

CHEMOTHERAPY ADMINISTRATION VIA PERIPHERAL CATHETER

Section: Nursing

Compliance: ACHC Infusion Pharmacy

ACHC Standards:

Policy ID: NUR204

Effective: 1/1/21

Reviewed: 5/1/21

Revised:

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

I. POLICY

Only registered nurses who have completed the chemotherapy educational program and who have experience in chemotherapy administration via peripheral line will be permitted to perform this procedure. Patency of the peripheral access device must be established before administering chemotherapy. A midline catheter is considered a peripheral line and would be included in the procedures sited below.

II. PROCEDURES

A. Supplies:

1. IV start kit
2. Angio-catheter
3. Butterfly needle (should not be used for vesicant administration)
4. 250 ml or 500 ml normal saline (required for vesicant) or D5W bag
5. Administration tubing or extension set
6. IV pole
7. Absorbent pad
8. Pre-mixed drug in syringes
9. Normal saline flushes
10. Chemo gloves/gowns/mask/eyewear/barrier
11. Chemo spill kit
12. Extravasation kit (if administering a vesicant drug)
13. Chemo bag or container
14. Sharps container
15. Alcohol and povidone iodine swabs
16. Injection cap

B. Assemble supplies and check physician orders and review all lab data specific to agent being infused.

C. Take vital signs and perform thorough assessment of the patient.

- D. Educate patient and family about the chemotherapeutic agent, frequency of administration, potential adverse effects.
- E. Recalculate drug dose to reconfirm physician's calculation.
- F. Examine patient's veins for venipuncture and select vein appropriate for chemotherapy. Avoid areas of flexion or small tortuous veins.
- G. Wash hands and apply gloves.
- H. Start IV utilizing an angio-catheter or if necessary, a butterfly needle specific for short bolus therapy.
- I. Flush IV line with 3-5 ml of saline checking for patency and brisk blood return. When blood backflow has been confirmed, connect to tubing and bag.
- J. Maintain IV at KVO.
- K. Observe site for 5 minutes to assure that venous access is perfect for the administration. Recheck blood backflow, observe for signs of infiltration. The patient should not complain of discomfort at the IV site.
- L. Give pre-medications, if ordered, according to physician's orders.
- M. Change gloves, if necessary.
- N. Place absorbent pad under patient's arm to encompass the area of the venipuncture.
- O. Check for blood return.
- P. Don protective clothing (chemo gloves and gown (mask and eyewear optional)
- Q. Prepare container/administration tubing of cytotoxic agent and infusion control device. Slowly prime infusion tubing holding the distal tip over a sterile gauze pad which is enclosed in a sealable 4 ml polypropylene bag.
- R. Clamp catheter
- S. Cleanse side port of IV tubing with alcohol allow to dry, and insert needle attached to tubing and container of agent. It is preferable to use a needless system when performing this procedure. If ordered, the chemotherapy may be given directly via the catheter injection port of the IV.
- T. Slowly administer the drug while observing the IV site for redness or swelling, or if the patient complains of pain at the insertion site. Check for blood backflow after 20% of the drug volume has been infused. After every 3-5 mls. of agent infused, recheck blood return.
- U. Stop infusion of drug if there is any sign of swelling, redness or patient complains of pain. Do not remove catheter from patient's arm. Assess for infiltration. If infiltration of a vesicant is suspected, follow procedure for extravasation. If the drug is an irritant, follow Step Z.

- V. Repeat steps Q and R if there is more than one drug ordered. Flush peripheral IV line with normal saline flush or by infusing IV solution. Always check patency of the IV line before initiating any chemotherapy medications.
- W. When the administration is completed, remove the syringe or administration set and flush line for 5 minutes with NS/D5W.
- X. Observe patient for signs of any adverse reactions or immediate chemotherapy toxicity.
- Y. Remove gloves used to administer chemotherapy, dispose of in hazardous waste container. Thoroughly wash hands and re-glove.
- Z. Close roller clamp and remove IV.
- AA. Dispose of all waste and equipment in appropriate hazardous waste container. Rewash hands.

BB. If an irritant has infiltrated:

1. Stop infusion of drug and solution.
2. Leave IV catheter in place.
3. Aspirate residual fluid/blood via the IV tubing.
4. Remove IV catheter if peripheral line.
5. Apply cold/cool compresses to area for
6. 24 hours.
7. Keep extremity elevated.
8. Use topical steroid if available.
9. Apply sterile dressing.
10. Document and notify physician.

CC. Pediatric Considerations:

1. Follow steps A thru Z.
2. Have a specific order for total volume to be infused.
3. Remember to watch for fluid overload.
4. Have a caregiver/parent present to minimize the child's mobility during the infusion.
5. Do not use the feet or dominant hand of an infant or toddler as an IV site.
6. Immobilize IV site using arm boards as needed. Make sure IV site is easily visualized.
7. Employ distraction techniques to keep child occupied, i.e. television, video games, music, reading to child to promote less movement and to decrease fear and anxiety about procedure

DD. Documentation and Assessment Should Include:

1. Complete assessment of patient including vital signs.
2. Length and time of infusion
3. Type of catheter used insertion location and status of IV site during infusion.
4. Drugs given, in what sequence, interventions
5. Patients' tolerance and condition of patient after procedure completed
6. Each method of checking blood flow
7. Patient education.

