

I: Neurological

Please note: Competencies within this section of the Profile are to be taken in consideration with competencies outlined throughout this document and are not intended to be standalone.

Important: LPNs are responsible to ensure they have any required education or training and the individual competence prior to performing these competencies.

Major Competency
I: Neurological

Competency
I-1: Neurological Nursing and Interventions

Competency Statement - A Licensed Practical Nurse will:

I-1-1 Demonstrate knowledge of anatomy, physiology, and pathophysiology related to illness, disorders, and trauma of the neurological system:

- determinants of normal function
- impairment, shock
- illness, trauma, and surgery:
 - brain and spinal tumors
 - carotid endarterectomy
 - Guillain-Barre syndrome
 - Intracranial hemorrhage or pressure
 - meningitis
 - seizures and epilepsy
 - brain and spinal cord injury
 - cerebral vascular accident or transient ischemic attack

I-1-2 Demonstrate knowledge and ability to evaluate and monitor neurological vital signs:

- cranial nerve assessment
- motor assessment
- sensory assessment
- reflex assessment

I-1-3 Demonstrate knowledge and ability to apply principles of pharmacokinetics and pharmacodynamics specific to medication management in neurological nursing.

I-1-4 Demonstrate knowledge and understanding of indications, contraindications, and complications associated with neurological diagnostic tests and procedures:

- computer tomography (CT)
- angiography
- electroencephalography (EEG)
- magnetic resonance angiography (MRA)
- magnetic resonance imaging (MRI)
- ultrasonography (carotid Doppler, transcranial Doppler)
- radiography
- electromyography (EMG)
- nerve conduction studies
- lumbar puncture
- myelography
- electrocardiography (ECG)
- echocardiography
- transesophageal echocardiography (TEE)

I-1-5 Demonstrate knowledge and ability to anticipate and recognize actual or potential neurological crisis:

- abnormal respirations
- bradycardia and tachycardia
- decreased level of consciousness
- hypertension and hypotension
- hyperthermia and hypothermia
- widening pulse pressure

I-1-6 Demonstrate knowledge and ability to recognize signs and symptoms and implement interventions during a life-threatening neurological event.

Major Competency
I: Neurological

Competency
I-1: Neurological Nursing and Interventions

A Licensed Practical Nurse will:

I-1-7 Demonstrate knowledge and ability to care for patients requiring advanced observation and interventions according to employer requirements.

I-1-8 Demonstrate knowledge and ability to assist or provide advanced physical assessment, monitoring, care, and interventions according to employer requirements:

- 12 and 15 lead ECG
- acid base balance
- acute pain management
- advanced swallowing assessment
- arterial blood gas analysis
- arterial line monitoring
- cerebral and cognitive function testing
- chest assessment and physiotherapy
- spinal and cranial nerve assessment
- fluid and electrolyte monitoring
- lumbar drain monitoring
- pressure monitoring
 - central venous pressure (CVP)
 - Intra-arterial line (IA)
 - Intra-cranial pressure (ICP)

Major Competency
I: Neurological

Competency
I-2: C-Spine Management

Competency Statement - A Licensed Practical Nurse will:

I-2-1 Demonstrate knowledge and ability to assess for spinal injury.

I-2-2 Demonstrate knowledge of best practices in cervical spine management.

I-2-3 Demonstrate knowledge of criteria for spinal immobilization and spinal precautions:

- neck and back pain with or without nerve involvement
 - degenerative bone disease
 - head and neck trauma
 - altered mental status or unconsciousness

I-2-4 Demonstrate knowledge and ability to apply and maintain spinal precautions:

- application, maintenance, and removal of cervical collars (soft, rigid)
- assist to stabilize spine with manual or mechanical traction
- log rolling
- maintain proper spinal and body alignment
- transportation precautions
- use of spine board or slider board

I-2-5 Demonstrate knowledge and ability to provide nursing care and interventions specific to a patient with a spinal injury:

- neurovascular status, sensation, and strength
- skin care and protective measures
- wounds and drainage
- nutrition, hydration, and elimination
- casts, halo traction, immobilizers
- comfort measures and pain management