CHEMOTHERAPY AGENTS: MANAGEMENT OF EXTRAVASATION

PURPOSE
To provide guidelines for intervention of extravasation of Chemotherapeutic Agents.

RATIONALE
Extravasation is the leakage of a vesicant or irritant drug into subcutaneous tissue during parental administration. This can result in ulceration and severe necrosis if not dealt with promptly.

POLICY
1. Management of extravasation:
   A. Extravasation involving a peripheral line
      At the first sign of infiltration:
      1) Stop administration of vesicant and IV fluids.
      2) Disconnect the IV from the catheter. Do not remove the IV catheter.
      3) Attempt to aspirate the residual drug from the catheter, by using a small (1-3cc) syringe.
      4) Notify the physician.
      5) Administer the appropriate antidote, if ordered, use needle to inject the antidote into the subcutaneous tissue. Avoid Z-tracking. Apply cold to the site, as appropriate.
      6) Instruct the patient to rest and elevate the site for 48 hr. and then to resume normal activity.
      7) Evaluate the extent of extravasation and tissue damage.

   B. Extravasation involving a central line: Extravasation in the upper torso or neck area may result in serious defects and require extensive reconstructive surgery. It is imperative that the nurse administer vesicant therapy into a central line of any type very carefully.
      1) Immediately discontinue chemotherapy and IV fluids, if the patient reports changes in sensation, pain, burning or swelling at the CVC site, if a change occurs, or if no blood returns.
      2) If the patient has an implanted port, assess the site for proper needle placement.
3) If possible, aspirate the residual drug from the area of suspected infiltrate at the port pocket or at the exit site of the tunneled or percutaneous catheter.
   a. If extravasation is a result of needle dislodgment in a port, leave the needle in place and attempt to aspirate the residual drug.
   b. If aspiration is unsuccessful, remove the needle from the port and attempt to aspirate the drug subcutaneously, from the pocket and surrounding tissue.
4) Administer the appropriate antidote, if ordered
   a. If the antidote is administered through the IV, instill the appropriate amount, avoiding excess pressure on the site, and apply local cold or heat.
   b. If the patient has an implanted port, remove the port needle after instilling the antidote. Inject the antidote into subcutaneous tissue as appropriate and apply local cold or heat.
5) Collaborate with the physician regarding:
   a. The need for a radiographic flow study to determine the cause of extravasation.
   b. Future plans for IV access and patient management.

2. Documentation of an extravasation episode: Follow documentation guidelines by Nursing Policy or Institution guidelines.

3. Follow-up guidelines:
   A. Monitor the site at 24 hr., one week, two weeks, and as necessary for pain, redness, swelling, ulceration, or necrosis, depending on the degree of tissue damage. Follow up with a plastic surgeon, if ordered.
   B. Monitoring will be ordered by the physician if a large volume was extravasated, if the patient experiences severe pain after the initial injury, or if minimal healing is evident one to three weeks after the initial injury.

Reference
Oncology Nursing Society 2001; Chemotherapy and Biotherapy Guidelines and Recommendations for Practice