

CHEMOTHERAPY ADMINISTRATION VIA BOLUS INFUSION

Section: Nursing

Compliance: ACHC Infusion Pharmacy

ACHC Standards:

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Revised:

Approved by, Title and Date Approved: Kathleen Patrick, President 1/1/21, 5/1/21

I. POLICY

Peripheral venous access may be used for bolus infusions of non-vesicant/nonirritant cytotoxic agents. Central venous access shall be the preferred route of administration for the administration of vesicant agents. Irritants and vesicants may be administered via peripheral access only in exceptional circumstances, approved by the nurse manager, by a nurse who has demonstrated competency in chemotherapy administration and has experience in administering chemotherapy via bolus infusion.

II. PROCEDURES

- A. The nurse shall be present for the entire infusion when cytotoxic agents are infused via a peripheral vein.
- B. The vesicant WILL NOT be administered via the established peripheral line if backflow cannot be obtained.
- C. If using a peripheral IV line, a new catheter should be placed prior to administering chemotherapy. Areas of flexion and small tortuous veins should be avoided. Steel butterfly needles should not be used if administering a vesicant drug.
- D. Bolus infusions of vesicants shall be administered via a side port (Y site) of a running IV or the side arm of a T connector when using a peripheral vein. A three-way stopcock may also be used. Bolus infusions of non-vesicants may be directly administered without a running IV line.
- E. Prior to administration of any cytotoxic agent, a positive blood return should be obtained, and a normal saline flush shall be administered via the peripheral or central venous access device to ensure patency of venous access and clear the catheter of any previous drug.
- F. Supplies:
 - 1. Prefilled container/syringe of cytotoxic drug
 - 2. 250 ml IV bag of normal saline (required for vesicant administration).

3. Administration set with side port (if running IV to be used). Preferable to use side-port which allows a needless connection.
4. Sterile needles if necessary.
5. Alcohol and povidone iodine swabs
6. Angio-catheter or port needle if PAC
7. Luer lock injection cap
8. IV start kit or central line dressing kit/PAC needle
9. Protective clothing (chemo gloves, gown, masks, eyewear, barrier)
10. Sharps container
11. Cytotoxic spill kit
12. Catheter clamp for central venous catheter
13. Prefilled heparin and normal saline syringe/needles

G. Bolus Infusion Procedure:

1. Clean workspace, gather supplies, wash hands
2. Prepare equipment:
 - a. Prime IV administration tubing with normal saline, if vesicant being administered.
 - b. Do not prepare cytotoxic agent until venous access has been established.
3. Establish peripheral/central venous access according to standard procedure.
 - a. Assure adequate blood return, check patency of central venous catheter.
 - b. Prep top of injection cap with alcohol swab using friction for 30 seconds.
 - c. Flush with normal saline.
 - d. Check for blood return. (Blood return may not be possible from a central venous line). If backflow cannot be obtained from a central line, determine previous history of this line. Have blood draws been possible? Has it been possible to infuse in the past despite difficulty with aspiration? If a history of difficulty with obtaining backflow from this line exists, while able to infuse, contact the physician with this information. With physician's approval, infuse at least 10 ml normal saline. If no pain or swelling present, proceed as per physician orders. Maintain orders to address this situation in patient's chart.
4. If a vesicant is being administered, attach normal saline primed tubing to injection cap of venous access device and infuse the normal saline at a KVO rate unless otherwise ordered.
5. Don protective clothing, gown, and chemo gloves (mask and eyewear optional)
6. Prepare syringe or mini bag of cytotoxic agent on absorbent barrier. Slowly holding the distal tip over a sterile gauze pad which is enclosed in a sealable 4 ml polypropylene bag.
7. Prep injection top of IV tubing side port or top of injection cap with alcohol swab for 30 seconds.
8. Place absorbent barrier under IV side port to catch any droplets of drug.

9. Slowly administer the drug while observing the IV site closely for continued patency. If a vesicant is being administered, the drug shall be administered via the IV tubing side arm. A non-vesicant may be administered directly via the peripheral or central IV line.
10. When infusion is completed, discard drug container and needle into sharps container.
11. Cleanse injection cap with alcohol for 30 seconds. Flush IV with a least 5 ml of normal saline.
12. If giving more than one agent, repeat steps 6 – 11 and flush IV catheter with appropriate flush solution between drugs.
13. Remove peripheral IV per standard procedure. Place used catheter or needle in sharps container or heparin lock central catheter per standard procedure.
14. Wash hands; remove protective clothing.

H. Documentation and Assessment should include:

1. Site of venipuncture, condition of vein and size and gauge of needle used
2. Method used to assure patency of venous access device
3. Patient assessment before and after infusion.
4. Agent(s) administered
5. Dose used for heparin locking, if applicable
6. Proper disposal of contaminated equipment
7. Patient education.