

Lesson One - Introduction to Intramuscular Injections

LEARN: Intramuscular Injections Slide Presentation

20 minutes

Purpose:

Participants will receive a thorough introduction to intramuscular injections and the proper procedure and documentation surrounding it.

Materials:

- *Introduction to Intramuscular Injections* slide presentation
- *Introduction to Intramuscular Injections Check-Off (Sample Medication Administration Record)*
- *Introduction to Intramuscular Injections (Focus on Empathy)* worksheet (completed)
- Injection pad, model or simulator

Facilitation Steps:

1. Share the following information as you show the slide presentation:

Slide 1: Introduction Slide (Source: Perry, A., Potter, P., & Ostendorf, W. (2014). *Clinical Nursing Skills and Techniques*. 8th Edition. Publisher: Mosby, Inc.)

Slide 2: Parenteral means administered in a manner other than through the digestive tract (in this case, by intramuscular injection)

See *Introduction to Intramuscular Injections (Focus on Anatomy)* worksheet. Discuss location of muscle.

Why absorbed faster? Muscle has a rich blood supply

Slide 3: Most vaccines are given into the muscle. Some conditions such as multiple sclerosis (a nerve disorder) is treated with IM anti-inflammatories called interferons.

If the patient cannot take oral pain medications (in cases like nausea/vomiting) and there is no

IV access or medication cannot be given IV, then IM would be the chosen route.

Slide 4: Site should be free of pain, infection, necrosis, bruising and abrasions.

Consider the location of underlying bones, nerves and blood vessels and the volume of medication that you will administer.

Because of the sciatic nerve location, the dorsogluteal muscle is not recommended as an injection site. If a needle hits the sciatic nerve, the patient may experience partial or permanent paralysis of the leg. If it must be used, aspiration is recommended.

The recommendation for pediatric IM injection sites includes use of the anterolateral thigh for infants up to 12 months of age, deltoid in children 18 months and older and ventrogluteal for children of all ages.

Doses over 3mL should be split. For example, if a dose is 5mL (although unusual), 3mL could go in the left Vastus lateralis and 2mL in the right.

Have students locate these muscles on each other

Slide 5: Gauge refers to the diameter of the needle. The higher the gauge the thinner the needle.

The viscosity of the medication, injection site, patient's weight and amount of subcutaneous tissue influence needle size selection.

For example, give medications in aqueous (thin) solutions with a 20- to 25-gauge needle. Give viscous (thick) with an 18- to 21-gauge needle.

Use a small-gauge (22- to 25-gauge) needle for children.

Introduction to Intramuscular Injections

(Show the students the supplies and where to find the length/gauge of a needle on the package)

Slide 6: Review *Introduction to Intramuscular Injections (Focus on Empathy)* worksheet.

Prior to administering any medication, it is important to review the medication administration record and provider's order. It is essential to review general information about the medication as well.

Make sure the medication is appropriate for your patient.

Since IM injections causes pain, have the order changed if the medication could be given via a different route.

Slide 7: *Demonstrate swabbing of vial, removing needle cap in one smooth motion to prevent a rebound needle stick and drawing of medication*

One handed scoop method: Place the cap on a flat surface and hold the syringe in one hand. Keep the other hand by your side. Slide the needle into the cap, then lift it up and snap it on securely using only one hand.

Adding air equal to the dose into the vial prior to removing the medication equalizes the pressure in the vial.

Finish completing the rights of administration once dose is drawn. This may be done at a medication cart or at bedside depending on facility.

Slide 8: Review proper identifiers (name, date of birth, medical record number, photograph in MAR).

Ask students how they would explain an intramuscular injection. Discuss FOCUS Part 1 - Empathy

Slide 9: Prepare the site. Assist patient to comfortable position. Make sure you are communicating the process to the patient.

Slide 10: *Demonstrate intramuscular injection.*
Note: Depending on which injection trainer you use, it may not have Z-track injection capability.

Z-track: Pull on skin with side of hand moving tissue to prevent later tracking. The Z-track left after injection prevents deposit of medication through sensitive tissue.

Per recent literature, aspiration is not needed for pediatric IM injections if proper technique and location is used except for the dorsogluteal site where it should be used. Some textbooks still recommend it though. Aspiration is not needed for vaccines per CDC.

Sisson, H. (2015). Aspirating during the intramuscular injection procedure: a systematic literature review. *Journal of Clinical Nursing*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/25871949>

Centers for Disease Control (2016). Vaccine Administration. Retrieved from <https://www.cdc.gov/vaccines/pubs/pinkbook/vacc-admin.html>

Slide 11: Follow these steps for 'after administration.' Patient teaching can include answering questions about when pain relief is to be expected, reassessment in 15-30 minutes and signs/symptoms of an adverse reaction.

Slide 12: Every MAR is different. Documentation should include these things.

Demonstrate documentation of intramuscular injections.