Name of Policy:	**Intravenous Therapy**
Policy Number:	3364-110-05-01
Department:	Nursing Service
Approving Officer:	Chief Nursing Officer (CNO)
Responsible Agent:	Chief Nursing Officer (CNO)
Scope:	The University of Toledo Medical Center

THE UNIVERSITY OF TOLEDO MEDICAL CENTER

Effective Date: 3/27/2024
Initial Effective Date: 6/1979

_____ New policy proposal
_____ Major revision of existing policy
_____ Minor/technical revision of existing policy
__X__ Reaffirmation of existing policy

(A) Policy Statement

(1) Performance of venipuncture is recognized as a responsibility of the Registered Nurse (RN) or a member of the Phlebotomy Team. The Phlebotomists job is to do venipunctures only. The RN may immediately convert the device to an Intravenous (IV) or INT. Management of Intravenous Therapy is recognized as a responsibility of the RN .

NOTE: An IV therapy course is not required for an Licensed Practical Nurse (LPN) to perform the following procedures:

- Verification of the type of peripheral IV solution being administered.
- Examination of a peripheral infusion site and the extremity for possible infiltration.
- Regulation of a peripheral IV infusion according to the prescribed flow rate.
- Discontinuation of a peripheral IV device at the appropriate time.LPN Performance of routine dressing changes at the insertion site of peripheral venous IV.
- RN Performance of routine dressing changes at the insertion site of peripheral venous IV or arterial infusion, peripherally inserted central catheter, or central venous pressure subclavian infusion.

(2) The RN must perform a patient assessment prior to directing the LPN to complete the IV therapy procedure. The RN remains accountable and responsible for the IV therapy procedures directed to the LPN. The Licensed Practical Nurse (LPN), who has certification from the Ohio Board of Nursing (OBN) verifying the successful completion of a course in intravenous therapy, may perform limited intravenous therapy procedures on patients.

(3) The LPN may only perform the following limited IV procedures at the direction of a Registered Nurse (RN) or a licensed Physician, Dentist, Optometrist, or Podiatrist. The RN, Physician, Dentist, Optometrist or Podiatrist giving the direction must be on the premises where the procedure is to be performed or accessible by some form of telecommunication.

(B) Purpose of Policy

- To provide safe and consistent guidelines for the provision of I.V. therapy, and clearly identify the qualified LPN's role with respect to IV therapy.

(C) Procedure RN

1. RN's may perform venipuncture after they have completed instruction with clinical supervision. It may be done for obtaining laboratory specimens for diagnostic procedures or for the initiation of IV therapy.

2. Nursing service procedures must be followed for the management of all types of I.V. therapy.

3. All I.V. orders must contain the name of the desired solution, amount and rate of infusion.

4. Nursing staff may initiate I.V. therapy in adults in the upper extremities. Feet or lower extremities may be utilized only with physician approval. Central lines such as subclavian or jugular must be initiated by a physician.

5. Nursing staff may discontinue and restart any peripheral I.V. when there is evidence of infection, infiltration, purulence or phlebitis or after 96 hours. Central venous lines, subclavian, jugular, cut down catheters or arterial lines must be removed by a physician. Some specialty units may follow special policies regarding removal of central lines and arterial lines as long as competencies are current.

6. All patients receiving continuous I.V. therapy should be monitored on Intake and Output when indicated.

7. Irrigation of an occluded peripheral I.V. line using a bolus of solution may not be done by nursing staff. Aspiration to clear an occluded line may be attempted using extreme caution not to push any materials into the venous system.

8. To restore patency to central lines, after obtaining a physician's order, refer to Elsevier: Clinical Skills.

9. At the beginning of each shift, it is the responsibility of the RNs to assess all I.V.'s for patency, solution, rate, amount remaining, expiration date/time of the solution, and IV tubing. Continued observation of the site with documentation should continue throughout the shift Every two hours is recommended.

10. Once a shift, or more frequently if indicated, nursing staff must document in the patient's medical record the appearance/condition of the I.V. site.

11. Routinely, when any I.V. solution is hung it must be documented in the patient's medical record including solution, rate, additives, and time or as per unit procedure.

12. Initial documentation in HED for initiation of I.V. therapy must include I.V. site, size and type of cannula and number of attempts needed to successfully place.

13. A keep vein open (KVO) rate for all I.V.'s is recognized as 10 ml/hr of Normal Saline 0.9% sodium chloride unless rate or solution specified by prescribing physician.

14. Armboards may be utilized when appropriate according to the patient's needs and condition.

<u>Pediatric I.V. Therapy</u>

14. All pediatric I.V. Therapy must be maintained with the use of a rate-regulating device; nursing discretion should be used to determine the necessity with older children. The fluid level in the buretrol is never to be more than the amount to be infused in two hours.

15. KVO rate for pediatric patients is recognized as a rate between 5 ml per hour of Normal saline 0.9% sodium chloride unless otherwise specified by the prescribing physician

16. Selection of the appropriate site for pediatric I.V. therapy in order of preference are: arms, hands, feet or ankles, then scalp and as otherwise designated.

17. Needle size utilized for pediatric I.V. therapy may be between 25 and 19 gauge unless otherwise specified.

18. Pediatric dressings will be changed as often as needed, unless ordered differently by the physician. Nursing staff may discontinue and restart any peripheral I.V. when there is evidence of infection, infiltration, purulence or phlebitis or after 96 hours.

19. For pediatric patients, do not replace peripheral catheters unless clinically indicated.

(C) Procedure LPN

(A) IV therapy procedures for qualified LPN with IV course or approved LPN program.

1. The qualified LPN may prepare an individual for intravenous therapy and select the peripheral intravenous infusion site only in the hands, the forearms, and/or the antecubital fossa area.

2. The qualified LPN may assemble and maintain equipment for:
   a. Gravity drip infusion; or
   b. Electronic controlling devices excluding patient-controlled devices.

3. The qualified LPN may perform venipuncture with a needle or catheter no longer than one and one-half inches only into a peripheral vein of the hand, forearm, and/or antecubital fossa area.

4. The qualified LPN may initiate and maintain the infusion of select intravenous solutions as ordered by a Licensed Physician, Dentist, Optometrist or Podiatrist and calculate infusion rate using standard formulas. Select intravenous solutions are limited to one, or a combination of, the following:
   a. 5% Dextrose
   b. Normal saline
   c. Lactated Ringers
   d. 0.45% Sodium/Chloride
   e. 0.2% Sodium Chloride
   f. IV Piggybacks only with an antibiotic additive

5. The qualified LPN may maintain an IV by hanging subsequent containers of the IV solution that contains vitamins or electrolytes, if an RN initiated the infusion of that same IV solution.

6. The qualified LPN may regulate and maintain an infusion of the allowed intravenous solutions at the prescribed flow rate through peripheral IV lines.
7. The qualified LPN may perform routine intravenous administration set tubing changes, dressing changes, and discontinue IV's only on IV lines that terminate in a peripheral vein.

8. The qualified LPN may initiate, convert and flush peripheral intermittent infusion devices. The peripheral intermittent infusion devices may be flushed with normal saline flush solutions to maintain peripheral venous patency.

   No other medication may be given via a direct IV route.

9. The qualified LPN should observe, report and record the individual's responses to the intravenous therapy including the condition of the intravenous infusion site.

10. Even though the law allows a limited role for the LPN in IV therapy, the following are prohibited practices even for the LPN who may be authorized to engage in IV therapy:

    Initiating or maintaining:
    - Blood or blood components

- Solutions for total parenteral nutrition
- Any cancer therapeutic medication including but not limited to cancer chemotherapy or an antineoplastic agent
- Solutions administered through any central venous line or arterial line or any other line that does not terminate in a peripheral vein.
- Any investigational or experimental medication

Approved by: /s/ Kurt Kless MSN, MBA, RN, NE-BC Chief Nursing Officer Date *Review: Policy & Standard Committee, 7/11, 3/18, 3/21* *Revision Completed By:* Julie Windle BSN, RN & Sasha Clark MBA, BSN, RN	**Review/Revision Date:** 1982 1989 7/14/2008 1983 1990 6/17/2010 1984 1993 8/2011 1985 1995 3/2018 1986 4/1999 3/2021 1987 3/2001 3/2024 1988 1/2005 **Next Review Date:** 3/2027
Policies Superseded by This Policy: 5-01	