PROCEDURE

TITLE: I.V. THERAPY PROCEDURE

PURPOSE: To outline the nursing role in IV Therapy

SUPPORTIVE DATA: To be performed by registered nurses and LPNs who are I.V. Therapy qualified.

EQUIPMENT LIST:

1. Appropriate Tubing
2. I.V. Therapy Start kit
3. I.V cannula
4. Extension tubing
5. Solution as ordered
6. IV pole and pump

CONTENT:	**PROCEDURE STEPS**	**KEY POINTS**
	1. Check physicians order sheet.	Plain IV solutions need to be reordered q 96 hours, those with additives q 24hours. New bag/solutions must be hung q 24hours .
	2. Identify the patient.	Use two patient identifiers.
	3. Explain procedure to the patient and the purpose of the I.V. therapy.	
	4. Examine I.V. solution for any particles, leakage, and expiration date after removed from wrapper.	
	5. Wash hands before starting.	
	6. Remove rubber stopper from bag and wrapper from tubing.	
	7. Check administration set for any defects.	
	8. Carefully attach tubing to bag. Squeeze drip chamber to fill 2/3 full. Run solution through tubing to clear of air and replace adapter cover.	
	9. Clamp tubing and hang on an I.V. stand.	
	10. Select appropriate site, optimally starting from the distal to proximal arm.	
	11. If hair removal is necessary, clip with scissor. Surgical clippers with disposable clipper heads are acceptable.	Shaving can cause micro-abrasions that harbor bacteria. Change clipper heads after patient use.
	12. Apply tourniquet 4-6" above site selected.	Permits venous dilation and visibility.
	13. Don gloves.	
	14. Scrub site with supplied chlorhexidine prep. Use repeated back and forth strokes for approximately 30 seconds. Allow the area to air dry for approximately 30 seconds.	
	15. Remove needle cover in a straight outward motion. Rotate catheter 360°. Hold IV catheter, bevel side up, at a 15-30 degree angle to surface of the skin.	Size of IV catheter depends on: a. Age of patient b. Type of solution c. Condition of veins All O.R. patients, trauma patients and patients who receive blood, #18 or #20 is recommended.

16. Pierce skin at site of vessel.

17. Carefully insert IV catheter into vein. Observe blood return. Depress button to retract the needle into the clear safety shield.
    Observe for backward flow of blood.

18. Advance catheter into vein until hub rests at venipuncture site.

19. Release the tourniquet.

20. Attach I.V. fluid and allow the fluid to flow or attach extension tubing.

21. Secure IV catheter with sterile transparent dressing using a technique that maintains sterility and permits visualization of the venipuncture site as well as securely anchors the hub of IV catheter.
    Venipuncture site should remain sterile. Prevents accidental removal of catheter from vein and excessive motion of catheter.

    a. Place a narrow piece (2 inch) of tape under catheter and cross tape over.

    b. Place second piece of narrow tape directly across catheter hub.

    or

    a. Place narrow piece of tape under catheter hub with sticky side up. Fold it back over itself making it parallel to catheter.
    Tape should not cover venipuncture site.

    b. Place second piece of narrow tape directly across catheter hub.

    c. Apply sterile transparent dressing.

    or

    a. Apply sterile transparent dressing over lower half of hub.

    b. Place a narrow piece (2 inch) of tape under upper portion of hub and cross over.

    c. Place second piece of narrow tape directly across catheter hub.

22. Remove gloves.

23. If IV site at a point of flexion, fasten arm to arm board, or freedom split to position properly, taking care of avoiding pressure in the ulnar and radial nerves.
    Place a four by four folded long ways under the tape securing the arm to the board. Do not immobilize a joint unless necessary.

25. Set IV rate on pump.
    Check rate ordered by physician.

26. Label the following:
    a. All IV tubings with the sticker that indicates day tubing should be changed. (Example: IV started on Monday 2 p.m. Apply blue label that states "Change Friday.") Fill in label with date, time and initials.

    b. Label sterile transparent dressing with date, time, gauge and name.

    c. Label solution container/bag with date, rate and initials of person hanging the solution.
    May use preprinted IV bag label and fill in the information. IV bag label available from Materials

Management.

27. Discard needle from IV catheter in the sharps container.

28. Document on nurse's note the date, time, type of solution with additives, rate of flow, IV catheter size and site, initials first, last name.

DISCONTINUATION OF PERIPHERAL INTRAVENOUS ACCESS

1. Observe IV site for signs and symptoms of infection, infiltration or phlebitis.

2. Turn off IV pump or close clamp on tubing.

3. Wash hands.

4. Apply disposable gloves.

5. Remove dressing. Stabilize IV device, then remove any tape securing the cannula.

6. Hold cannula and clean site with antimicrobial swab.

7. Place sterile two by two over area and remove cannula by pulling straight away form insertion site.

   Do not raise or lift catheter before it is completely out of the vein to avoid trauma or hematoma formation.

8. Apply pressure over area for 2-3 minutes or until bleeding is controlled.

9. Apply a Band-Aid or place clean, folded gauze over site and secure with tape.

   Maintain pressure to prevent bleeding and reduces bacterial entry into puncture site.

10. Inspect the cannula for intactness after removal.

11. Empty IV bags in sink. Dispose of IV bag and tubing in red biohazard bag after patient information is concealed

12. Document IV intake.

GUIDELINE:

CANNULA SIZE	
14, 16, 18g	Trauma, surgery, blood transfusions
20g	Continuous or intermittent infusions.
22g	Intermittent infusions
24g	Children, elderly or fragile veins for intermittent or continuous infusions

REFERENCES:

1. Diane L. Josephsen. Intravenous Infusion Therapy for Nurses. (Delmar) 2004
2. *Journal of Infusion Nursing, Standards of Practice.* Jan/Feb 2011, Volume 34, Number 1S (Lippincott, Williams and Wilkins) 2011.
3. Perry A. and Potter P. Clinical Nursing Skills and Techniques, 7th Edition. (Elsevier Mosby) 2010