OBJECTIVES

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

1. List the location of hormone producing glands in the body.
2. Describe the mechanisms that control hormone synthesis and release from the endocrine glands.
3. Define, describe in detail and give the functions of each hormone secreted by the various endocrine glands.
4. Compare the biological effects of deficit and excess of each major hormone.
5. Describe the normal age-related changes in the endocrine system.
6. Describe data essential to the assessment of patients with actual or potential health problems of the endocrine system.
7. Discuss the common diagnostic tests used to identify endocrine dysfunction and explain the meaning of the results.

PLAN OF LESSON

I. Introduction

II. General Endocrine Processes
   A. Functions of Hormones
   B. Mechanisms of Hormone Action
      1. Hormone Release
      2. Hormone Transport
      3. Hormone Action

III. Endocrine Structures and Hormonal Functions
   A. Pituitary
      1. Anterior Lobe Hormone
      2. Posterior Lobe Hormone
   B. Thyroid
   C. Parathyroid
   D. Thymus
   E. Adrenals
      1. Cortex
      2. Medulla
   F. Pancreas
   G. Gonads

IV. Normal Age-Related Changes
   A. Parathyroid Gland Activity
   B. Thyroid Gland Activity

V. Patient Assessment
   A. Health History
      1. Intake
      2. Elimination
      3. Energy Level
      4. Perceptions of Body Characteristics
   B. Physical Examination
      1. Observations of Adult Gerontologic Assessment

VI. Diagnostic Tests & Interpretation
   A. Principles of Lab Evaluation
   B. Dynamic Testing
   C. Urine Assessment of Hormonal Status
   D. Imaging Studies
   E. Assessing Functions of Individual Endocrine Glands
OBJECTIVES

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

1. Differentiate between the pathophysiology of hypersecretion and hyposecretions of the anterior lobe of the pituitary gland.
2. Differentiate between the pathophysiology of hypersecretion and hyposecretions of the posterior lobe of the pituitary gland.
3. Explain in detail the etiology, symptoms, treatment and nursing management of the patient with hyperthyroidism.
4. List the types of goiters and their etiology, symptoms, treatment and nursing management.
5. Describe thyroid cancer and discuss symptoms, incidence, treatment and prognosis.
6. Formulate a nursing plan of care for a patient after a thyroidectomy.
7. Define hypothyroidism and explain the etiology, symptoms, diagnosis, treatment and nursing management.
8. Explain hypo- and hyperparathyroidism and discuss their symptoms, diagnosis and treatment.
9. Explain and discuss the adrenal disorders with regards to symptoms, treatment and nursing management.
10. Describe the self-care skills needed by a patient receiving long-term hormonal replacement therapy for pituitary, thyroid, parathyroid, or adrenocortical insufficiency.

PLAN OF LESSON

I. Pituitary Disorders
   A. Anterior Lobe
   B. Posterior Lobe
II. Thyroid Disorders
   A. Hyperthyroidism
      1. Etiology
      2. Symptoms
      3. Diagnostic Tests
      4. Treatment and Nursing Management
   B. Goiters
      1. Types
      2. Etiology
      3. Symptoms
      4. Treatment
   C. Cancer
      1. Radiation
      2. Surgery
      a. Post-Op Plan of Care
   D. Hypothyroidism
      1. Etiology
      2. Symptoms
      3. Diagnosis
      4. Treatment and Nursing Management

III. Parathyroid Disorders
    A. Hyperparathyroidism
       1. Symptoms
       2. Diagnostic Tests
       3. Treatment and Nursing Management

IV. Adrenal Disorders
    A. Addison’s Disease
    B. Cushing’s Disease
    C. Pheochromocytoma

V. Hormonal Replacement Therapy
    1. Self-care Skills
OBJECTIVES

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

1. Define diabetes mellitus.
2. Identify the incidence and statistics related to diabetes.
3. Differentiate the two types of diabetes.
4. Briefly summarize the etiology, epidemiology, and pathophysiology of diabetes.
5. Describe in detail the physical changes taking place in the diabetic patient.
7. Identify the diagnostic test for diabetes.
8. Discuss the guidelines of treatment for the diabetic treatment.

PLAN OF LESSON

I. General Information
   A. Definition
   B. Incidences
   C. Types
   D. Etiology
   E. Epidemiology
   F. Pathophysiology
   G. Symptoms
   H. Diagnostic Tests
   I. Treatment
      1. Medical
      2. Surgical
Unit: Medical Surgical Nursing
The Endocrine Systems
Lesson: 4
Title: Diabetes: Complications (Acute and Chronic)
Time: Theory 3.25 Hours

OBJECTIVES

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

1. Define and list the symptoms of diabetic shock and diabetic coma.
2. Discuss the treatment and nursing management of the patient in diabetic shock and diabetic coma.
3. List and discuss the symptoms and treatment of retinopathy and nephropathy.
4. Define and discuss the risk factors of atherosclerosis.
5. Discuss the symptoms and prevention of large and small vessel disease of the legs and feet.
6. Describe the neuropathic changes taking place in the peripheral and autonomic systems.

Implementation: Linton Ch. 48; Lecture/Class Discussion; Handouts; Quizzing; Case Studies
Evaluation: Application in Patient Care, Written Test, Class Participation
Integrated: Pharmacology 0.25 Hours

PLAN OF LESSON

I. Acute complications
   A. Hyperglycemia
      1. Diabetic Ketoacidosis
      2. Hyperglycemic Hyperosmolar Nonketotic Coma
   B. Hypoglycemia
      1. Diabetic Shock

II. Chronic Complications
   A. Small Vessel Disease
      1. Retinopathy
      2. Nephropathy
   B. Large Vessel Disease
      1. Atherosclerosis
   C. Large and Small Vessel Disease of Legs and Feet
      1. Foot Care
   D. Nervous System Complications
      1. Neuropathy
         a. Peripheral
         b. Autonomic

III. Miscellaneous Information
   A. Social Considerations

Written: 09/90
Reviewed: 09/93, 07/99, 07/03; 05/06; 05/09; 05/13
Revised: 07/95, 07/97, 05/01; 09/05; 05/07/05/11; 1/16
OBJECTIVES

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

1. List and discuss the major concepts in diabetic education.
2. Discuss ways of teaching the diabetic how to maintain optimum health.
3. Describe the steps involved in educating the diabetic patient regarding blood and urine testing.
4. Identify and discuss the food exchange list in education of the diabetic patient.
5. Discuss the need and identify ways of educating the diabetic about insulin use and administration and oral hypoglycemic.

PLAN OF LESSON

I. Understanding the Disease Process
II. Maintaining Health at Optimum Level
III. Blood/Urine
IV. Dietary Consideration
V. Exercise
VI. Insulin/Oral Hypoglycemic
VII. Prevention of Complications
VIII. Students Develop a Teaching Booklet