

Guidelines for Intramuscular and Subcutaneous Injection Administration

Intramuscular Injections ²					
SITE ¹	Infant	Toddler	Preschool-Aged	School-Aged	Adolescent/Adult
Vastus lateralis	Needle length: 5/8 inch Volume: 0.5 mL **recommended for infants < 7 months of age	Needle length: 5/8 – 1 inch Volume: 0.5 – 1 mL	Needle length: 1 inch Volume: 1 mL	Needle length: 1 inch Volume: 1.5 – 2 mL	Needle length: 1-3 inches Volume: 1-5 mL
Ventrogluteal	Needle length: 5/8 inch Volume: 0.5 mL **recommended for infants > 7 months of age	Needle length: 5/8 – 1 inch Volume: 1 mL	Needle length: 1 inch Volume: 1.5 mL	Needle length: 1-1.5 inches Volume: 1.5-2 mL	Needle length: 1-3 inches Volume: 1-5 mL
Deltoid	Not recommended	Needle length: 5/8 – 1 inch Volume: 0.5 mL	Needle length: 5/8 – 1 inch Volume: 0.5 mL	Needle length: 5/8 – 1 inch Volume: 0.5 – 1 mL	Needle length: 1-3 inches Volume: 0.5 – 2 mL
Dorsogluteal	Not recommended	Not recommended	Not recommended	Needle length: 1/2-1.5 inches Volume: 1.5-2 mL	Needle length: 1-3 inches Volume: 1-5 mL
Subcutaneous Injections ² : May be given in upper outer arm, anterior thigh, abdomen, upper back, or buttocks					
Infant or Child		Adolescent or Adult		Obese Person	
Needle length: 3/8 inch Needle gauge: 25 Volume: *no more than 0.1 mL for intradermal *no more than 0.5 mL for small child * no more than 1 mL preschool or school-aged child		Needle length: 1/2 - 5/8 inch Needle gauge: 25-27 Volume: 0.5 – 1 mL		Needle length: 7/8 inch Needle gauge: 25-27 Volume: 0.5 – 1 mL	

¹Follow manufacture's instructions for required administration sites.

²Needle length should be sufficient to reach muscle.

References:

Bowden, V. R., & Greenberg, C. S. (2003). Medication administration: Intramuscular. *Pediatric Nursing Procedures* (pp. 374-375). Philadelphia: Lippincott, Williams, & Wilkins.
 Bowden, V. R., & Greenberg, C. S. (2003). Medication administration: Subcutaneous. *Pediatric Nursing Procedures* (pp. 374-375). Philadelphia: Lippincott, Williams, & Wilkins.
 (2000). Intramuscular injections. *Nursing Procedures*. Philadelphia: Lippincott, Williams, & Wilkins.