
To introduce medication into muscle, bypassing subcutaneous tissue and fat.

1. Muscles have fewer nerve endings but more blood vessels. The disadvantages of the intramuscular route are the possibility of damage to nerves, blood vessels or bone.
2. If the medication is accidentally introduced into the blood stream, the medication will be absorbed more rapidly.
3. Body size, nutritional status and the medication's character (thick or irritating) shall determine the amount of medication injected into one site (3ml is maximum limit).
4. Patient and caregiver can be taught intramuscular injections.
5. Rotate injection sites to avoid tissue trauma to same site.
6. For intramuscular injections, select a 20 to 25-gauge needle with a medium bevel. The needle length can be 1-1 1/2 inches.
7. A filter needle should be used to draw up medication from an ampule and then replaced with appropriate size needle for injection.
8. Instructions given to patient/caregiver.
9. Use at least 2 patient identifiers prior to administering medications.

Medication

Syringe (20- to 25-gauge needle 1-3 inches)

Alcohol wipe

Antiseptic wipe

Puncture-proof container

Gloves

Sterile gauze

Filter needle, if necessary

1. Adhere to Standard Precautions.
2. Explain procedure to patient.
3. Check doctor's order for medication, dosage and route of administration.
4. Draw up medication after having injected equal amount of air into vial. If using an ampule, no air is to be injected. Recheck medication dosage. Select appropriate injection needle: 1-1 1/2 inch needle (22- to 27-gauge for aqueous solution or 18- to 25-gauge for viscous or oil-based solution) for adults; 5/8- to 1-inch needle for children.

5. Select injection site (deltoid, vastus lateralis, or gluteal) with no bruises, induration, atrophy or signs of infection.
 6. Assist patient to comfortable position: lying on side or back with flexed knee and hip (ventrogluteal site); lying supine with knee slightly flexed (vastus lateralis site); or seated or supine with hand on hip or lower arm flexed across abdomen or lap (deltoid site). Drape for privacy, as needed.
 7. Clean site with alcohol wipe/antiseptic wipe by starting at the center and moving outward in circular motion.
 8. With nondominant hand just below site, pull skin 2.5 to 3.5 cm down or laterally for Z-track administration. Hold this position until medication is injected.
 9. Insert needle at 90-degree angle through the skin and into the muscle.
 10. Pull back on plunger to aspirate. If there is no blood aspirated, medication may be injected at rate of 1 mL/10 seconds. If there is blood aspirated, withdraw needle, discard medication and syringe properly and repeat procedure, choosing another injection site.
 11. If no blood appears, inject medication at rate of 1 mL/10 sec. Avoid moving syringe.
 12. Wait 10 seconds. Then withdraw needle smoothly; release skin, and place antiseptic swab or sterile gauze gently on site. Apply gentle pressure. Do not massage site.
 13. For ventrogluteal and vastus lateralis sites, encourage leg exercises.
 14. Dispose of used supplies, remove gloves, and perform hand hygiene.
1. Document in patient's record:
 - a. Medication administered, dose, time, route, site.
 - b. Patient's response to procedure, side effects and management.
 - c. Instructions given to patient/caregiver.
 - d. Communication with the physician.

