# INTRAMUSCULAR INJECTION IN AMBULATORY SETTING

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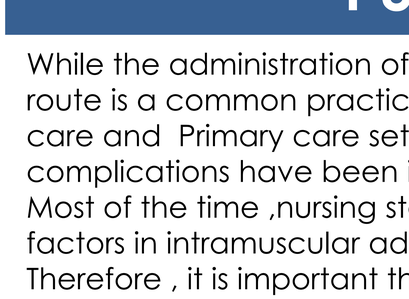
## BACKGROUND

A medication administered into a muscle is known as an Intramuscular (IM)injection . The IM route allows rapid absorption of specific medication . Choosing a muscle is dependent on the medication volume and age/size of the patient . Poor technique and incorrect land marking of the injection site can lead to site reactions , sub-optimal medication absorption and adverse events.




1. Assemble the necessary equipment, including the medication, sterile needle, alcohol swabs, and bandage.
2. Clean the injection site with an alcohol swab.
3. Pinch a fold of skin and insert the needle at a 90-degree angle into the skin.
4. Push the plunger of the syringe to inject the medication into the muscle.
5. Remove the needle and apply a bandage to the injection site.

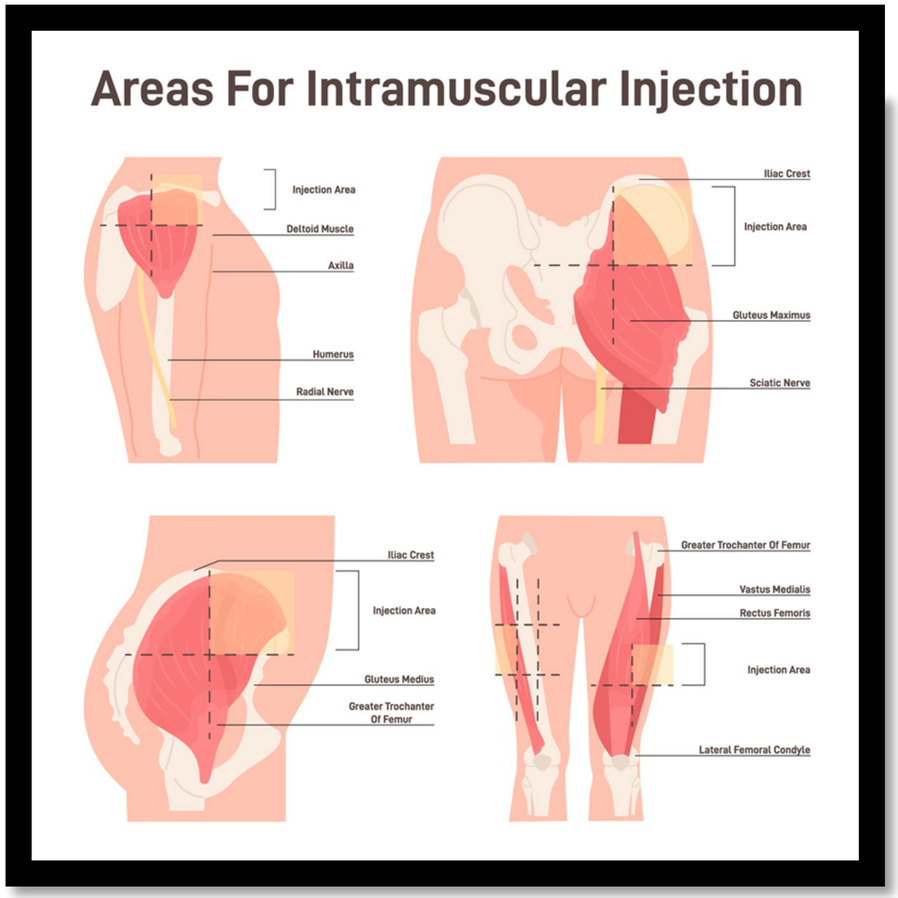
## PURPOSE

While the administration of medication via intramuscular route is a common practice in ambulatory such as Quick care and Primary care setting , several concerns and complications have been identified with the procedure . Most of the time ,nursing staff needs to consider several factors in intramuscular administration.
Therefore , it is important the up to date guidelines are available to assist the nursing staff to decide effective administration of intramuscular injection to minimize and prevent discomfort and to ensure safety measures in the event of adverse reactions.

## METHODS

In collaboration with the clinical staff and research of best practices, the staff analyzed and discovered the recommended guidelines in administering intramuscular injections with the following special consideration :

- Needle size and length
- Patient age , weight / build
- Type /volume of the medication to be administered
- Choosing injection site for medication administration




| Age group (kids) | Needle length | Injection site |
|---|---|---|
| Infants, under 1 month | 5/8 inch | Outer thigh |
| Infants, 1-12 months | 1 inch | Outer thigh |
| Toddlers, 1-2 years | 1-1.25 inches | Preferred: Outer thigh |
| | 5/8-1 inch | Alternative: Deltoid muscle of arm |
| Children, 3-10 years | 5/8-1 inch | Preferred: Deltoid muscle of arm |
| | 1-1.25 inches | Alternative: Outer thigh |
| Adolescents and teens, 11-18 years | 5/8-1 inch | Preferred: Deltoid muscle of arm |
| | 1-1.5 inches | Alternative: Outer thigh |

| Body weight (adults) | Needle length | Injection site |
|---|---|---|
| Less than 130 lbs (59 kg) | 5/8-1 inch | Deltoid muscle of arm |
| 130-152 lbs (59-69 kg) | 1 inch | |
| 153-199 lbs (69-91 kg) — women | 1-1.25 inches | |
| 153-259 lbs (69-118 kg) — men | 5/8-1 inch | |
| More than 200 lbs (91 kg) — women | 5/8-1 inch | |
| More than 260 lbs (118 kg) — men | 5/8-1 inch | |
| Any weight or sex | 5/8-1 inch | Outer thigh |

## RESULTS

Utilizing the best practice in ambulatory setting in administering intramuscular injection initiated in all age group resulted in

- Decrease pain in injection site
- Faster /effective delivery of the medication thus increase patient's recovery/ response
- Prevent adverse reactions , vagal and vasovagal response

## CONCLUSIONS

UMC is focused in providing patient centered care , through the expectation that every patient will be treated with Compassion, Accountability , Respect and Integrity , utilizing this tool for our patient , improves overall employees and patient's satisfaction as well as continuing to deliver the highest level of care

## REFERENCES

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Minnesota Department of Health(2019) ; needle gauge resource list
World Health Organization (2010).Best practice for injection.
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