

TENNESSEE BOARD OF NURSING  
AMENDED POSITION STATEMENT AND EXEMPTION  
RE INTRAVENOUS THERAPY AND  
THE LICENSED PRACTICAL NURSE

D. Shoffner moved and seconded by B. Wallace to extend the following exemptions relative to experience (#1) and course of study (#8):

The Board interprets its practice act and rules to support certain licensed practical nurse's ability to deliver selected intravenous push medications under the delegation of a registered nurse within the following conditions and exclusions:

1. The licensed practical nurse must have a minimum of three years experience as a licensed nurse.
2. The licensed practical nurse practices under the supervision (defined as "overseeing with authority") of the registered nurse who maintains accountability for that delegation. The licensed practical nurse is accountable for his/her acts.
3. The licensed practical nurse may administer IV push medications in peripheral lines only.
4. Competency must be demonstrated to the chief nursing officer.
5. Documentation of competence must be maintained in the LPN's personnel file, signed and attested to by the facility's chief nursing officer.
6. LPNs may administer IV push medications to adults weighing over 80 pounds.
7. LPNs may not administer IV push medications to pediatric or obstetrical patients.
8. It is the intent of the board to set a requirement for the LPN to complete a standardized course of study developed from the Infusion Nurse Society Standards. Until such course is approved by the Board of Nursing, a licensed practical nurse holding a current license to practice, having practiced nursing at least two years and having successfully completed a formal (institution/agency-based) IV therapy training and competency program is exempt from both the three year experience requirement (#1) and the standardized course of study requirement (#8).

In respect to intravenous therapy in general, LPNs may not administer the following fluids/medications/agents or drug classifications:

1. Chemotherapy
2. Serums
3. Oxytocics
4. Tocolytics
5. Thrombolytics
6. Blood or blood products

7. Titrated medications
8. Moderate sedation
9. Anesthetics
10. Paralytics
11. Investigative or experimental drugs

5—yes  
Carried

**Approved by the Board of Nursing 9-2-04**

## TN IV Therapy Course for LPN's

This course is intended to establish a statewide standardized curriculum for the instruction of LPN's who practice IV therapy /IV Push administration in keeping with the Board of Nursing position paper defining the scope of practice. The course is designed for implementation in a variety of settings including facility-based instruction or in partnership with a LPN or RN program.

**Course Title:** IV Therapy for LPN's: Principles and Skills

**Clock Hours:** 40 Clock Hours  
(Potential for 3 hours college credit)

**Prerequisites:** Unencumbered license, satisfactory performance evaluation, and reference from supervisor

**Instructor qualifications:** Registered nurse with minimum 3 years current clinical experience. INS certification recommended

### **Description:**

This course is designed to offer LPN's the basic knowledge necessary to safely assist the registered nurse in administering and monitoring selected peripheral IV medications under the supervision of the registered nurse.

### **Course Overview:**

The course will present the concepts necessary to safely maintain peripheral IV therapy and to administer selected drugs. Related anatomy and physiology, IV fluids, delivery methods, pharmacology and administration techniques related to selected drugs, preventing and monitoring for complications in IV therapy, legal and ethical issues, documentation standards, role of RN supervisor, and other topics will be covered.

### **Course Outcomes:**

Upon successful completion of this course, the student will be able to:

1. describe the role of the LPN and RN supervisor in peripheral IV therapy;
2. Relate concepts of anatomy and physiology critical to safe peripheral IV therapy;
3. Identify legal, ethical, and professional issues in IV therapy;
4. Explain potential complications of IV therapy;
5. Relate appropriate nursing intervention for preventing and monitoring for complications of peripheral IV lines;
6. Calculate dosage and rate of flow;
7. Explain specific nursing implications in administering selected IV drugs;

8. Demonstrate appropriate administration techniques for selected IV drugs.

**Required Texts/Materials:**

Moreau, D. (Ed.) (2002). *IV therapy made incredibly easy*. Springhouse, PA: Springhouse.

Weinstein, S.M. (2001). *Plumer's principles and practice of intravenous therapy*. Lippincott, PA: Lippincott.

**Recommended Texts/References:**

Buchholz, S., & Henke, G. (2003). *Henke's med-math: Dosage calculation, preparation, and administration*. Lippincott, PA: Lippincott Williams & Wilkins.

Phillips, L.D., & Huhn, M.A. (1999). *Manual of IV medications*. Lippincott, PA: Lippincott-Raven Publishers.

Tortora, G., & Grabowski, S.R. (2002). *Principles of anatomy & physiology*. (10th ed.). Hoboken, NJ: John Wiley & Sons, Inc.

**Learning Strategies:**

Lecture

Discussion

Interactive Computer Programs

Readings

Demonstration

**Evaluation:**

Exam: Passing Score of 80%

Demonstrated Clinical Skills and Competency

**Topical Outline:**

- I. Objectives and uses of IV therapy
- II. Concepts of anatomy and physiology
  - A. Understanding basic fluid and electrolytes
  - B. Identifying fluid imbalances
  - C. Anatomy and physiology of skin and veins
- III. IV solutions and delivery methods
- IV. Safe IV administration
  - A. Initiation of peripheral lines
    1. Set-up and insertion technique
    2. Site selection and preparation

- B. Maintenance
  - 1. Calculation of flow rate
  - 2. Changing IV solutions and administration sets
  - 3. Site dressings
- C. Safe discontinuation of peripheral lines
- D. Potential complications, prevention, monitoring, and reporting
  - 1. Phlebitis
  - 2. Infiltration
  - 3. Catheter dislodgement
  - 4. Occlusion
  - 5. Vein irritation or pain at site
  - 6. Hematoma
  - 7. Thrombosis
  - 8. Thrombophlebitis
  - 9. Circulatory overload
  - 10. Systemic infection
  - 11. Air embolism
  - 12. Allergic reaction
- V. Administering of selected peripheral IV drugs
  - A. Techniques of administration
    - 1. Intermittent infusion techniques
    - 2. Direct infusion through an existing line (push)
  - B. Safe administration via IV push of selected drugs (contraindications, side effects, purpose of drug, monitoring for effectiveness and complications, minimizing chances of complications, special considerations, generic and trade names)
    - 1. General considerations
      - a. Five rights
      - b. Documentation
    - 2. Selected drugs
      - a. Antibiotic Agents
      - b. Antiemetic Agents
      - c. Antihistamine Agents
      - d. Central Nervous System Agents
      - e. Diuretic Agents
      - f. Drugs for Pain
      - g. Steroids
  - C. IV therapy (fluids/medications or drug classifications) LPN's may not administer:
    - 1. Chemotherapy
    - 2. Serums
    - 3. Oxytocics
    - 4. Tocolytics
    - 5. Thrombolytics
    - 6. Blood or blood products
    - 7. Titrated medications
    - 8. Moderate sedation

- 9. Anesthetics
- 10. Investigative or experimental drugs
- VI. Role of LPN and RN supervisor in safe IV drug administration
  - A. Nurse practice act
  - B. Tennessee State Regulations & Board of Nursing Policies
  - C. Critical reporting
  - D. Departmental or institutional policies and procedures
- VII. Legal, ethical and professional considerations
  - A. Professional standards of care
  - B. Liability and malpractice
  - C. Responsibility and accountability
  - D. Quality improvement
  - E. Ethical issues
  - F. Error reporting

**This course will not cover materials related to IV therapy for pediatric or obstetrical patients. The materials in this course are designed to focus on adult care and administration of selected classes of medications.**

**NOTE: Additional modules may be developed addressing IV therapy in pediatrics and/or accessing central lines for organizations who allow this practice within the scope of practice limits defined by the Board of Nursing**



<p>Module 2</p>	<p><b>Application of IV Nursing Society Standards of Practice</b>  The Standards  Policies &amp; Procedures  Competencies in Practice - Instruction  Planning Assessment &amp; Practice Criteria  Clinical Management  Site Selection  Catheter Selection  Insertion Site Preparation  Catheter Placement  Dressings (CDC Guidelines and Hospital Policy)  Biohazardous Waste Handling  Delivery Methods  IV Set Change (CDC Guidelines and Hospital Policy)  Change of Fluids  Monitoring  Documentation  Discontinuation</p> <p><b>Vascular Anatomy &amp; Therapeutic Goals</b>  Common Venous Complications</p> <p><b>Systems &amp; Organs Involved in IV Therapy</b>  Integumentary  Epidermis &amp; Dermis  Superficial Fascia  Neurological System  Cardiac System  Respiratory System  Circulatory System  Superficial Veins  Deep Veins  Differences in Arteries &amp; Veins  Vascular Layers</p>	<p>Weinstein pp. 37-46, 51-59  Moreau pp. 16-20, 26, 33-35, 76-78, 88, 172-185  Additional Resources:  INS Fundamentals CD-ROM</p> <p>Taskforce to develop recommended teaching strategies and sample case studies</p>
<p>Module 3</p>	<p><b>Fluid &amp; Electrolyte Balance</b>  Fluid Content of Body  Fluid Compartments  Body Fluid Composition  Electrolyte Composition  Characteristics of Fluids  Osmolality  Acid-Base Balance  Acid-Base Imbalances</p>	<p>Weinstein pp. 88-116  Moreau pp. 2-13</p> <p>Focus on clinical scenarios and case studies related to clinical applications</p>

	<p>Respiratory Disturbances  Metabolic Disturbances  Homeostatic Mechanisms  Kidney Functions  Skin &amp; Lung Functions  Other Functions of Systems &amp; Organs  Electrolytes -Focus on Signs and Symptoms  and reporting those findings  Potassium  Hypokalemia  Hyperkalemia  Sodium  Hyponatremia  Hypernatremia  Calcium  Hypocalcemia  Hypercalcemia</p>	
Module 4	<p><b>Objectives of Fluid &amp; Electrolyte Therapy</b>  Maintenance  Water  Glucose  Proteins  Vitamins  Restoration of Previous Losses  Replacement of Present Losses</p> <p><b>Fluid &amp; Electrolyte Disturbances (Specific Patients)</b>  Surgical Patients  Burn Patients  Formulas for Fluid Replacement  Assessment  Diabetic Patients  Seizure Patients</p>	<p>(Continue Readings from Module 5)</p> <p>Critical focus on clinical application of knowledge and case studies</p>
Module 5	<p><b>Principles of Parenteral Fluid Administration</b>  Parenteral Fluids  Particulate Matter  PH Value  Tonicity  Kinds &amp; Composition of Fluids  D5W  Indications for Use  Dangers of Use  Administration  0.9% NS  Indications for Use</p>	<p>Weinstein pp. 119-147  Moreau pp. 14, 23-25</p>

	<p>Dangers of Use Administration</p> <p>D5NS Indications for Use Dangers of Use Administration</p> <p>D10NS Indications for Use Dangers in Use Administration</p> <p>0.45%NS Indications for Use Dangers in Use Administration</p> <p>Hypotonic Multiple Electrolyte Fluids Indications for Use Dangers in Use Administration</p> <p>Hypertonic Multiple Electrolyte Fluids Indications for Use Dangers in Use Administration</p> <p>Isotonic Multiple Electrolyte Fluids Indications for Use Dangers in Use Administration</p> <p>Alkalizing Fluids Indications for Use Dangers in Use Administration</p> <p>Sodium Bicarbonate Indications for Use Dangers in Use Administration</p> <p><b><i>Evaluating Water &amp; Electrolyte Balance</i></b></p> <p>Monitoring Parameters</p> <p>CVP</p> <p>Pulses</p> <p>Hand Veins</p> <p>Neck Veins</p> <p>Weight</p> <p>I/O</p> <p>Thirst</p> <p>Skin Turgor</p> <p>Edema</p>	
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	<b>Clinical Disturbances</b> Circulatory Overload Isotonic Contraction Hypertonic Expansion Hypertonic Contraction Hypotonic Expansion Hypertonic Contraction	
Module 6	<b>Potential Complications &amp; Ongoing Monitoring</b> Understanding Complications Local Complications Thrombosis Phlebothrombosis Thrombophlebitis Contributing Factors Treatment Prevention Infiltration Extravasation Systemic Complications Septicemia Pulmonary Embolism Air Embolism Catheter Embolism Pulmonary Edema Speed Shock Intravascular Infection Additional Hazards Particulates	Weinstein pp. 149-177 Moreau pp. 81-87, 194-200
Module 7	<b>Principles &amp; Use of IV Equipment</b> Computation of Administration Rate Safety Principles & Selection of Equipment Safety Devices Needleless Systems Vascular Access Devices IV Catheters Winged Infusion Needles Fluid Containers Glass Plastic Infusion Control Devices Restrictions in use of PCA pumps/insulin pumps  <i>Clinical Lab Practice Time</i> (Dosages &	Weinstein pp. 199-211 Moreau pp. 21, 27-29, 44

	Calculations)	
Module 8	<p><b>Techniques of IV Therapy</b></p> <ul style="list-style-type: none"> <li>Preparation</li> <li>Clinical Conditions</li> <li>Type of Therapy Prescribed</li> <li>Duration of Therapy Prescribed</li> <li>Vascular Assessment</li> <li>Considerations <ul style="list-style-type: none"> <li>Location</li> <li>Condition of Vein</li> <li>Purpose of Infusion</li> <li>Selection of the Device</li> </ul> </li> <li>Considerations Before Beginning Infusion <ul style="list-style-type: none"> <li>Solution &amp; Container</li> <li>Attaching Administration Set</li> <li>Height of Container</li> </ul> </li> <li>Considerations for Venipuncture Site</li> <li>Step by Step Demonstration</li> </ul> <p><b>Introduction to CVL</b></p> <ul style="list-style-type: none"> <li>Types</li> <li>Care</li> <li>Dressing Changes</li> <li>Monitoring</li> <li>Complications</li> <li>Facility Specific policies and practices</li> </ul> <p><b>Lab Practice Time</b> (Review Techniques/Principles of IV Insertion, Establishing, Maintaining, and Discontinuing Fluids)</p>	<p>Weinstein pp. 231-244 Moreau pp. 42-44, 47-74</p> <p><b>Introduce the Board of Nursing Position statement, defined scope of practice, and limits</b></p> <p><b>Disclaimer: This module is intended to introduce the LPN to the basics of central venous lines only. If administration of medications via central lines is a component of the LPN's practice, the facility will need to include additional training/competency modules beyond this course. This module and any additional modules on central lines are not intended to expand the role of the LPN beyond the scope of practice defined by the Board of Nursing.</b></p>
Module 9	<p><b>Transfusion Therapy</b></p> <ul style="list-style-type: none"> <li>An Overview of Transfusion Therapy</li> <li>Purpose of Transfusion Therapy</li> <li>Basic Immunohematology <ul style="list-style-type: none"> <li>Mechanism of Immune Response</li> <li>Mechanism of RBC Destruction</li> </ul> </li> <li>Blood Groups</li> <li>Pretransfusion Testing <ul style="list-style-type: none"> <li>Donor</li> <li>Recipient</li> <li>Autologous Donations</li> </ul> </li> <li>Anticoagulants &amp; Preservatives</li> <li>Whole Blood <ul style="list-style-type: none"> <li>Modified</li> <li>Irradiated</li> </ul> </li> </ul>	<p>Weinstein pp. 411-450 Moreau pp. 203-236</p> <p><b>Note the Board of Nursing position on the role of the LPN in administration of blood is limited to monitoring and discontinuing blood/products.</b></p>

	<p>RBC Components  PRBC's  RBC's, Leukocytes Reduced  RBC's, Rejuvenated  Platelets  Pooled  Leukocytes Reduced  Pheresis  Plasma  Liquid  FFP  Hetastarch  Factor 8  Albumin  IVIG  Blood Administration  Blood Samples  Issue &amp; Transfer  Patient &amp; Blood Identification  Reducing Blood Exposure  Handling Blood  Venipuncture  Rate of Infusion  Blood Filters  Patient Monitoring &amp; Education  Documentation  Disposal of Equipment  Transfusion Reactions – Emphasis on observing the patient for reactions, reporting and documenting those observations  Immediate Effects  Delayed Effects</p> <p><b>Lab Practice Time</b> (Maintaining, Documenting, and Discontinuing Blood Products)</p>	
Module 10	<p><b>IV Drug Administration</b>  Advantages of the IV Route  Pharmacokinetics  Therapeutic Index  Plasma Concentrations  Therapeutic Concentrations  Loading Doses  Drug's Half-Life  Disadvantages of the IV Route  Incompatibilities  Chemical</p>	<p>Weinstein pp. 452-471  Moreau pp. 1-2, 157-171</p>

	<p>Physical Vascular Irritation</p> <p><b>Safeguards to Minimize Hazards of Administration of IV Drugs</b>  Approved Drug List (Classifications/Drugs)  Controlled Substance Act  Safe Administration &amp; Preparation  Drug Delivery Systems  Monitoring Response to Treatment  Accurate Calculations  Expiration Dates  Regulation of Investigational Drugs  Patient Education</p>	<p><b>Restate Board's Position and defined limits</b></p>
Module 11	<p><b>Safe Administration of Selected Drugs</b>  5 Rights  Documentation  Selected Drugs Which May Be Administered  Antibiotic Agents  Antiemetic Agents  Antihistamine Agents  Central Nervous System Agents  Diuretic Agents  Drugs for Pain  Steroids  Drugs/Drug Classifications LPN'S Are Not Allowed to Administer:  1. Chemotherapy  2. Serums  3. Oxytocics  4. Tocolytics  5 Thrombolytics  6. Blood or blood products  7. Titrated medications  8. Moderate sedation  9. Anesthetics  10. Investigative or experimental drugs</p> <p><i>Lab Practice</i> with IV Push Medications</p>	<p>Selected Readings from Buchholz and Henke IV Drug Administration Book</p>
Module 12	<p><b>IV Therapy in an Older Adult Patient</b>  Demographics  Physiology of Aging  Homeostasis  Immune System</p>	<p>Weinstein pp. 652-662  Moreau pp. 193</p>

	Cardiovascular System Skin & Connective Tissue Fluid Balance Senses Vascular System Psychological Changes Access & Equipment Flow Control Site Selection Technique Maintenance & Monitoring  <i>Lab Practice</i> (All Skills)	
Module 13	<b>Critical Competencies Exam (CCE)</b>	

**Additional Modules may be developed for Pediatric Population and Central Lines within the Limits on IV Push established by the Board of Nursing**

**Testing guidelines and sample competency skills checklists: A sample clinical skills competency will be included in the course and testing guidelines for the required 50 question written exam.**

**DRAFT**  
**LPN IV Therapy Course and**  
**Testing Guidelines**

Record Keeping

Course Providers shall maintain the following records for at least five years:

1. Records of the names and qualifications of the course coordinator and each faculty/instructor.
2. An outline of the classroom and clinical curricula including time segments
3. Methods of student evaluation used, including a copy of the competency examination (written and clinical)
4. Class roster and records listing the name of each individual successfully completing the course; license number; and whether the individual passed or failed, including competencies and scores.

Testing Guidelines

1. Written test of 50 questions with passing score of 80% or better. Clinical competency with passing score of 100%
2. No more than 25% of the paper and pencil test questions should be knowledge level questions as determined by Bloom's taxonomy. The remaining questions should be at the comprehension and application levels in the taxonomy.
3. Definitions:
  - Knowledge means the course content that deals with the cognitive domain.
  - Skills mean the course content concerned with the psychomotor domain. The skill content may be tested through the paper and pencil test or hands-on clinical test.
  - Ability means the course content concerned with judgement and application of the knowledge and skill content.
4. Testing Areas of Focus:
  - TN Nurse Practice Act, Regulations, National standards and Agency policies 7%
  - Anatomy and Physiology 10%
  - Equipment 15%
  - Drugs and Solutions 23%
  - Administration Procedures 25%
  - Complications 20%

East Tennessee State University  
 College of Nursing  
**Administering IV Push Medications with Continuous IV Infusion**  
**CCE Check Sheet**

	S	US
Check the medication order.		
Assess the client's allergies.		
Look medication up in drug book to check for needed information such as rate of infusion.		
Prepare the medication at the medication cart or in the medication room.		
Label the IV medication with the name of the drug, time, date, and your initials.		
Gather MAR, IV medication, gloves, and antiseptic swabs.		
Prepare 2 NS 3cc flushes.		
Label the NS flushes as such.		
Identify the client by using bracelet.		
Explain to client procedure.		
Don gloves.		
Assess IV site.		
Close the roller clamp on the continuous IV infusion.		
Find the IV port on the line that is closest to the client.		
Wipe the IV port on the continuous IV line with an alcohol swab.		
Flush the continuous IV line with 3cc NS.		
Attach the medication syringe to the port.		
Administer the medication as ordered and suggested in the IV drug by monitoring the second hand on a watch or clock.		
Assess the client's condition as the medication is being administered.		
After medication has been administered, flush the Heparin Lock with the second 3cc of NS.		
Open the roller clamp to the continuous IV line.		
Check the rate of the continuous IV to ensure accuracy.		
Document the date, time, and IV medication given on the client's MAR.		
Comments:		

East Tennessee State University  
 College of Nursing  
**Administering IV Push Medications with Heparin Lock Device**  
**CCE Check Sheet**

	S	US
Check the medication order.		
Assess the client's allergies.		
Look medication up in drug book to check for needed information such as rate of infusion.		
Prepare the medication at the medication cart or in the medication room.		
Label the IV medication with the name of the drug, time, date, and your initials.		
Gather MAR, IV medication, gloves, and antiseptic swabs.		
Prepare 2 NS 3cc flushes.		
Label the NS flushes as such.		
Identify the client by using bracelet.		
Explain to client procedure.		
Don gloves.		
Assess IV site.		
Open the clamp to the Heparin Lock device if closed.		
Wipe the IV port on the Heparin Lock device with an alcohol swab.		
Flush the continuous IV line with 3cc NS.		
Attach the medication syringe to the port.		
Administer the medication as ordered and suggested in the IV drug by monitoring the second hand on a watch or clock.		
Assess the client's condition as the medication is being administered.		
After medication has been administered, flush the Heparin Lock with the second 3cc of NS.		
Close the clamp on the Heparin Lock device.		
Document the date, time, and IV medication given on the client's MAR.		
Comments:		

East Tennessee State University  
 College of Nursing  
**Administering Secondary (“Piggyback”) Intermittent Infusions with Primary IV  
 CCE Check Sheet**

	S	US
Check the medication order.		
Assess the client’s allergies.		
Look medication up in drug book to check for needed information.		
Prepare the medication at the medication cart or in the medication room.		
Label the IV medication bag/bottle with time, date, and your initials.		
Gather MAR, IV medication bag, IV tubing, needleless or needle device, metal or plastic hook, tape, gloves, and antiseptic swabs.		
Identify the client by using bracelet.		
Explain to client procedure.		
Don gloves.		
Assess IV site.		
Close the roller clamp on the secondary tubing.		
Attach secondary tubing to the IV bag or bottle that contains the medication.		
Remove the cap from the distal end of the secondary tubing.		
Attach the needle or needleless device to the secondary tubing.		
Prime the secondary tubing.		
Wipe the IV port on the primary line with an alcohol swab and attach the needleless or needle device of the secondary medication.		
Lower the primary IV solution below the level of the IV medication bag using the metal or plastic hook provided with the secondary tubing.		
Regulate the drip rate of the IV medication as ordered, or set the infusion pump rate and volume accurately.		
Periodically check the infusion to ensure accuracy of drip or rate and reassess client’s tolerance to medication.		
After medication has infused, ensure that the primary rate is accurate.		
Document the date, time, and IV medication given on the client’s MAR.		
Comments:		

East Tennessee State University  
 College of Nursing  
**Administering Secondary (“Piggyback”) Intermittent Infusions with Heparin Lock Device**  
**CCE Check Sheet**

	S	US
Check the medication order.		
Assess the client’s allergies.		
Look medication up in drug book to check for needed information such as rate of infusion.		
Prepare the medication at the medication cart or in the medication room.		
Label the IV medication bag with the name of the drug, time, date, and your initials.		
Gather MAR, IV medication bag, IV tubing, needleless or needle device, metal or plastic hook, tape, gloves, and antiseptic swabs.		
Prepare 2 NS 3cc flushes.		
Label the NS flushes as such.		
Identify the client by using bracelet.		
Explain to client procedure.		
Don gloves.		
Assess IV site.		
Close the roller clamp on the secondary tubing.		
Attach secondary tubing to the IV bag or bottle that contains the medication.		
Remove the cap from the distal end of the secondary tubing.		
Attach the needle or needleless device to the secondary tubing.		
Prime the secondary tubing.		
Wipe the IV port on the primary line with an alcohol swab.		
Open the Heparin Lock device if clamp is closed.		
Flush the Heparin Lock with 3cc NS.		
Hang the IV medication bag using the metal or plastic hook provided with the secondary tubing.		
Attach the needleless or needle device of the secondary medication.		
Secure the line to the client’s arm in a comfortable position.		
Regulate the drip rate of the IV medication as ordered, or set the infusion pump rate and volume accurately.		
Periodically check the infusion to ensure accuracy of drip or rate and reassess client’s tolerance to medication.		
After medication has infused, unhook the piggyback, and flush the Heparin Lock with the second 3cc of NS.		
Document the date, time, and IV medication given on the client’s MAR.		
Comments:		