Procedure: Injections: Subcutaneous and Intramuscular
For the administration of Glucagon, Adrenaline and Epi-Pen

Clinical Indications:
When medication administration is necessary and the medication is to be given via the SQ or IM route using a syringe or an auto injector.

Procedure:
1. Receive and confirm medication order or perform according to standing orders. For glucagon, mix diluent with powder following manufacturers recommendations using sterile technique. Ensure clarity and color of the medication is appropriate.
2. Check expiration date.
3. Withdraw medication from ampules or vials using sterile technique. An equal volume air may need to be injected into the medication vial to equalize pressure before medication is withdrawn. Use a filter needle to withdraw medication from a glass ampule; dispose after draw.
4. Explain the procedure to the patient and reconfirm patient allergies. Confirm the 6 “Rights”
   - Right medication
   - Right route
   - Right time
   - Right person
   - Right dose
   - Right documentation
5. The most common site for subcutaneous injection is the upper arm. Injection volume should not exceed 1 ml.
6. The possible injection sites for intramuscular injections include the deltoid, buttock and thigh. Injection volume should not exceed 2 ml for the deltoid. Injection volume should not exceed 5 ml in the thigh or buttock. (Brady)
7. The thigh should be used for injections in pediatric patients. Injection volume should not exceed 1 ml.
8. Insert the needle into the skin with a smooth, steady motion
   - SQ: 45-degree angle
   - IM: 90-degree angle
   - skin pinched
   - skin flattened
   - Needle size: 24-26 gauge 3/8 -1”
   - 21-23 gauge 5/8-1.5”
9. For Epi-Pen, remove cap and push injector firm against the patients lateral thigh. Hold in place for 10 seconds after it activates.
10. Aspirate for blood, if blood is aspirated, choose new site.
11. Inject the medication slowly.
12. Withdraw the needle quickly and dispose of properly without recapping.
13. Apply pressure to the site.
14. Monitor the patient for the desired therapeutic effects as well as any possible side effects.
15. Document the medication, dose, route, and time in the patient care report (PCR).

Skills Maintenance Suggestions:
Practice complete Epi-Pen, SQ and IM procedure on appropriate simulated sites on a periodic basis.