

CONSIDERATIONS:

1. An allergic reaction can occur after exposure to a drug by any route. Especially when first doses of parenteral medications are administered, there is increased opportunity for severe allergic reactions such as anaphylaxis, to occur in the home setting. The nurse must be knowledgeable in risks, clinical recognition, and immediate intervention in the situation of a severe allergic reaction. Anaphylaxis is a severe systemic allergic reaction. It is a rare but dramatic reaction that can occur within seconds to minutes after exposure to an allergen. Prompt recognition and immediate intervention are essential.
2. Drugs to treat anaphylaxis and physician orders for use are made available in the home when the decision is made to administer a first dose of an approved medication (refer to HHF Policy # 2047 - "Medication Verification and Management") (*defined as the patient's first known exposure to a medication*) in the home. Nurses who are administering the first dose of a medication will have available a physician ordered/patient specific anaphylaxis kit and will remain with the patient 30 minutes post administration.
3. Nurses who are administering flu vaccines to patients will carry an anaphylaxis kit. The nurse will follow the criteria below when preparing to administer the flu vaccine.
4. The following criteria are considered in decision-making regarding first dose home administration:
 - a. *The nurse should consult appropriate drug reference books and/or a pharmacist to become familiar with the medication*
 - b. The patient should be evaluated for any history of drug allergies or adverse reactions to the prescribed medication, a medication in the same drug classification, a medication with a known cross-allergen with any medication in that classification (e.g. penicillin and cephalosporin); if these criteria are present, the first dose should not be administered in the home
 - c. Availability of resources should be considered:
 - i. Emergency transport services are available/accessible
 - ii. Telephone availability present to reach 911
 - iii. Specific physician order for the first dose and willingness of the physician to prescribe medications to treat a potential anaphylactic drug reaction
 - iv. If the above criteria are not met, outpatient administration of the medication should be recommended and arranged
5. Anaphylactic reactions generally occur within minutes of exposure but some reactions occur later than 30 minutes after exposure. The nurse should

remain in the home throughout the entire administration and observe the patient for at least 30 minutes after completion of the parenteral drug administration.

6. Epinephrine is administered cautiously to the elderly, pregnant, those with cardiovascular disease, hypertension, diabetes, hyperthyroidism and psychoneurosis. Epinephrine is contraindicated in narrow angle glaucoma, organic brain syndrome and cardiac insufficiency.
7. Patient education should address advising patients with drug sensitivities to wear alert tags, include signs and symptoms of allergic reaction and use of anaphylaxis kit if needed.

EQUIPMENT:

Anaphylaxis Kits as dispensed from pharmacy or from Home Health Foundation for flu vaccine administration. (Vial of epinephrine, 1 - 1 ½" safety needles for IM administration, 1 mL syringe)

Recommended dosage:

ADULT:

0.5 ml of 1:1000 epinephrine via the intramuscular route; repeat after 5 minutes if symptoms persist

CHILD:

0.01 ml/kg of body weight of 1:1000 epinephrine (up to 0.3 mL of epinephrine (1:1000) via the intramuscular route for a child; repeat after 5 minutes if symptoms persist

PROCEDURE:

1. Adhere to Standard Precautions.
2. Identify patient using at least two patient identifiers.
3. Inform the patient/caregiver of the potential risk of a medication reaction including signs and symptoms to report.
4. Explain procedure to patient/caregiver.
5. Administer the medication following appropriate procedures.
6. Observe patient for signs and symptoms of allergic/anaphylactic reaction:
 - a. Appearance of hives on face and upper chest
 - b. Diffuse erythema and the feeling of warmth with or without itching
 - c. Swelling of eyes, face, lips, tongue, throat, hands or feet
 - d. Respiratory difficulty and wheezing
 - e. Severe abdominal cramping with associated gastrointestinal or genital-ureteral symptoms
 - f. Vascular collapse with circulatory failure
7. Discontinue medication administration and call 911 in the event of signs/symptoms of anaphylaxis.
8. Provide basic life support as needed, and administer Anaphylaxis medication as ordered.

9. If an adverse reaction occurs :
 - a. Stop the medication administration (infusion therapy)
 - b. Take vital signs, and O2 sat using pulse oximeter.
 - c. Observe for the following reactions: irritability, dyspnea, cyanosis, skin eruptions, pulse variations, redness and itching of skin, rhinitis.
 - d. Notify physician immediately for instruction.

AFTER CARE:

1. Document in patient record:
 - a. Medication administered, dose, time, rate and route
 - b. Patient's response to treatment
 - c. Identity and location of emergency facility, if indicated
 - d. Condition of patient at time of transportation, if indicated
 - e. Instructions given to patient/caregiver
 - f. Communication with physician
 - g. Complete occurrence report per organizational policy

REFERENCE:

- American Heart Association (2005). American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Part 10.6: Anaphylaxis. Available at: http://circ.ahajournals.org/content/112/24_suppl/IV-143.full?sid=6df778d4-2ff9-4782-94e3-42fa040ade76
- Dobson, PM, Boyle, M, Lowenthal, M et al. (2004). Home Intravenous Antibiotic Therapy and Allergic Drug Reactions: Is There a Case for Routine Supply of Anaphylaxis Kits? *Journal of Infusion Nursing* 27 (6), 425-430.
- Infusion Nurses Society. (2011). *Infusion Nursing Standards of Practice*. *Journal of Infusion Nursing*, S1-S101.
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- Lane R, Bolte RG (2007) Pediatric Anaphylaxis. *Pediatric Emergency Care*, 23, 49-56
- HHF Policy # 2047 – “Medication Verification and Management”

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