Delegation of Medication Administration to Unlicensed Assistive Personnel (UAP)	Administering Subcutaneous Injections Module/Skill Checklist

Objectives

At the completion of this module, unlicensed assistive personnel (UAP) should be able to:

1. administer medications by subcutaneous injections.
2. document medication administration in the client's healthcare record.

Subcutaneous injections are administered into the fatty tissue under the skin. Small doses (0.5 to 1 mL) of medication are injected subcutaneous.

NOTE:
1) The RN or LPN is permitted to delegate **ONLY** after application of all components of the NCBON Decision Tree for Delegation to UAP and **after careful consideration that delegation is appropriate:**

a) for **this** client,
b) with **this** acuity level,
c) with **this** individual UAP's knowledge and experience, and
d) **now** (or in the time period being planned).

2) Successful completion of the "Infection Control" module by the UAP should be documented prior to instruction in medication administration by this or ANY route.

Procedures

1. Communicate to UAP any special information needed prior to the administration of the medications.

2. Cleanse hands and observe other appropriate *infection control procedures.

3. Gather appropriate materials.
   - Gloves
   - Appropriate syringe – 1, 2, or 3 mL is recommended; or U-100 insulin syringe for insulin administration
   - Appropriate needle size and length – is selected as directed by the licensed nurse in the plan of care or agency policies and procedures based on the client's body mass, the intended angle of insertion, and the planned site of insertion. The following are generally used for:

  - Adults of normal weight -
    - 5/8 inch length with #25 gauge needle to be inserted at a 45 degree angle, or
    - 3/8 inch length #25 gauge inserted at a 90-degree angle
  - Children – ½ inch needle #25 – #29 gauge inserted at a 45 degree angle
  - Insulin – 5/16 inch length #30 gauge inserted at a 45 degree angle for thin clients; 90 degree angle for heavier clients
- Antiseptic or alcohol swab
- Medication ampule or vial
- Client's medication administration record or medical order
- Adhesive bandage (as indicated)

4. Prepare work area to be clean and well lit.

5. Check for client allergies by:
   - asking the client about their allergies, and
   - Reviewing the Medication Administration Record (MAR), plan of care, and/or client medical record.

6. Verify the **SIX RIGHTS** of medication administration:
   - Right client and right MAR
   - Right medication
   - Right dose
   - Right time
   - Right route
   - Right documentation is performed after the medication administration

7. Verify **RIGHT MEDICATION** by comparing the MAR against the label of the medication:
   - when it is taken from the medication cart/drawer,
   - before withdrawing the medication, and
   - after withdrawing the medication.

8. Check the expiration date of the medication.

9. Prepare the **RIGHT DOSE** of medication for the **RIGHT ROUTE**.

MEDICATION INJECTION PREPARATION

Medication Vial

- Use **sterile technique to assemble the syringe and needle.
- If administering insulin, examine insulin for lumps, discoloration or crystals; and roll bottle to mix as needed.
- Remove the vial cap and cleanse the rubber top with an alcohol swab.
- Remove the needle guard maintaining **sterile technique and pull back on the syringe plunger to fill with the amount of air equal to the amount of medication to be withdrawn. Attach a filter needle as required by agency policy.
- Place the vial on a flat surface. Carefully insert the needle into center of the rubber cap maintaining sterile technique. Inject the air into the vacant area of the vial keeping the needle bevel above the surface of the medication.
- Withdraw the prescribed amount of medication using one of two methods.
    i. Hold the vial down with the base lower than the top. Guide the needle tip so that it is below the fluid level and slowly withdraw the desired amount of medication.
    ii. Invert the vial and guide needle tip so that it is below the fluid level. Slowly withdraw the desired amount of medication.
- Hold the syringe and vial at eye level to determine the correct dosage of medication is withdrawn into the syringe. Withdraw a slight amount more medication (e.g., 0.25 mL) than ordered.
- Gently tap the syringe barrel to dislodge any air bubbles and expel as necessary.
- If a filter needle is used, remove and replace with the needle to be used for the injection while maintaining sterile technique. If changing needles prior to injection, replace with the needle to be used for injection while maintaining sterile technique.
- Expel the air from the new needle and verify the correct medication volume before administration.
- Write the date, time, and initials if opening a multi-dose vial.

Medication Ampule

- Flick or tap the ampule stem to release all medication fluid to the base of the ampule.
- Hold the ampule base and grasp the ampule stem with an alcohol swab or dry gauze. Snap the ampule stem off so that it breaks away from the person preparing the medication.
- Attach a filter needle to the syringe maintaining **sterile technique.
- Place the ampule on a flat surface or invert the ampule.

- Remove the syringe needle guard and insert the filter needle into the center of the ampule while maintaining **sterile technique.
- Gently aspirate to withdraw medication. Tilt the ampule slightly to the side as needed. Withdraw a slight amount more medication (e.g., 0.25 mL) than ordered.
- Remove the filter needle and replace it with the needle to be used for the injection while maintaining sterile technique.
- Dispose of all needles and ampule parts in the appropriate container.
- With the syringe at eye level, push the medication solution to the prescribed amount.

Note: Change the needle on the syringe after withdrawing the medication and before injection as directed by the licensed nurse in the plan of care, and as required by agency policies and procedures.

10. Identify the **RIGHT CLIENT** (client's identity) for medication administration using agency protocol.

11. Explain the procedure to the client.

12. Put on clean gloves.

13. Select the site for injection. The site selected for injection is directed by the licensed nurse in the plan of care or per agency policies and procedures. The site should be free of scars, hair, lesions, bruises, edema, and skin irritation.

    - Sites should be alternated for each injection
    - The most common sites used are the outer surface of the upper arm, anterior thigh, and abdomen.

    NOTE: Avoid the area 1 ½ inches around the umbilicus).

    - Other sites include the upper ventrogluteal area, dorsogluteal area, and scapula areas of the upper back.

14. Administer the medication at the **RIGHT TIME.**

    <u>Medication Administer:</u>

    - Cleanse the area with an alcohol swab using a circular motion moving from inside outward for 2 inch diameter. Allow the area to dry.

- Place and hold the swab in nondominant hand between the third and fourth fingers or on the client's skin above the intended injection site.
- Remove the needle guard or cap maintaining **sterile technique.
- Use the non-dominant hand thumb and forefingers to gently grasp subcutaneous tissue at the site for thin clients, or spread the skin at the site taut for heavier clients.
- Hold the syringe between the thumb and forefinger of the dominant hand.
- Insert the needle quickly at a 45 degree angle for thin clients or a 90 degree angle for heavier clients, and as directed by the licensed nurse in the plan of care or agency policies and procedures.
- Hold the syringe barrel with the dominant hand, and with the same hand, aspirate by pulling back on the plunger.
  - If no blood returns, slowly inject the medication.
  - If blood returns, withdraw the needle, discard, and prepare new injection.
- Wait 5-10 seconds and then withdraw the needle quickly while depressing the skin with the swab.
- Release the tissue and gently massage the injection site with the swab (some medications should not be massaged)
- Activate needle safety device and dispose in an appropriate container.

15. Remove and discard gloves. Cleanse hands.

16. Implement the sixth right of medication administration, **RIGHT DOCUMENTATION.** Documentation of medication administration on the client's MAR and/or client record includes:
    a. Date and time of administration
    b. Medication and dosage
    c. Route of medication administration
    d. Site of administration
    e. Signature of person administering medication

NOTE: If the client refuses the medication, document this in the MAR and/or client chart. The UAP is responsible for reporting this to the person delegating and supervising the medication administration. Medications that are not administered within the agency approved time period for administration should be documented. Dispose of the medication according to agency policy.

17. Maintain security of medications during medication administration and insure the medication cart/cabinet/room is locked when not in direct attendance.

INSULIN INJECTIONS

- Insulin syringes, 50 or 100 U/ml capacity, are used to administer insulin subcutaneously.
- Avoid overuse of injection administration sites by selecting injection site spaced one inch from the previous injection and systematically rotating within a body area before moving to another body part as directed by the licensed nurse in the plan of care or agency policies and procedures.
- Do not aspirate before injecting the insulin.
- Do not massage the area after withdrawal of the needle.

INSULIN PENS

There are two types of insulin pens:

- Disposable – are prefilled insulin pens that are discarded after use.
- Reusable – use replaceable insulin cartridges

NOTE: INSULIN PENS SHOULD NEVER BE SHARED AMONG CLIENTS.

NOTE: BLOOD GLUCOSE LANCETS SHOULD NEVER BE SHARED AMONG CLIENTS. BLOOD GLUCOSE MONITORS MAY BE SHARED ONLY WHEN THOROUGHLY CLEANED BETWEEN CLIENTS PER AGENCY POLICIES AND PROCEDURES.

Procedure

- Remove the pen cap.
- Check the insulin type, amount, and appearance.
- Attach the pen needle and remove the caps.
- Follow the manufacturer's individual directions for priming the pen.
- Dial the correct insulin dose and inject.
- Remove the needle and properly dispose.
- Replace the pen cover.

HEPARIN INJECTIONS

Heparin and low molecular weight heparin (i.e., Enoxapin) have anticoagulant properties that require special precautions with administration.

- Sites for injection – The abdomen, at least 2 inches away from the umbilicus and above the level of the iliac crest, is the site most commonly used. As approved by the agency, the thighs and arms may be used as alternate sites.
- Needle length is 3/8 inch length, #25 - #26 gauge.
- The needle insertion is at a 90 degree angle.
- Do not aspirate – Aspiration may cause bleeding and damage to surrounding tissue.
- Do not massage the site. – Massage may cause bleeding and bruising.
- Alternate sites for subsequent injections as directed by the licensed nurse in the plan of care or agency policies and procedures.

*** Information to support the teaching of hand hygiene and use of gloves is located in the teaching module "Principles o f Infection Control".**

**** Information to support the teaching of standard precautions for medication administration and sterile technique are located in the teaching module "Principles of Infection Control".**

CONSIDERATIONS FOR THE LIFESPAN

Pediatric Clients**:**

- Obtain assistance to immobilize or restrain the client as needed.
- Demonstrate to the child, the injection procedure on a doll or teddy bear using a syringe without a needle.

Geriatric Clients:

- Geriatric clients have less subcutaneous tissue that may require an adjustment of the site location and angle of the needle insertion as directed by the licensed nurse in the plan of care or agency policies and procedures.

SKILL CHECKLIST

Student Name (print) _____ **ID Number** _____

SKILL PERFORMANCE OBJECTIVES	✓ Pass / x Not Yet	COMMENTS
1. Obtain any special information needed prior to the administration of medication.		
2. Cleanse hands; observe infection control procedures.		
3. Gather materials and supplies.		
4. Prepare work area: clean and well lit.		
5. Check for client allergies: ▪ Ask client about allergies ▪ Review MAR for allergies		
6. Verify Six Rights f medication administration: Client, medication, dose, time, route, document		
7. Verify the right medication by comparing MAR against medication label: ▪ When taken from the medication cart/drawer ▪ Before withdrawing the medication ▪ After withdrawing the medication		
8. Check expiration date of medication.		
9. Prepare the right dose of medication for the right route. ▪ Prepare medication from a vial ▪ Prepare medication from an ampule		
10. Identify the right client for medication administration.		
11. Explain the procedure to the client.		
12. Put on clean gloves.		
13. Select the site for injection as directed by the licensed nurse in the plan of care or per agency policies and procedures: ▪ outer surface of upper arm ▪ anterior thigh ▪ abdomen ▪ upper ventrogluteal area		

▪ dorsogluteal area ▪ scapula areas		
14. Administer the medication at the right time subcutaneous.		
15. Remove and discard gloves. Clean hands.		
16. Right document – record the medication administration: ▪ Date and time ▪ Medication and dosage ▪ route ▪ Site ▪ Signature		
17. Maintain security of medications and medication cart/cabinet.		

a. Pass b. Redo

Evaluator Name **Date**