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**OPINION: INFUSION  
THERAPY/VENIPUNCTURE:  
THE ROLE OF THE LICENSED PRACTICAL  
NURSE**  
**APPROVED: 7/95**  
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**ORIGINATING COMMITTEE:  
SCOPE OF PRACTICE COMMITTEE**

Within the Scope of Practice of   x   RN   x   LPN

### **ADVISORY OPINION INFUSION THERAPY/VENIPUNCTURE: THE ROLE OF THE LICENSED PRACTICAL NURSE**

It is within the scope of practice for a Licensed Practical Nurse (LPN) to provide-infusion therapy within their scope and training if they are delegated to do so by an RN or licensed independent practitioner (LIP) and the following requirements are met.

#### **I. GENERAL REQUIREMENTS:**

- A. Written policies and procedures which include but are not limited to, which medication classes the LPN can and cannot administer either by intravenous (IV), intraosseous (IO) or subcutaneous (Subq) routes are maintained by the employer.
- B. LPNs are considered to have **basic training** when the only training received is the education contained in their core curriculum or in an organized course of instruction which meets the core curriculum standards.
- C. LPNs are considered to have **advanced training**, if they have documentation of the successful completion of an instructional program that meets the criteria in section II.
- D. Documentation of competency validation appropriate to the training level, including venipuncture and safe medication/ infusion practice, is on file with the employer. Each facility should determine frequency of re-evaluation of competency.

## II. COURSE OF INSTRUCTION:

- A. Formal instruction for Advanced IV infusion therapy includes, but is not limited to:
  - 1. Anatomy and physiology of skin and vascular systems of the upper extremities.
  - 2. Indications for clinical implications of infusion therapy
  - 3. Appropriate patient preparation.
  - 4. Infection prevention and safety.
  - 5. Peripheral-short venipuncture technique and discontinuation.
  - 6. Technique for flushing all types of IV lines.
  - 7. Principles of IV therapy, including medication administration, care and maintenance of peripheral-short and peripheral-midline, PICC, and central line catheters.
  - 8. Fluid and electrolytes/homeostasis.
  - 9. Complications of IV therapy, local, mechanical and systemic.
  - 10. Nursing care responsibilities and documentation.
  - 11. Pharmacology/calculations and nursing implications for selected IV fluids and medications.
  - 12. Board of nursing statutes/rules/advisory opinion/policies and procedures, including delegation/supervision responsibilities.
  - 13. Phlebotomy techniques for drawing from midlines, implanted ports or central lines.
- B. Formal instruction related to IO infusion therapy includes, but is not limited to:
  - 1. Completed advanced IV infusion therapy training
  - 2. Anatomy and physiology of appropriate insertion sites
  - 3. Insertion and removal techniques specific to IO insertions
  - 4. Contraindications for IO
  - 5. Complication management including infiltration, extravasation, and infection
  - 6. Nursing responsibilities: patient education; preparing/monitoring the infusion; insertion of devices and sites changes, monitoring for complications.
- C. Formal instruction related to Subq infusion therapy includes, but is not limited to:
  - 1. Completed advanced IV infusion therapy training
  - 2. Anatomy and physiology related to subcutaneous infusion.
  - 3. Insertion techniques specific to subcutaneous infusion. Generally the subcutaneous access device is placed in the abdomen, upper arm, or thigh in the subcutaneous tissue
  - 4. Complications and management techniques to include potential adverse reactions: inflammation of the site, occluded tubing, lack of absorption, fluid overload, extravasations, bacteremia, and thrombosis.
  - 5. Nursing responsibilities: patient education; preparing/monitoring the infusion; insertion of devices and sites changes, monitoring for complications.
- D. Recommended instructor qualifications:
  - 1. Bachelor's prepared Registered Nurse (BSN)
  - 2. Minimum of two years direct patient care nursing practice
  - 3. Substantial IV therapy experience

**III. Description of devices and scope for LPNs with basic and advanced training:**

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| <p><b>All devices and LPNs who have both basic and advanced training:</b></p>   | <ul style="list-style-type: none"> <li>• Calculation of infusion rates for medicated and unmedicated solutions.</li> <li>• Regulation of unmedicated IV solutions (i.e. normal saline, D5W)</li> <li>• Monitoring, inspection and reporting of complications of all vascular access sites.</li> <li>• Providing intake and output</li> <li>• Observing patient responses and recognizing and reporting adverse reactions.</li> </ul> |  |
| <p><b>Vascular Access Device (VAD)</b></p>  | <p><b>LPNs with basic IV training</b></p>  | <p><b>LPNs with advanced training</b><br/>(the tasks listed under the basic training, Plus):</p>   |
| <p><b>Peripheral Short IV catheter</b><br/>(Less than 3 inches in length and usual dwell time 72-96 hrs)</p>  | <ul style="list-style-type: none"> <li>• Changing existing IV fluids (medicated and unmedicated)</li> <li>• IV site care</li> <li>• Removal of catheters, <i>excluding catheters placed in the external jugular vein.</i></li> </ul>   | <ul style="list-style-type: none"> <li>• Insertion and routine flushes with saline or heparin per facility protocol. <i>Excludes the external jugular site.</i></li> <li>• Administration of antibiotics/anti-infectives (except Amphotericin B or Liposomal Amphotericin) via a piggyback including the use of admixture medications (e.g., powdered form of medications attached to a solution requiring mixing before use).</li> <li>• Ultrasound to gain peripheral access with additional training and competency on file with the employer.</li> </ul> |
| <p><b>Peripheral Midline</b><br/>(between 7-15 inches long, dwell time up to 29 days)<br/>OR<br/><b>PICC Line</b><br/>(peripherally Inserted catheter)</p>      | <ul style="list-style-type: none"> <li>• Changing existing IV fluids (medicated and unmedicated)</li> <li>• Catheter site care including cap and dressing changes</li> <li>• Removal of midline designated catheters only.</li> <li>• <i>Excludes the removal of PICC lines.</i></li> </ul>  | <ul style="list-style-type: none"> <li>• Routine flushes with saline or heparin per facility protocol.</li> <li>• Administration of antibiotics/anti-infectives (except Amphotericin B or Liposomal Amphotericin) via a piggyback including the use of admixture medications (e.g., powdered form of medications attached to a solution requiring mixing before use).</li> <li>• Blood draws from line.</li> </ul>   |
| <p><b>Central Lines, aka CVAD's</b><br/>(inflexible, approximately 10 inches long, dwell time 7-10 days)<br/><i>Exclusion: temporary dialysis catheter.</i></p> | <ul style="list-style-type: none"> <li>• Changing existing IV fluids (medicated and unmedicated)</li> <li>• Catheter site care including cap and dressing changes</li> <li>• <i>Removal of a central line is NOT within the scope.</i></li> </ul>  | <ul style="list-style-type: none"> <li>• Routine flushes with saline or heparin per facility protocol.</li> <li>• Administration of antibiotics/anti-infectives (except Amphotericin B or Liposomal Amphotericin) via a piggyback including the use of admixture medications (e.g., powdered form of medications attached to a solution requiring mixing before use).</li> <li>• Blood draws from line.</li> </ul>   |
| <p><b>Implanted Subcutaneous Ports</b><br/>(aka Portacaths®)</p>  | <ul style="list-style-type: none"> <li>• Changing existing IV fluids (medicated and unmedicated)</li> <li>• <i>Access and de-accessing of port is NOT within the scope.</i></li> </ul>   | <ul style="list-style-type: none"> <li>• Routine flushes with saline or heparin per facility protocol.</li> <li>• Administration of antibiotics/anti-infectives (except Amphotericin B or Liposomal Amphotericin) via a piggyback including the use of admixture medications (e.g., powdered form of medications attached to a solution requiring mixing before use).</li> <li>• Blood draws from line.</li> </ul>   |

| <b>Vascular Access Device (VAD)</b>   | <b>LPNs with basic training</b>  | <b>LPNs with Advanced training and Additional Competency</b><br>(the tasks listed under for the basic training plus):  |
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| <b>Intraosseous (IO)</b><br>(Catheter inserted directly into marrow of a bone)                              | <ul style="list-style-type: none"> <li>• Changing existing IV fluids (medicated and unmedicated)</li> <li>• Monitoring site for complications</li> </ul> | <ul style="list-style-type: none"> <li>• Insertion with additional training and competency.</li> <li>• Removal of catheters</li> <li>• Routine flushes with saline or heparin per facility protocol.</li> <li>• Administration of antibiotics/anti-infectives (except Amphotericin B or Liposomal Amphotericin) via a piggyback including the use of admixture medications (e.g., powdered form of medications attached to a solution requiring mixing before use).</li> </ul> |
| <b>Subcutaneous Infusion Therapy</b><br>(Subcutaneous access device placed in abdomen, upper arm, or thigh) | <ul style="list-style-type: none"> <li>• Changing existing IV fluids (medicated and unmedicated)</li> <li>• Removal of catheters</li> </ul>              | <ul style="list-style-type: none"> <li>• Insertion and site preparation/changes and dressings.</li> <li>• Administration of antibiotics/anti-infectives (except Amphotericin B or Liposomal Amphotericin) via a piggyback including the use of admixture medications (e.g., powdered form of medications attached to a solution requiring mixing before use).</li> </ul>   |

**IV. Skills that are NOT considered within the scope of an LPN.**

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| Medications not within the scope of an LPN | <p>The LPN <b>cannot</b> administer:</p> <ol style="list-style-type: none"> <li>1. <b>Medications which require close RN monitoring, assessment, or interpretation of data, or titration</b>, for example:<br/>Potassium, i.e. concentration greater than 40 mEq/1000mL:<br/>thrombolytic, fibrinolytic, Parenteral nutrition (PN or TPN), vaso active drugs.</li> <li>2. Intralipids</li> <li>3. Blood, blood products, <math>\alpha</math>-plasma expanders, immunoglobulins, or auto transfusion.</li> <li>4. Antineoplastic drugs</li> <li>5. Investigative or research medications</li> <li>6. Direct IV push except flushes (heparinized or saline)</li> <li>7. IV Medications for procedural sedation/anesthesia or deep sedation</li> <li>8. IV contrast</li> </ol> |
| Other IV therapy actions                   | <ol style="list-style-type: none"> <li>1. The LPN <b>cannot</b>: <ol style="list-style-type: none"> <li>A. initiate, program, administer solutions or medications, repair, or remove the following devices: <ol style="list-style-type: none"> <li>1. Implanted infusion pumps</li> <li>2. Intrathecal, epidural, umbilical, or ventricular reservoirs.</li> </ol> </li> <li>B. Insert, repair, or remove arterial and central catheters, including PICC lines.</li> </ol> </li> </ol>  |

**V. RATIONALE:**

LPNs with additional training and on delegation from an RN or LIP can safely perform infusion therapy within their scope of practice.

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