V: Infusion Therapy
A Licensed Practical Nurse will:

**V-1-1** Demonstrate knowledge and ability to apply critical thinking and critical inquiry throughout the nursing process related to infusion therapy.

**V-1-2** Demonstrate knowledge of principles of infusion therapy related to:
- circulatory system
  - arterial
  - venous
- blood and blood products
- chemotherapy
- fluid and electrolyte maintenance, restoration and replacement
- infection prevention and control
- medications and nutritional feedings

**V-1-3** Demonstrate knowledge of peripheral lines, central lines, implanted ports, spinals, epidurals and patient controlled analgesia pumps.

**V-1-4** Demonstrate knowledge and ability to provide health teaching and coaching related to infusion therapy.

**V-1-5** Demonstrate knowledge and ability to communicate and collaborate with inter-professional team.
A Licensed Practical Nurse will:

V-2-1 Demonstrate knowledge and ability to manage peripheral infusion therapy:
- initiate, monitor, regulate, lock, discontinue
  - assemble and prime lines
  - calculate infusion rates
  - client safety
  - infusion equipment
  - patient controlled analgesia pumps (PCA pumps)
  - administration of fluids and medications

V-2-2 Demonstrate knowledge and ability to manage complications of peripheral intravenous therapy including:
- abnormal lab values
- air emboli
- allergic reactions
- dehydration/hypervolemia
- equipment/line problems
- fluid/medication error
- infection
- infiltration
- phlebitis/thrombophlebitis
A Licensed Practical Nurse will:

**V-3-1** Demonstrate knowledge and ability to manage hypodermoclysis:
- initiate, monitor, regulate, lock, discontinue
  - assemble and prime lines
  - calculate infusion rates
  - client safety
  - infusion equipment/pumps
  - administration of fluids and medications

**V-3-2** Demonstrate knowledge and ability to manage complications of hypodermoclysis including:
- allergic reactions
- edema
- equipment=line problems
- fluid/medication error
- hypervolemia
- infection
- localized pain
- pooling of fluid at site
A Licensed Practical Nurse will:

V-4-1 **Demonstrate knowledge of central lines and specific application:**
- central venous catheter (CVC):
  - implanted vascular access device (IVAD)
  - non-valved or open ended
  - midline catheter (not a CVC)
  - percutaneous
  - peripherally inserted central catheter (PICC)
  - tunneled
  - valved or closed ended

V-4-2 **Demonstrate knowledge of risks associated with central lines including:**
- abnormal heart rhythm
- blockage
- brachial plexus injury
- embolus or thrombus
- faulty or fractured device
- hemorrhage/hematoma
- incorrect placement
- infection/sepsis

V-4-3 **Demonstrate knowledge and ability to manage risks associated with removal of non-tunneled peripherally inserted central venous catheters (PICC) including:**
- abnormal heart rhythm
- embolus or thrombus
- brachial plexus injury
- faulty or fractured device
- hemorrhage/hematoma
- infection/sepsis
A Licensed Practical Nurse will:

**V-4-4** Demonstrate knowledge and ability to monitor and manage central lines according to agency policy including:
- dressing changes
- cap/tubing change
- flush and lock
- maintain central venous pressure
- administration of fluids
- administration of medications (continuous, intermittent, direct)
- occlusion issues
- patient controlled analgesia pump (PCA pump)
- withdraw blood

**V-4-5** Demonstrate knowledge and ability to remove non-tunneled peripherally inserted central venous catheters (PICC) according to agency policy.
A Licensed Practical Nurse will:

V-5-1 Demonstrate knowledge of circulatory system and components of blood and blood products.

V-5-2 Demonstrate knowledge of normal/abnormal lab values pertaining to blood transfusion.

V-5-3 Demonstrate knowledge of types of transfusions according to composition and indications for use including:
- albumin
- cryoprecipitate
- Factor 8 (anti-hemophilic factor-AHF)
- fresh frozen plasma
- immunoglobulin
- packed red blood cells
- packed white blood cells
- plasma expanders
- platelets
- whole blood

V-5-4 Demonstrate knowledge of blood typing and cross-matching of blood.

V-5-5 Demonstrate knowledge and ability to obtain informed consent understanding and respecting:
- ethical and religious beliefs
- legal right to refuse

V-5-6 Demonstrate knowledge and ability to prepare for blood administration according to agency policy including:
- set up and prime infusion
- obtain blood or blood products
- check blood or blood products with authorized professional
A Licensed Practical Nurse will:

**V-5-7** Demonstrate knowledge and ability to monitor, regulate and discontinue blood or blood products.

**V-5-8** Demonstrate knowledge and ability to identify a reaction to blood or blood products according to agency policy including:
- anaphylaxis
- abdominal status (pain, nausea)
- abnormal bleeding
- abnormal breath sounds (cough, dyspnea, wheezing)
- chest flank or back pain
- circulatory overload
- elevated blood pressure
- embolus
- increased temperature
- mental state (anxious, drowsy, calm)
- sepsis
- skin color and appearance (urticaria, jaundice)
- urine output and color

**V-5-9** Demonstrate knowledge and ability to manage a reaction to blood or blood products according to agency policy.

**Note:** LPNs are not authorized to provide the restricted activity of administering (initiation of) blood or blood products.
Major Competency Area:  V
Infusion Therapy

Competency:  V-6
Epidural and Spinal Infusions

Date:  June 1, 2015

A Licensed Practical Nurse will:

V-6-1  Demonstrate knowledge of epidural infusions including:
• calculate infusion rates
• client safety
• infusion equipment/pumps
• neurological assessment and client monitoring
• administration of fluids and medications

V-6-2  Demonstrate knowledge and ability to manage complications of epidural and spinal infusion therapy including:
• abnormal lab values
• allergic reactions
• fluid/medication error
• equipment/line problems
• hemorrhage
• infection
• infiltration
• post epidural cerebrospinal fluid leak/headache

V-6-3  Demonstrate knowledge and ability to manage client care following epidural or spinal regional anesthesia/pain block.

V-6-4  Demonstrate knowledge and ability to monitor and regulate epidural infusions.

Note:  LPNs are not authorized to initiate or remove epidural and spinal catheters.
Major Competency Area: V
Infusion Therapy

Competency: V-7
Total Parenteral Nutrition

Date: June 1, 2015

A Licensed Practical Nurse will:

V-7-1 Demonstrate knowledge of total parenteral nutrition according to:
- composition:
  - dextrose
  - amino acids
  - protein
  - minerals
  - fats
  - vitamins
  - trace elements
- indications for use:
  - absorption impairment
  - inability to tolerate enteral feeding
  - gastro-intestinal tract blockage
  - nutritional impairments

V-7-2 Demonstrate knowledge and ability to monitor, regulate and discontinue total parenteral nutrition.

V-7-3 Demonstrate knowledge and ability to manage side effects associated with total parenteral nutrition.

V-7-4 Demonstrate knowledge and ability to manage complications associated with total parenteral nutrition including:
- convulsion or seizure
- hepatic dysfunction (fatty liver disease, jaundice, hepatomegaly, cholelithiasis)
- metabolic imbalance (hyper/hypoglycemia, hyper/hypokalemia, hyper/hypocalcemia)
- nutritional imbalance
- poor night vision

Note: LPNs are not authorized to provide the restricted activity of administering (initiation of) total parenteral nutrition.