31 & 32; Lecture/Class Discussion; Handouts; Guest Speaker – Respiratory Therapist
Evaluation: Class Participation, Quizzing, Written Test, Application in Patient Care
Integrated: Nutrition 1 Hour and Fundamentals 0.75 Hour

PLAN OF LESSON

I. Nutrition
   A. Nursing Management
      1. Six Meals
      2. Snacks

II. Hydration

III. Humidification
   A. Definition
   B. Purposes
   C. Methods

IV. Pulmonary Hygiene
   A. Aims
   B. Postural Drainage
      1. Procedure
      2. Precaution
   C. Breathing Exercises

V. Oxygen Therapy
   A. Oxygen Concentration
   B. Indications for Oxygen Therapy
   C. Assessment of Signs and Symptoms of Inadequate Oxygen Supply
   D. Oxygen Toxicity
   E. Modes of Administration of O2
   F. Safety Precautions

VI. Mechanical Ventilation
   A. Types
   B. Purposes
   C. Nursing Care
OBJECTIVES

Upon completion of this unit, the student will be able to:

1. List the four main methods of which drugs used in treatment of respiratory diseases may be administered.
2. State the purpose of giving drugs in inhalation therapy and list three methods by which it may be carried out.
3. Explain the purpose of antipyretic drugs and give two examples.
4. List the two types of cough medications and explain their actions and give examples of each.
5. State the purpose of antihistamines and decongestants and give examples of each.
6. Explain the action of bronchodilators and give examples of most common ones used.
7. Indicate action of antispasmodics and bronchodilators.
8. List side effects of antispasmodics and bronchodilators
9. List common antibiotics used in treating respiratory diseases.
10. State the action of adrenocorticosteroids and give examples of common ones used in treating respiratory disease.
11. Identify side effects of the patient on adrenocorticosteroids.

PLAN OF LESSON

I. Methods of Administrations
   A. Oral
   B. IV
   C. IM
   D. Subcutaneous
   E. Inhalation Therapy

II. Drugs Acting on Respiratory System
   A. Antipyretics
      1. Purpose
      2. Examples
   B. Cough Medications
      1. Expectorant
         a. Action
         b. Examples
      2. Suppressant (Sedative)
         a. Action
         b. Examples
   C. Mucolytic
      1. Action
      2. Examples
   D. Antihistamines
   E. Decongestants
   F. Bronchodilators
      1. Action
      2. Examples
   G. Antispasmodics and Bronchodilators
      1. Action
      2. Examples
   H. Antibiotics

III. Adrenocorticosteroids
   1. Action
   2. Examples
   3. Side effects
OBJECTIVES

Upon completion of this unit, the student will be able to:

1. Identify data to be collected in the nursing assessment of the patient with a respiratory disorder.
2. Identify the nursing implications of age-related changes in the respiratory system.
3. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for acute viral rhinitis.
4. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for acute bronchitis.
5. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for influenza.
6. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for pneumonia.
7. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for pleurisy.
8. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for pneumothorax, hemothorax, and rib fractures.
9. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for pulmonary embolus.
10. Assist in developing a nursing care plan for the patient who has an acute respiratory disorder.
11. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for acute respiratory distress syndrome (ARDS).

PLAN OF LESSON

I. Nursing Assessment of Respiratory System & Age-Related Changes in System

II. Acute Viral Rhinitis
   A. Pathophysiology/ S & S
   B. Complications
   C. Diagnostic Measures
   D. Medical Treatment
   E. Nursing Management

III. Acute Bronchitis
   A. Pathophysiology/ S & S
   B. Complications
   C. Diagnostic Measures
   D. Medical Treatment
   E. Nursing Management

IV. Influenza
   A. Pathophysiology/ S & S
   B. Complications
   C. Diagnostic Measures
   D. Medical Treatment
   E. Nursing Management

V. Pneumonia
   A. Pathophysiology/ S & S
   B. Complications
   C. Diagnostic Measures
   D. Medical Treatment
   E. Nursing Management

VI. Pleurisy
   A. Pathophysiology/ S & S
   B. Complications
   C. Diagnostic Measures
   D. Medical Treatment
   E. Nursing Management

VII. Pneumothorax
   A. Pathophysiology/ S & S
   B. Complications
   C. Diagnostic Measures
   D. Medical Treatment
   E. Nursing Management

VIII. Hemothorax and Fractured Ribs
   A. Pathophysiology/ S & S
   B. Complications
   C. Diagnostic Measures
   D. Medical Treatment
   E. Nursing Management

IX. Pulmonary Embolus
   A. Pathophysiology/ S & S
   B. Complications
   C. Diagnostic Measures
   D. Medical Treatment
   E. Nursing Management

XI. Acute Respiratory Distress Syndrome
   A. Pathophysiology/ S & S
   B. Complications
   C. Diagnostic Measures
   D. Medical Treatment
   E. Nursing Management

Written: 01/03
Reviewed: 01/11; 01/15
Revised: 07/04; 01/05; 01/07; 01/09; 01/13; 10/15; 1/16
Unit: Medical Surgical Nursing
Disorders of the Respiratory System

Lesson: 7
Title: Chronic Respiratory Disorders
Time: Theory 2 Hours

Implementation: Linton Ch. 30, 31 & 32; Study Guide Unit 7; Clayton & Stock Ch. 31; Lecture/Class Discussion; Transparencies; Quizzing; Video: TB or Not TB. (1998). American Journal of Nursing. Run time 30 min

Evaluation: Class Participation, Quizzing, Written Test, Application in Patient Care

Reviewed: 09/93; 07/99; 01/05; 01/11; 01/15
Revised: 07/95; 07/97; 01/01; 01/03; 07/04; 01/07; 01/09; 01/13; 10/15; 01/16

Written: 09/00

OBJECTIVES

Upon completion of this unit, the student will be able to:

1. Identify examples of chronic inflammatory, obstructive, and restrictive pulmonary diseases.
2. Explain the relationship between cigarette smoking and chronic respiratory disorders.
3. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for asthma.
4. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for chronic bronchitis.
5. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for emphysema.
6. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for bronchiectasis.
7. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for tuberculosis.
8. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for interstitial lung disease.
9. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for occupational lung disease.
10. Describe the pathophysiology, signs and symptoms, complications, diagnostic measures, and medical treatment for lung cancer.

PLAN OF LESSON

I. COPD Types

II. Relationship of Cigarette Smoking to Disease

III. Asthma
   A. Pathophysiology
   B. Signs & Symptoms
   C. Complications
   D. Diagnostic Measures
   E. Medical Treatment
   F. Nursing Management

IV. Chronic Bronchitis
   A. Pathophysiology
   B. Signs & Symptom
   C. Complications
   D. Diagnostic Measures
   E. Medical Treatment
   F. Nursing Management

V. Emphysema
   A. Pathophysiology
   B. Signs & Symptoms
   C. Complications
   D. Diagnostic Measures
   E. Medical Treatment
   F. Nursing Management

VI. Bronchiectasis
   A. Pathophysiology
   B. Signs & Symptoms
   C. Complications
   D. Diagnostic Measures

VII. Tuberculosis
   A. Pathophysiology
   B. Signs & Symptoms
   C. Complications
   D. Diagnostic Measures
   E. Medical Treatment
   F. Nursing Management

VIII. Interstitial Lung Disease
   A. Pathophysiology
   B. Signs & Symptoms
   C. Complications
   D. Diagnostic Measures
   E. Medical Treatment
   F. Nursing Management

IX. Occupational Lung Disease
   A. Pathophysiology
   B. Signs & Symptoms
   C. Complications
   D. Diagnostic Measures
   E. Medical Treatment
   F. Nursing Management

X. Lung Cancer
   A. Pathophysiology
   B. Signs & Symptoms
   C. Complications
   D. Diagnostic Measures
   E. Medical Treatment
   F. Nursing Management
OBJECTIVES

Upon completion of this unit, the student will be able to:

1. Identify pre-operative care for the patient having chest surgery.
2. Identify post-operative care for the patient who has had chest surgery.
3. State symptoms which could indicate post-operative complications.
4. Identify types of closed drainage and its purpose.
5. Identify special aspects of caring for a closed drainage system.
6. Identify special aspects of caring for a patient with a closed drainage system and signs of respiratory distress.

PLAN OF LESSON

I. Pre-Operative Care for Intrathoracic Surgery
II. Post-Operative Care for Intrathoracic Surgery
III. Care of the Patient with Chest Tubes and Closed chest Drainage
   A. Types and Purposes
   B. Special Aspects of Caring for a Closed Drainage System
   C. Caring for a Patient with Closed Chest Drainage