



Standard Operating Procedures Clinical and *T*ranslational *R*esearch *C*enter

Title:	Intravenous Therapy- Initiation and Management of Peripheral Lines		
Approved By:	<i>Christina Wang MD</i>	Effective Date:	March 19, 2012
Number of Pages:	Page 1 of 5	Revised Date:	

Purpose:

To provide standards for the initiation and management of peripheral intravenous therapy, with consideration of participant safety, and comfort, and to meet study goals.

Policy:

- A.** All clinical research nurses must be certified in the performance of I.V. therapy procedures before performing these procedures without supervision.
- B.** I.V. certified clinical research nurses may initiate and discontinue intravenous therapy upon a physician’s order and per protocol. These nurses may restart a peripheral line without a physician’s order for site changes due to infiltration, phlebitis, or the inability to get protocol required blood draws from the site.
- C.** I.V. certified clinical research nurse may initiate a venipuncture utilizing the upper extremities.
- D.** The needle/catheter gauge is determined by the nurse, based upon protocol requirements, condition of veins, and number and amount of blood draws, using the largest gauge feasible.

- E.** A physician's order is necessary for the initiation of the peripheral line. A physician's order is necessary for the initiation of I.V. study infusions. Study drug infusions will be initiated per protocol and physician order.
- F.** An IV will not be attempted if the nurse cannot locate an appropriate site, and/or if the participant expresses the desire to exit from the study.
- G.** If a CTRC nurse is unable to start an IV after a thorough participant assessment and/or two attempts at venipuncture, another CTRC nurse should be requested to assess and attempt
- H.** A CTRC nurse will attempt up to two venipunctures. If unsuccessful, another CTRC nurse or the nurse manager may attempt to start the IV with the verbal permission of the participant. If unsuccessful or lacking the permission of the participant, the Principal Investigator will be notified of the difficulty in initiating a peripheral catheter and the study procedure will be aborted.
- I.** For in-patient participants, peripheral catheters may remain in place for up to 96 hours if there is no evidence of phlebitis, infection or infiltration.
- J.** IV tubing sets for in-patient participants will be changed every 96 hours.
- k.** Lidocaine 1% (without epinephrine), EMLA cream, Lidocaine patch or Spray and Stretch may be used as a local anesthetic prior to catheter insertion if not prohibited by the protocol.
- l.** A new catheter will be used for each attempt at initiating venipuncture.
- M.** Once inserted the catheter may be ordered for KVO to normal saline or IV saline-lock depending on study protocol.
- N.** For protocols where study drugs are not given via I.V. infusions, Heplocks or I.V. saline-locks will be placed as a prophylaxis. A physician's order will be necessary for the initiation of venous access.

- O.** When study drug infusions are completed, the infusion bag and tubing will be removed and the I.V. will be saline-locked while the participant is in the protocol observation period.
- P.** The IV bag which contained the study medication will be photocopied and the copy placed in the participant's chart.
- Q.** The intravenous catheter will be removed before the participant leaves the CTRC, unless the participant is to remain in house, per protocol.
- R.** participants with venous access must remain in the CTRC while the catheter is in place unless accompanied by a staff member.

PROCEDURE:

A. Insertion of IV for saline locks or IV drip

1. Check for signed, dated approved consent form, signed physician's orders, and completed inclusion/exclusion criteria form.
2. Ascertain the participant's ID, name, date of birth. Assess the participant's understanding of the study and the procedure to be done at this visit.
3. Explain procedure to participant.
4. Wash hands thoroughly or use hand sanitizer.

B. Prepare study procedure equipment:

1. Inspect the integrity of equipment.
2. Correct IV solution (study medication) as ordered by the Principal Investigator and per protocol.
3. Angiocath, largest bore suitable for participant's veins
4. IV administration set with Luer connectors
5. Extension tubing set
6. Stopcock set up for pre and post infusion blood draws

7. Tegaderm
8. Alcohol swabs
9. 2x2 sterile gauze pads
10. Tourniquet
11. Squeeze ball

C. Initiation of IV Therapy:

1. If you are not drawing a blood sample immediately after insertion of the IV catheter, prime the extension tubing with a normal saline filled syringe. If you are using an IV drip for this procedure hook IV tubing set to normal saline bag and prime tubing. Insert and prime stopcocks if necessary for procedure.
2. Select site considering the purpose and duration of the procedure. In general look for the largest vein available, usually antecubital.
3. Assess the condition of the participant's veins by palpation
4. Apply tourniquet above intended IV site. Tie tourniquet in a manner to allow release with one hand.
5. Apply tightly enough to impede venous flow, without occluding arterial flow.
6. Application of heat in the form of heat packs may be used as indicated for promotion of venous dilatation.
7. Prepare insertion site by cleansing with alcohol prep using aseptic technique starting from center of proposed site and in a circular motion away from site for 30 seconds.
8. Do not touch the prepped area with your fingers. If palpable reassessment of the vein needs to be done, re-prepare the skin prior to venipuncture.
9. Don clean gloves.
10. Insert angiocath at the prepared site, apply pressure to vein just proximal to insertion site and remove needle.

11. Release tourniquet, while applying pressure to vein just above insertion site to prevent bleeding.
12. Attach extension tubing and IV tubing, if using, and open roller clamp.
13. Secure angiocath to skin using Tegaderm.
14. If using stopcocks and IV set up, secure stopcocks to skin of forearm supporting them with folded sterile 2x2 gauze dressings and paper tape.
15. Ensure that IV drip rate is appropriate.

References:

Appendices: