Medications – Nursing Management of Extravasation
SECTION: 16.23
Strength of Evidence Level: 3

PURPOSE:
To minimize tissue damage should a peripheral IV infusing a vesicant drug infiltrate surrounding tissue.

CONSIDERATIONS:
1. Prevention is the most important approach to extravasation management.
2. Extravasation is defined as inadvertent escape of a vesicant drug into the tissues. Vesicant drug is an agent that has the potential to cause cellular damage or tissue necrosis if leakage into the tissue occurs.
3. Extravasation of a vesicant can cause local tissue damage (blistering) and erode deep tissues including muscles and tendons that may result in irreversible neurovascular damage.
4. Vesicant extravasation can occur while the drug is being given and around the needle site. Immediate symptoms of extravasation include severe pain, and burning lasting minutes to hours. Severe swelling is usually immediate and there is no blood return. Delayed symptoms include pain and or swelling usually within 48 hours. Redness can occur later. Ulceration can occur later. Other local tingling and sensory deficits may occur.
5. Physician's orders for management of an extravasation should be obtained prior to IV administration of a vesicant.
6. Nurses performing this procedure must have specialized education and training in the administration of IV chemotherapeutic agents.
7. Vesicants should only be administered after a blood return is obtained, saline flows freely and there should be no evidence of swelling. Vesicants should not be administered via a peripheral line.
8. Assess vein patency every 2 to 3 minutes when administering IV push drugs and every 5 minutes for a piggyback infusion.
9. When in doubt concerning placement or patency of a peripheral IV for infusing a vesicant drug, discontinue the IV and start another. Never use a chemotherapeutic drug to test vein patency.
10. A local hypersensitivity response to some drugs is characterized as itching around the point of drug entry, a tiny papule or an urticarial rash may appear around injection site, and/or inflammation extending the length of the vein.
11. A low-pressure infusion device should be used when administering a vesicant medication.
12. Implanted ports reduce, but do not eliminate the risk of vesicant extravasation.
13. Use at least 2 patient identifiers prior to administering medications.

EQUIPMENT:
- 10 mL syringe
- 25-gauge needle
- Sterile water for injection
- Sterile normal saline for injection
- Ice pack (optional)
- Medication as ordered for treatment of extravasation
- Plastic face shield or splash goggles
- Disposable gown (lint-free, low-permeability fabric with a closed front, long sleeves and elastic or knit closed cuffs)
- Disposable, latex, unpowdered gloves
- Puncture-proof container
- Impervious trash bag, labeled cytotoxic or hazardous waste
- Alcohol wipes
- Antimicrobial wipes
- Commercially prepared spill kit
- Disposable, absorbent pads

PROCEDURE:
1. Adhere to Standard Precautions.
2. Stop the infusion of the chemotherapeutic agent immediately.
3. Leave the needle in place.
4. Attempt to aspirate infiltrated drug and blood from the needle and IV tubing.
5. Inject intravenous or subcutaneous antidote when appropriate.
6. Avoid applying pressure to the site.
7. Remove the needle.
8. Mark the border of the affected area or photograph the extremity.
9. Apply cold compresses to site or follow specific physician orders to treat the extravasated site.
10. Observe the site regularly.

AFTER CARE:
1. Report extravasation and management to physician and supervisor.
2. Dispose of chemotherapeutic vial, solution and supplies according to agency policy for hazardous waste.
3. Instruct patient/caregiver regarding care of the affected area and responsibilities for follow-up observation.
4. Document in patient's record:
   a. Time and date of extravasation.
   b. Medication(s) administered.
   c. Type and size of needle used.
   d. Sequence of antineoplastic agents.
   e. Subjective symptoms reported by patient.
   f. Estimation of amount of total drug administered before stopping infusion.
g. Site appearance and location. Photograph extravasation site if possible.

h. Physician notification and intervention.

i. Treatment initiated including patient instruction and follow-up.

5. Alternate access sites should be considered following extravasation of vesicant medications.