OBJECTIVES

Upon completion of this unit the student will:

1. Describe structural units and functions of CNS and PNS.
2. Describe structural units and function of autonomic nervous system.
3. Describe passage of impulses through neurons and neural pathways.
4. Identify different levels of consciousness.
5. Describe the normal age-related changes in the neurological system and differences in assessment findings.
6. Discuss and list reasons for neurological examination by MD.
7. Describe and discuss the significance of a neurological checks/assessment.
8. List signs and symptoms of increased intracranial pressure.

PLAN OF LESSON

I. Central Nervous System
   A. Location
   B. Functions
   C. Parts

II. Peripheral Nervous System
   A. Location
   B. Functions
   C. Parts

III. Autonomic Nervous System
   A. Location
   B. Functions
   C. Parts

IV. Physiology of Nervous System
   A. Neural Conduction
   B. Excitability and Conductivity
   C. Oxygen Requirements

V. Assessment of Levels of Consciousness

VI. Normal Age-Related Changes
   A. Memory
   B. Vision
   C. Hearing
   D. Taste
   E. Smell
   F. Position Sense
   G. Muscle Strength
   H. Reaction Time

VII. Neurological Exam
   A. Physical Preparation
   B. Nurse’s Role
   C. Glasgow Coma Scale
OBJECTIVES

Upon completion of this unit the student will:

1. Discuss and list six purposes of lumbar puncture.
2. Discuss sequelae and nursing care of patient undergoing lumbar puncture.
3. Discuss the preparation for contrast studies.
4. Discuss management of patient after contrast studies.
5. Describe, discuss, and list the purposes of E.E.G.
6. Describe, discuss, and list the purposes of brain scan.

PLAN OF LESSON

I. Diagnostic Evaluation
   A. Lumbar Puncture
      1. Six Purposes
      2. Management
   B. Contrast Studies; Preparation and Management After
      1. Cerebral Angiography
      2. Ventriculography
      3. Pneumoencephalography
      4. Myelography
   C. Other Diagnostic Studies
      1. E.E.G
      2. Brain Scan
      3. C.T. Scan
      4. MRI
      5. Electromyography
OBJECTIVES

Upon completion of this unit the student will:

1. Define and list causes, medical treatment of Alzheimer’s Disease and the nursing care required by a patient with Alzheimer’s Disease.
2. List the signs and symptoms and medical treatment for IICP.
3. Define and list causes and types, medical treatment of seizures and the nursing care required by a patient with seizures.
4. Describe management of a patient during and after a grand mal seizure.
5. Define and list causes, medical treatment of headaches and migraine headaches and the nursing care required by a patient with headaches and migraine headaches.
6. Define and list causes, medical treatment of meningitis and the nursing care required by a patient with meningitis.
7. Define and list causes, medical treatment of encephalitis and the nursing care required by a patient with encephalitis.

PLAN OF LESSON

I. Alzheimer’s
   A. Cause
   B. Treatment
   C. Nursing Care
   D. Common Medications

II. IICP
   A. Signs and symptoms
   B. Management

III. Epilepsy
   A. Cause
   B. Treatment
   C. Nursing Care
   D. Common Medications

IV. Headaches
   A. Cause
   B. Treatment
   C. Nursing Care

V. Meningitis
   A. Cause
   B. Treatment
   C. Nursing Care

VI. Encephalitis
   A. Cause
   B. Treatment
   C. Nursing Care

VII. Guillain-Barre Syndrome
   A. Cause
   B. Treatment
   C. Nursing Care

VIII. Parkinson’s Disease
   A. Cause
   B. Treatment
   C. Nursing Care

IX. Multiple Sclerosis
   A. Incidence
   B. Cause
   C. Symptoms
   D. Treatment
   E. Prognosis
   F. Emotional Response
   G. Complications

X. Amyotrophic Lateral Sclerosis (ALS)
   A. Cause
   B. Treatment
   C. Nursing Care

XI. Huntington’s Disease
   A. Cause

XII. Myasthenia Gravis
   A. Cause
   B. Treatment
   C. Nursing Care

XIII. Trigeminal Neuralgia
   A. Cause
   B. Treatment
   C. Nursing Care

XIV. Bell’s Palsy
   A. Cause

XV. Herpes Zoster/Shingles
   A. Cause
   B. Treatment
   C. Nursing Care
OBJECTIVES

Upon completion of this unit the student will:

11. Define and list causes, medical treatment of ALS and the nursing care required by a patient with Amyotrophic Lateral Sclerosis.
12. Define and list causes, medical treatment of Huntington’s Disease and the nursing care required by a patient with Huntington’s.
13. Define and list causes, medical treatment of myasthenia gravis and the nursing care required by a patient with myasthenia gravis.
14. Define and list causes, medical treatment of trigeminal neuralgia and the nursing care required by a patient with trigeminal neuralgia (tic douloureux).
15. List the signs and symptoms and medical treatment of Bell’s Palsy.
17. Define and list causes, medical treatment of poliomyelitis and the nursing care required by a patient with poliomyelitis.
18. Define and list causes, medical treatment of brain tumors and the nursing care required by a patient with brain tumors.
19. List the signs and symptoms of brain injury.
20. Define the different types of injuries to the brain.
OBJECTIVES

Upon completion of this unit the student will:

1. Define cerebrovascular disease.
2. Define atherosclerosis and arteriosclerosis.
3. Understand special problems with cerebrovascular disease.
4. Define CVA/stroke.
5. Define cerebral insufficiency.
7. List nursing management of a CVA patient in the acute phase.
8. Discuss nutritional considerations of CVA patients.
9. Discuss drug therapy in a patient with CVA.
10. Discuss phases of rehabilitation of the CVA patient.

PLAN OF LESSON

I. Cerebrovascular Disease
   A. Pathophysiology
   B. Symptoms
   C. Treatment

II. Atherosclerosis/Arteriosclerosis
   A. Differences
   B. Symptoms

III. Problems of Cerebrovascular Disease
   A. Behavior
   B. Changes and Orientation
   C. Dependence
   D. Independence
   E. Families

IV. Cerebral Insufficiency
   A. Treatment
   B. Nursing Management

V. Aneurysms
   A. Medical Treatment
   B. Surgical Treatment
   C. Nursing Management of Each

VI. CVA’s
   A. Signs and Symptoms
   B. Diagnosis
   C. Treatment
   D. Nursing Management
   E. Nutritional Considerations
      1. Thick It
      2. Role of Speech Therapist
   F. Drug Therapy
      1. Anticoagulants
      2. Stoll Softeners
      3. Sedatives of Tranquilizers

VII. Rehabilitation
   A. ADL
OBJECTIVES

Upon completion of this unit the student will:

1. Know the areas of functions of the spinal cord.
2. List causes and treatments of cord and spinal nerve root compression.
3. List pre- and post-operative management of a patient with a laminectomy.

PLAN OF LESSON

I. Functions of Spinal Cord
II. Causes of Spinal Nerve Root Compression
   A. Trauma
   B. Herniated Intervertebral Disc
   C. Cervical Spondylosis
   D. Tumor Management
III. Treatment and Management
   A. Conservative Therapy
   B. Nursing Management
   C. Surgery
      1. Pre-op Care
      2. Post-op Care
IV. Paraplegia
   A. Early Treatment
   B. Assessment and Management
      1. Complications
      2. Nutrition
      3. Elimination
      4. Psychological Problems
      5. Rehabilitation
V. Tumors of Spinal Cord
   A. Cause
   B. Signs & Symptoms
   C. Treatment