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Specialty Pharmacy & Infusion Solutions

ASSESSMENT AND MANAGEMENT OF INFILTRATION AND PHLEBITIS

Section: Nursing
Compliance: ACHC Infusion Pharmacy
ACHC Standards:
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I. POLICY

To ensure safe management of the IV catheter in the home, the nurse must have a thorough knowledge of signs and symptoms of phlebitis and infiltration. Prompt interventions by the clinician when phlebitis or infiltration is detected will minimize adverse effects.

II. PROCEDURES

A. Assessment Measures

1. The peripheral IV cannula is to be removed for any signs of infiltration, phlebitis, infection or drainage from the insertion site.

2. **<u>Infiltration</u>** is defined as inadvertent administration of solution/medication into surrounding tissue

Infiltration Scale	
Grade	**Criteria**
0	No Symptoms
1	Skin blanched, edema < 1 inch, cool to touch, with or without pain
2	Skin blanched, edema 1 to 6 inches, cool to touch, with or without pain
3	Skin blanched, translucent, gross edema > 6 inches, cool to touch, mild-moderate pain, possible numbness
4	Skin blanched, translucent; skin tights, leaking, skin discolored, bruised, swollen; gross edema > 6 inches, deep pitting tissue edema, circulatory impairment; moderate-severe pain, infiltration of any amount of blood product, irritant or vesicant.

3. **Phlebitis** is defined as the inflammation of a vein used for IV infusion. There are four types of phlebitis:
    a. Chemical - involving drugs or solutions.
    b. Mechanical - involving the catheter body, i.e., insertion.
    c. Bacterial - involving bacteria.
    d. Post-infusion phlebitis. Phlebitis is noted 24 to 72 hours after the catheter is removed.

4. Signs and symptoms associated with phlebitis are:
    a. Redness, streak formation.
    b. Site warm to touch.
    c. Local swelling.
    d. Palpable cord along vein.
    e. Sluggish infusion rate.
    f. Increase in basal temperature.
    g. Pain

Classification of phlebitis	
Severity	**Assessment of Findings**
0	0 (zero) - no clinical symptoms
1+	Erythema with or without pain, edema may or may not be present, no streak formation, no palpable cord
2+	Erythema with or without pain, edema may or may not be present, streak formation, no palpable cord
3+	Erythema with or without pain, edema may or may not be present, streak formation, palpable cord
4+	All of the above plus purulent drainage from site

B. Preventive measures

1. Use the following precautions with IV insertion:
    a. Refrain from using veins in the lower extremities. Consult with physician if this is the only avenue available.
    b. Select veins with ample blood volume when infusing irritating substances.
    c. Avoid veins in areas over joint flexion.
    d. Anchor cannulas securely to prevent motion.

2. To prevent injury to the wall of the vein, the cannula should be removed at an angle nearly flush with the skin.

3. When dealing with a vesicant medication, orders for specific treatment if an extravasation should occur should be obtained at the time of referral before initiation of therapy.

C. Management Measures

The following procedural steps are designated according to the size of an infiltrated area or the stage of phlebitis involved.

1. For an IV infiltration that measures less than 5cm or stage 1+ or 2+ phlebitis:
    a. Stop the infusion.
    b. Remove the IV cannula.
    c. Apply warm, moist compresses to site.
    d. Elevate the extremity.
    e. Restart IV in opposite extremity, if possible, and resume therapy.

2. For an IV infiltration that measures greater than 5cm or phlebitis that is stage 3+ or 4+.
    a. Stop the infusion.
    b. Remove the IV cannula.
    c. Apply warm, moist compresses to site.
    d. Elevate the extremity.
    e. Notify physician of complication and obtain treatment orders.

    f. Restart IV in opposite extremity, if possible, and resume therapy.

3. For signs of phlebitis, infiltration or drainage from the insertion site or exit site of a central venous catheter.
    a. Stop the infusion.
    b. Apply warm, moist compresses to site.
    c. Notify physician **IMMEDIATELY** for further treatment and therapy orders.

4. Discard soiled supplies in appropriate containers.

D. Follow up measures and Patient Instruction

1. Instruct patient/caregiver to continue intermittent warm, moist compresses to site and keep extremity elevated for 24 hours.

2. Document in patient's record:
    a. Presence and severity of infiltrate or phlebitis.
    b. Type of infusate
    c. Treatment provided.
    d. Patient's response to treatment
    e. Instructions given to patient/caregiver.
    f. Communication with physician.

3. Complete appropriate form to report incident to agency personnel, if indicated.