K: Neurological/Neurosurgical
A Licensed Practical Nurse will:

K-1-1 Demonstrate knowledge and ability to apply critical thinking and critical inquiry throughout the nursing process in neurological nursing.

K-1-2 Demonstrate knowledge and understanding of anatomy, physiology and pathophysiology related to illness/trauma of the neurological system including, but not limited to:

- determinants of normal neurological function
- neurological impairment, shock
- neurological illness, trauma and surgery such as:
  - intracranial hemorrhage
  - increased intracranial pressure
  - meningitis
  - multiple sclerosis
  - neurosurgery
  - Parkinson’s Disease
  - seizures and epilepsy
  - stroke
  - transient ischemic attack
  - traumatic head injury

K-1-3 Demonstrate knowledge and ability to provide health teaching and coaching associated with neurological nursing.

K-1-4 Demonstrate knowledge and ability to communicate and collaborate with inter-professional team.
A Licensed Practical Nurse will:

**K-2-1** Demonstrate knowledge and ability to provide evidence informed, client centered care in relation to neurological nursing:
- ensure and respect client choices in decision making
- assess, monitor and evaluate neurological vital signs:
  - cranial nerve assessment
  - motor assessment
  - sensory assessment
  - reflex assessment
  - Glasgow Coma Scale (GCS)

**K-2-2** Demonstrate knowledge and understanding of indications, contraindications and complications associated with neurological and related diagnostic tests and procedures such as:
- computerized tomography (CT)
- CT Angiogram
- electroencephalography (EEG)
- magnetic resonance imaging (MRI)
- ultrasonogram (carotid Doppler, transcranial Doppler)
- X-ray
- lumbar puncture
- myelography
- electrocardiography (ECG)
- echocardiogram
A Licensed Practical Nurse will:

K-2-3 Demonstrates knowledge and ability to anticipate and recognize actual or potential immediate or urgent neurological crisis including:
- abnormal respirations
- bradycardia
- **cardiac dysrhythmias**
- decreased level of consciousness
- hypertension
- hyperthermia
- hypotension
- hypothermia
- tachycardia
- widening pulse pressure

K-2-4 Demonstrates knowledge and ability to recognize signs and symptoms of a life threatening neurological event and implement interventions according to agency policy.
A Licensed Practical Nurse will:

**K-3-1** Demonstrate knowledge and ability to assess for spinal injury.

**K-3-2** Demonstrate knowledge of best practices in cervical spine management and implementation according to agency policy.

**K-3-3** Demonstrate knowledge of criteria for spinal immobilization and spinal precautions including:
- neck/back pain with or without nerve involvement
  - history of:
    - degenerative bone disease
    - falls
    - head, neck or facial trauma
    - motor vehicle crash
    - trauma with intoxication, altered mental status or unconsciousness

**K-3-4** Demonstrate knowledge and ability to apply and maintain spinal precautions including:
- application, maintenance and removal of cervical collars (soft, rigid)
- assist to stabilize spine with manual and/or mechanical traction
- logrolling
- thoracic- lumbar- sacral orthosis (TLSO), cervical thoracic orthosis (CTO)
- maintain proper spinal/body alignment
- transportation precautions
- use of spine board/slider board

**K-3-5** Demonstrate knowledge and ability to provide nursing care and interventions specific to client with spinal injury including:
- motor power/sensation/neurovascular status
- skin care and institute protective measures
- wounds, drainage tubes
- nutrition/hydration/elimination
- intake and output balance
- casts
- halo traction, jacket and pin site care, thoracolumbosacral orthosis,
- comfort measures and pain management
A Licensed Practical Nurse will:

**K-4-1** Demonstrate knowledge and ability to care for client requiring detailed observation and interventions according to agency policy.

**K-4-2** Demonstrate knowledge and ability to assist with and/or provide advanced neurological assessment, monitoring, care and interventions according to agency policy including:
- 12 and 15 lead ECG application and recognition and reporting
- acid-base balance
- pain management
- swallowing assessment
- arterial blood gas recognition and reporting
- chest assessment and physiotherapy
- cognitive functioning assessment
- cranial nerve assessment
- fluid and electrolyte imbalance monitoring
- lumbar drain monitoring
- pressure monitoring
  - central venous pressure monitoring
- spinal assessment
- ventricular and subdural drain monitoring

**K-4-3** Demonstrate knowledge and ability to communicate, consult and collaborate with inter-professional team.