**Description:**
After appropriate study and practice, the nursing student will be able to plan and give care to adult patients in an acute hospital setting to meet identified needs; with special emphasis on sensory and regulatory needs due acute intracranial problems, stroke, chronic neurologic problems, dementia & delirium, and spinal cord and peripheral nerve problems. The Roy Adaptation Model and the Nursing Process will be integrated to provide a nursing framework for providing nursing care to patients with adaptation problems relating to sensory and regulatory needs.

**Estimated time of achievement:** Two weeks

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| 1. Obtain significant subjective and objective data related to the nervous system. | Section 11: Problems Related to Movement and Coordination (Chapters 55-60) | Chapter 55: Assessment of Nervous System, pages 1294-1313 | Patient-Centered Care  
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Genetic Risk Alert, p. 1303  
Table 55-2: Gerontologic Assessment Differences: Nervous System, p. 1302  
Table 55-3: Health History: Nervous System, p. 1302 | |
| 2. Perform a physical assessment of the nervous system using the appropriate techniques. | Table 55-4: Cranial Nerves: Function and Assessment, p. 1305 | | |
| 3. Determine abnormal findings of a physical assessment of the nervous system. | Table 55-3: Health History –Nervous System, p. 1303 | | |
| 4. Describe the purpose, significance of results, and nursing responsibilities related to diagnostic studies of the nervous system. | Table 55-2: Gerontologic Assessment Differences –Nervous System, p. 1302 | | |
| | Table 55-5 Normal Physical Assessment of Nervous System, p. 1308 | | |
| | Table 55-6: Assessment Abnormalities –Nervous System, p. 1308-1309 | | |
| | Table 55-7 Diagnostic Studies –Nervous System, | | |

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**Quality Improvement**
Focused Assessment: Nervous System, p. 1308
5. Explain the physiologic mechanisms that maintain normal intracranial pressure.

6. Describe the common etiologies, clinical manifestations, nursing management and interprofessional care, including surgical therapy of increased intracranial pressure.

7. Differentiate types of head injury by mechanism of injury and clinical manifestations.

8. Describe the interprofessional care and nursing management of brain injury.

9. Describe the nursing management of the patient undergoing cranial surgery.

10. Differentiate among the primary causes, interprofessional care, and nursing management of brain abscess, meningitis, and encephalitis.

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- Intracranial Pressure (ICP)
- Head Injury
- Bacterial Meningitis
- Viral Meningitis
- Encephalitis

### Table 56-7: Manifestations of Skull Fractures, p. 1327

### Table 56-8: Types of Subdural Hematomas, p.1329

### Table 56-14: Indications for Cranial Surgery, p. 1336

### Table 56-16: Comparison of Cerebral Inflammatory Conditions, p. 1339

### Chapter 56: Acute Intracranial Problems, pages 1314-1344

- Intracranial Pressure, Head Injuries, Bacterial vs Viral Meningitis, Encephalitis

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Traumatic Brain Injury, p. 1342

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11. Describe the common etiologies, clinical manifestations, nursing management and interprofessional care, including surgical therapy of ischemic and hemorrhagic strokes.
12. Identify diagnostic studies performed for strokes.
13. Describe the rehabilitative nursing management of a patient with a stroke.

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14. Explain the psychosocial impact of a stroke on the patient, caregiver, and family.

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15. Differentiate the etiology, clinical manifestations, interprofessional care, and nursing management of headaches, multiple sclerosis, Parkinson’s disease, and myasthenia gravis, amyotrophic lateral sclerosis, and Huntington’s disease.

16. Explain the potential impact of chronic neurologic disease on physical and psychologic well-being.

17. Outline the major goals of treatment for the patient with a chronic, progressive neurologic disease.

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18. Describe the etiology, pathophysiology, clinical manifestations, nursing management, and interprofessional care of dementia, Alzheimer’s Disease (AD), and delirium.

- Dementia
- Alzheimer’s Disease (AD)
- Delirium

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20. Describe the nursing management of psychologic problems of the patient with a spinal cord injury and peripheral nerve problems.

- Spinal Cord Injury
- Bell’s Palsy
- Guillain-Barre Syndrome

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| **Histamine (H2)-receptor antagonist** – cimetidine | **Fibrinolytic therapy** – recombinant tissue plasminogen activator (tPA) | **Corticosteroids** – dexamethasone | **Depression:**
| **Proton pump inhibitor** – pantoprazole (Protonix) | **Calcium channel blockers** – nimodipine | **Selective serotonin reuptake inhibitors** – fluoxetine (Prozac), paroxetine (Paxil) | **Selective serotonin reuptake inhibitors (SSRIs)** – sertraline (Zoloft), citalopram (Celexa), fluoxetine (Prozac) |
| **IV antibiotics** – ampicillin, penicillin, cephalosporins - cefotaxime (Clavoral), ceftriaxone (Rocephin) | **Antihypertensive drugs** | **β-adrenergic Blockers** – propranolol (Lopressor) | **Atypical antidepressants** – mirtazapine (Remeron), trazodone |
| **Analgesic** – codeine | **Calcium channel blocker** – nimodipine | **Calcium channel blockers** – nifedipine (Procardia) | **Behavioral Problems:**
| **Antipyretic** – acetaminophen (Tylenol) or aspirin | **Antihypertensive drugs** | **Antiseizure drugs** | **Antipsychotics** – haloperidol (Haldol), risperidone (Risperdal), quetiapine (Seroquel) |
| **Antiviral** – acyclovir (Zovirax) | **Calcium channel blocker** – nimodipine | **Valproic acid** (Depakene), gabapentin (Neurontin), carbamazepine (Tegretol), clonazepam (Klonopin), lacosamide (Vimpat), lamotrigine (Lamictal), levetiracetam (Keppra), lorazepam (Ativan), phenytoin (Dilantin), | **Benzodiazepines** – lorazepam (Ativan), clonazepam (Klonopin) |
| | **Antiseizure drugs** | **Dopaminergics** – levodopa (L-dopa); levodopa/carbidopa (Sinemet) | **Sleep Disturbances: zolpidem (Ambien)** |
| | **Dopamine Precursors** – levodopa (L-dopa); levodopa/carbidopa (Sinemet) | **Dopamine receptor agonists** – ropinirole (Requip) | | **Anticholinergics** – oxybutynin (Ditropan XL) |
| | **Dopaminergics** | | | **Corticosteroids** – dexamethasone, prednisone, methylprednisolone |
| | **Dopamine precursors** | | | |