



Intramuscular Administration

EMT-Basic

Advanced EMT

Paramedic

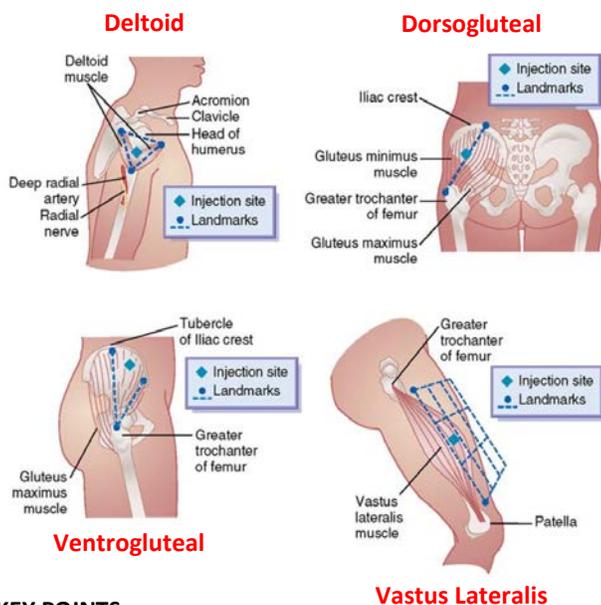
PROCEDURE

- ❑ Prepare medication per practice guideline.
- ❑ Perform the MACC – Medication Administration Cross Check.
- ❑ Assure that a clean, unused IM needle is attached to syringe for injection.
- ❑ Locate landmarks for desired location:

Vastus Lateralis	<i>Vastus Lateralis and Deltoid (except infants) are the preferred sites.</i>
Deltoid	<i>Choose preferred site based on volume needed.</i>
Ventrogluteal	<i>Ventrogluteal is secondary site.</i>
Dorsogluteal	<i>Dorsogluteal is least preferred site.</i>
- ❑ Clean site with alcohol and allow area to dry.
- ❑ While holding skin taut, insert needle into skin at a 90 degree angle with a quick darting motion.
- ❑ Pull back on the syringe to ensure there is no blood return. If there is blood, remove needle and repeat procedure with a fresh needle.
- ❑ Inject the medication.
- ❑ Withdraw the needle and syringe and press an alcohol swab on the injection site.
- ❑ Medications eligible for IM administration:

Dexamethasone	Fentanyl	Ketamine (analgesia, pt restraint)
Diphenhydramine	Glucagon	Midazolam
Epinephrine	Ketorolac	Naloxone

REFERENCE GRAPHICS



Muscle	Age	Considerations	Max volume
Vastus Lateralis Muscle	Preferred site for infants and children <3 years but may be used all ages	Large easily accessible muscle No nearby major nerves or vessels	5 mL
Deltoid Muscle	Toddler, preschool, adolescents, adults	Small muscle mass can tolerate only a small fluid volume. Faster absorption rate than gluteal sites Easily accessible Less pain than vastus lateralis Possible damage to radial and axillary nerves	1-2 mL
Dorsogluteal Muscle	Contraindicated in children less than 3 years old	Well-developed muscle in older child. Depth of overlying subcutaneous tissue varies between patients. Risk of damage to the sciatic nerve	4 mL
Ventrogluteal Muscle	Considered in children less than 3 years old	No nearby major nerves or vessels Prominent bony landmarks Thin layer of subcutaneous tissue Less painful than vastus lateralis	2.5 mL

KEY POINTS

- Ensure that a medication administration cross-check (MACC) has been completed

1 in (25 mm)

Men and women, less than 60 kg* (130 lbs)



Men and women, 60–70 kg (130–152 lbs)



1.5 in (38 mm) OR

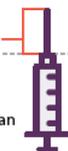
1 in (25 mm)

Men, 70–118 kg (152–260 lbs)
Women, 70–90 kg (152–200 lbs)



1.5 in (38 mm)

Men, greater than 118 kg (>260 lbs)
Women, greater than 90 kg (>200 lbs)



Equipment

- 2-5 mL syringe dependent on drug dose
- 21g needle
- Alcohol prep



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Revision Date: April 2021

Medical