18.8: Checklists for Parenteral Medication Administration

Checklist for Parenteral Site Identification

Use the checklist below to review the steps for completion of “Parenteral Site Identification.”

Directions: Identify parenteral injection sites, needle size/gauge, injection angle, and the appropriate amount that can be administered in each of the parenteral routes: intradermal, subcutaneous, and intramuscular.

1. Describe the appropriate needle gauge, length, number of cc’s, and angle for an intradermal injection:
   - 25-27G
   - 3/8” to 5/8”
   - 0.1 mL (for TB testing)
   - 5 to 15 degree angle
2. Demonstrate locating the intradermal injection sites on a peer:
   - Upper third of the forearm
   - Outer aspects upper arms
   - Between scapula
3. Describe the appropriate needle gauge, length, number of mL, and angle for a subcutaneous injection:
   - 25-31G
   - ½” to 5/8”
   - Up to 1 mL
   - 45 to 90 degree angle
4. Demonstrate locating the subcutaneous injection sites on a peer:
   - Anterior thighs
   - Abdomen

5. Describe the appropriate needle gauge, length, number of mL, and angle for an adult intramuscular:
   - 18-25G
   - ½” – 1 ½” (based on age/size of patient and site used)
   - <0.5 – 1 mL (infants and children), 2-5 mL (adults)
   - 90-degree angle

6. Demonstrate locating the intramuscular injection sites on a peer:
   - Ventrogluteal
   - Vastus laterus
   - Deltoid

7. Explain how you would modify assessment techniques to reflect variations across the life span and body size variations.

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**Checklist for Parenteral Medication Injections**

Use the checklist below to review the steps for completion of “Parenteral Medication Injections.”

**Steps**

*Disclaimer: Always review and follow agency policy regarding this specific skill.*

**Special Considerations:**

- Plan medication administration to avoid disruption.
- Dispense medication in a quiet area.
- Avoid conversation with others.
- Follow agency’s no-interruption zone policy.
- Prepare medications for ONE patient at a time.
- Plan for disposal of sharps in an appropriate sharps disposal container.

1. Check the orders and MAR for accuracy and completeness; clarify any unclear orders.
2. Review pertinent information related to the medications: labs, last time medication was given, and medication information: generic name, brand name, dose, route, time, class, action, purpose, side effects, contraindications, and nursing considerations.
3. Gather available supplies: correctly sized syringes and needles appropriate for medication, patient’s size, and site of injection; diluent (if required); tape or patient label for each syringe; nonsterile gloves; sharps container; and alcohol wipes.
4. Perform hand hygiene.
5. While withdrawing medication from the medication dispensing system, perform the first check of the six rights of
medication administration. Check expiration date and perform any necessary calculations.

6. Select the correct type of syringe and needle size appropriate for the medication, patient size, and site of injection.

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### Preparing the Medication for Administration

1. 
2. 
3. 
4. 
5. 
6. 
7. Scrub the top of the vial of the correct medication. State the correct dose to be drawn.
8. Remove the cap from the needle. Pull back on the plunger to draw air into the syringe equal to the dose.
9. With the vial on a flat surface, insert the needle. Invert the vial and withdraw the correct amount of the medication. Expel any air bubbles. Remove the needle from the vial.
10. Using the scoop method, recap the needle.
11. Perform the second check of the six rights of medication administration, looking at the vial, syringe, and MAR.
12. Label the syringe with the name of the drug and dose.

### Additional Preparation Steps When Mixing Two Types of Insulin in One Syringe

**Intermediate-Acting (NPH) and Short-Acting (Regular) insulins**

- a. Place the vials side by side on a flat surface: NPH on left and regular insulin on the right.
- b. With an alcohol pad, scrub off the vial top of the NPH insulin. Using a new alcohol pad, scrub the vial top of the regular insulin. Discard any prep pads.
- c. Select the correct insulin syringe that will exactly measure the TOTAL dose of the amount of NPH and regular doses (30- and 50-unit syringes measure single units; 100-unit syringes only measure even numbered doses).
- d. Pull back on the plunger to draw air into the syringe equal to the dose of NPH insulin.
- e. With the NPH vial on a flat surface, remove the cap from the syringe, insert the needle into the NPH vial, and inject air. Do not let the tip of the needle touch the insulin solution. Withdraw the needle.
- f. Pull back on the plunger to draw air into the syringe equal to the dose of the regular insulin.
- g. With the regular vial on a flat surface, remove the cap from the syringe, insert the needle into the regular vial, and inject air.
- h. With the needle still in the vial, invert the regular insulin vial and withdraw the correct dose. Remove the needle from the vial. Cap the needle using the scoop method.
- i. Roll the NPH insulin vial between your hands to mix the solution. Uncap the needle and insert the needle into the NPH insulin vial. Withdraw the correct amount of NPH insulin. Withdraw the needle and recap using the scoop method.
- j. Perform the second medication check of the combined dose looking at the vial, syringe, and MAR, verifying all the rights.
- k. Label the syringe with the name of the combined medications and doses.

### Alternative Preparation Using an Insulin Pen

- a. Select the correct insulin pen to be used for the injection. Identify the dose to be given.
b. Remove the cap from the insulin pen and clean the top (hub) with an alcohol prep pad. Attach the insulin pen needle without contaminating the needle or pen hub.

c. Turn the dial to two units and push the injection button to prime the pen.

d. Turn the dial to the correct dose.

e. Perform the second medication check looking at the insulin pen and MAR, verifying all the rights.

**Administration of Parenteral Medication**

1. Knock, enter the room, greet the patient, and provide for privacy.

14. Perform safety steps:
   - Perform hand hygiene.
   - Check the room for transmission-based precautions.
   - Introduce yourself, your role, the purpose of your visit, and an estimate of the time it will take.
   - Confirm patient ID using two patient identifiers (e.g., name and date of birth).
   - Explain the process to the patient and ask if they have any questions.
   - Be organized and systematic.
   - Use appropriate listening and questioning skills.
   - Listen and attend to patient cues.
   - Ensure the patient’s privacy and dignity.
   - Assess ABCs.

15. Perform the third check of the six rights of medication administration at the patient’s bedside after performing patient identification.

16. Perform the following steps according to the type of parenteral medication.

**INTRADERMAL – Administration of a TB Test**

a. Correctly identify the sites and verbalize the landmarks used for intradermal injections.

b. Select the correct site for the TB test, verbalizing the anatomical landmarks and skin considerations.

c. Put on nonsterile gloves if contact with blood or body fluids is likely or if your skin or the patient’s skin isn’t intact.

d. Use an alcohol swab in a circular motion to clean the skin at the site; place the pad above the site to mark the site, if desired.
Using the nondominant hand, gently pull the skin away from the site.

Insert the needle with the bevel facing upward, slowly at a 5- to 15-degree angle, and then advance no more than an eighth of an inch to cover the bevel.

Use the thumb of the nondominant hand to push on the plunger to slowly inject the medication. Inspect the site, noting if a small bleb forms under the skin surface.

Carefully withdraw the needle straight back out of the insertion site so not to disturb the bleb (do not massage or cover the site).

Activate the safety feature of the needle and place the syringe in the sharps container.

Teach the patient to return for a TB skin test reading in 48-72 hours and not to press on the site or apply a Band-Aid.

**SUBCUTANEOUS – Administration of Insulin in a Syringe**

- Correctly identify the sites and verbalize the landmarks used for subcutaneous injections. Ask the patient regarding a preferred site of medication administration.
- Put on nonsterile gloves if contact with blood or body fluids is likely or if your skin or the patient’s skin isn’t intact.
- Select an appropriate site and clean with an alcohol prep in a circular motion. Place the pad above the site to mark the location, if desired. Remove the cap from the needle without contaminating the needle.
- Pinch approximately an inch of subcutaneous tissue, creating a skinfold.
- Inject the needle at 90-degree angle, release the patient’s skin, and inject the medication. Withdraw the needle.
- Activate the safety feature of the needle and place the syringe in a sharps container.

**SUBCUTANEOUS – Administration with an Insulin Pen**

- Select the site and clean with an alcohol prep in a circular motion. Place the pad above the site to mark the location, if desired. Remove the cap from the needle without contaminating the needle.
- Put on nonsterile gloves if contact with blood or body fluids is likely or if your skin or the patient’s skin isn’t intact.
- Pinch approximately an inch of subcutaneous tissue, creating a skinfold.
- Inject the needle quickly at a 90-degree angle, continue to hold the skinfold, and inject the medication. After the medication is injected, count to 10, remove the needle, and release the skinfold.
- Dispose of the needle in a sharps container. Replace the top cap to the insulin pen.

**INTRAMUSCULAR – Deltoid**

- Correctly identify the site and verbalize the landmarks used for a deltoid injection.
- Put on nonsterile gloves if contact with blood or body fluids is likely or if your skin or the patient’s skin isn’t intact.
- Use an alcohol swab in a circular motion to clean the skin at the site. Place a pad above the site to mark the location. Remove the cap from the needle without contaminating the needle.
- Depending on the muscle mass of the deltoid, either grasp the body of the muscle between the thumb and forefingers of the nondominant hand or spread the skin taut.
- Inject the needle at a 90-degree angle.
- Follow agency policy and manufacturer recommendations regarding aspiration.
- Continue to hold the muscle fold and inject the medication. After the medication is injected, count to 10, remove the needle, and release the muscle fold.
h. Activate the safety on the syringe. Place the syringe in a sharps container.

**INTRAMUSCULAR – Vastus Lateralis**

a. Correctly identify the site and verbalize the landmarks to locate the vastus lateralis site.
b. Put on nonsterile gloves if contact with blood or body fluids is likely or if your skin or the patient’s skin isn’t intact.
c. Use an alcohol swab in a circular motion to clean the skin at the site. Place the pad above the site to mark the location. Remove the cap from the needle without contaminating the needle.
d. Depending on the muscle mass of the vastus lateralis, either grasp the body of the muscle between the thumb and forefingers of the nondominant hand or spread the skin taut.
e. Inject the needle at a 90-degree angle.
f. Follow agency policy and manufacturer recommendations regarding aspiration.
g. Continue to hold the muscle fold and inject the medication. After the medication is injected, count to 10, remove the needle, and release the muscle fold.
h. Activate the safety on the syringe. Put the needle in a sharps container.

**INTRAMUSCULAR – Ventrogluteal (Using the Z-track Technique)**

a. Correctly identify and verbalize the landmarks used to locate the ventrogluteal site.
b. Put on nonsterile gloves if contact with blood or body fluids is likely or if your skin or the patient’s skin isn’t intact.
c. Use an alcohol swab in a circular motion to clean the skin at the site and place a pad above the site to mark the location. Remove the cap from the needle without contaminating the needle.
d. Place the ulnar surface of the hand approximately 1 – 3 inches from the selected site; press down and pull the skin and subcutaneous tissue to the side or downward.
e. Maintaining tissue traction, hold the syringe like a dart and insert the needle into the skin at 90 degrees.
f. Maintaining tissue traction, use the available thumb and index finger to help stabilize the syringe.
g. Follow agency policy and manufacturer recommendations regarding aspiration. If aspiration is required, pull back the plunger and observe for blood return. If there is no blood return, inject the medication. If blood return is observed, remove the needle, and prepare a new medication.
h. Maintaining tissue traction, wait 10 seconds with the needle still in the skin to allow the muscle to absorb the medication. Withdraw the needle from the site and then release traction. Do not rub/massage the site.
i. Activate the safety feature of the needle; place in a sharps container.
Following Conclusion of All Injections

1. Assess site; apply Band-Aid if necessary and appropriate.
2. Remove gloves. Perform hand hygiene.
3. Ensure safety measures before leaving the room:
   - CALL LIGHT: Within reach
   - BED: Low and locked (in lowest position and brakes on)
   - SIDE RAILS: Secured
   - TABLE: Within reach
   - ROOM: Risk-free for falls (scan room and clear any obstacles)
4. Document medication administered, including the site used for the injection.