

# Step-by-step guide

## Intramuscular Injections

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Reviewed June 2021

# Gather your equipment



# Procedure—All sites

## Don PPE



Wash hands and don appropriate PPE in accordance with local trust policy.

## Prepare the Equipment



Attach a blunt fill needle to the syringe. Use one with a filter if drawing up from a glass ampoule.

Injections should be drawn up in a clean area using an aseptic non-touch technique.

## Snap open the Ampule



If the medication is in a glass ampoule, flick it to drain the medication from the stem.

Using a sterile swab snap off the top along the score line.

Check for any glass in the liquid, if present use a new vile.

## Draw up the medication



Draw up the prescribed medication from the vile.

# Procedure—All sites

## Remove needle



Remove the fill needle and dispose into the sharps bin.

## Attach new needle

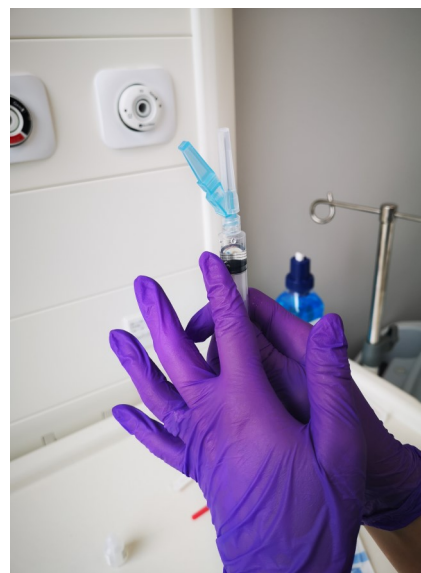


Using ANTT, attach a new needle.

Use a 21G safety needle, this is the needle of choice for an intramuscular injection.

Using a smaller needle may mean the medication is not administered into the muscular layer.

## Tap Syringe



Tap the side of the syringe to allow any air bubbles to rise to the top.

## Remove excess air



Gently expel the air and any excess medication, leaving exactly the right dose in the syringe.



# Procedure—All sites

## Label Syringe



If you are giving more than one medication, you must label the syringe.

Remove gloves and wash hands.

## Go to Patient



Take the medication in the syringe to the patient in an injection tray, ensure you maintain ANTT.

Ensure there is a sharps bin present.

## Confirm patient identify



Confirm patient identify both verbally and via the ID band against the medication administration record

## Position the patient

See the following pages for the individual site procedures

Deltiod—p6

Dorsogluteal—p9

# Procedure—Deltoid Site

## Position the patient

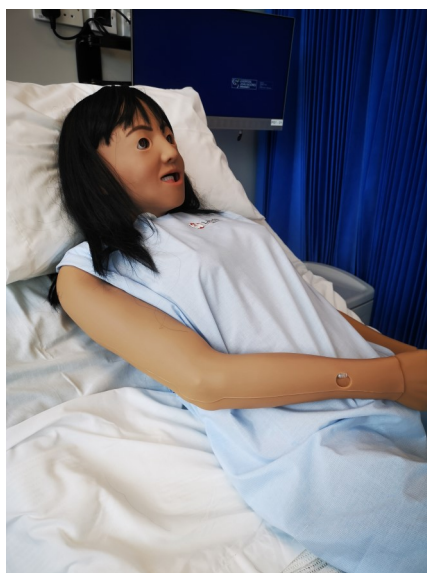


The best position for the patient is to be seated, however they may also stand.

Ensure the syringe and equipment are all at hand.

Don clean gloves.

## Locate Deltoid



Expose the upper arm. Ask the patient to relax their arm across the abdomen or lap.

Locate the lower edge of the acromion process.

## Locate the axilla



Estimate the point opposite the axilla.

## Identify the deltoid muscle



Visualize an inverted triangle with the base at the acromion process and the apex just below the axilla. This defines the deltoid muscle, which overlies the middle aspect of the shaft of the humerus.

# Procedure—Deltoid Site

## Make a rectangle (A)



Locate a rectangular area in the middle of the triangle, such that its upper edge is two to three finger-widths below the acromion process and its lower edge is at a point just above the axilla

## Make a rectangle (B)



The side edges of the rectangle should be parallel to the arm, as shown. The injection site is in the middle of this area. Assess the injection site for signs of inflammation, oedema, infection and skin lesions—if any of these are present you should use an alternative site.

## Z-Tracking (A)



If trust policy indicates you should clean the site with 70% alcohol for 30 seconds and leave to dry for 30 seconds.

## Z-Tracking (B)



Stretch the skin by 2-3cm using your thumb as shown.

This technique is known as z-tracking. It minimalizes pain and reduces leakage from the site.



# Procedure—Deltoid Site

## Insert the needle



Use a darting motion and insert the needle at an angle of 90°. Insert the full length of the needle, there is no need to leave a gap between the skin and the hub of the needle.

## Do not check for flashback



You do not need to pull the plunger back to check for a flashback of blood. This is because there is no chance of hitting a blood vessel at this site.

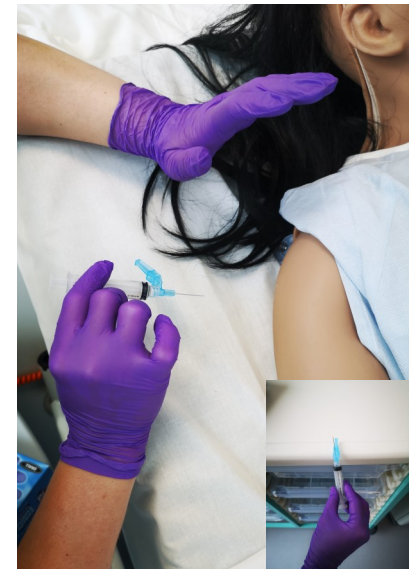
## Inject the medication



Whilst keeping traction on the skin, inject the medication at a rate of 1ml per 10 seconds

You must inject the medication slowly as this minimises pain and allows the muscle fibres to stretch to accommodate the fluid.

## Wait before removing needle



Wait 10 seconds before removing the needle. Once the needle is removed, immediately release the retracted skin. This allows the medication to evenly distribute.

Immediately activate the safety device on the needle.



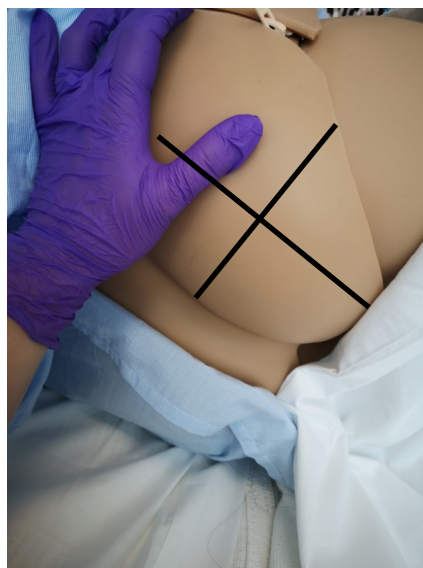
# Procedure—Dorsogluteal Site

## Position the patient



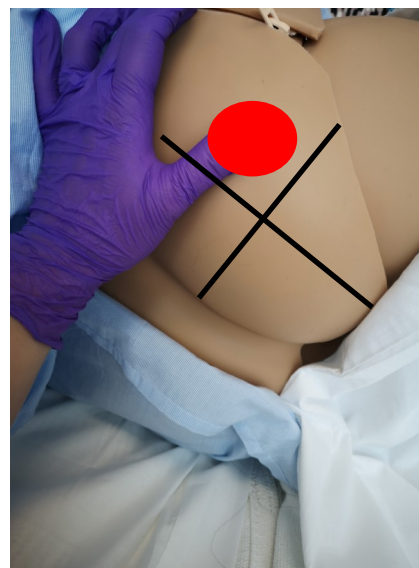
Position the patient on their side in order to expose the chosen buttock. Ensure the patient's privacy and dignity. Ask the patient to remove clothing to expose the site. Put on a clean pair of gloves as appropriate.

## Locate the bony prominences of the ilium



Ask the patient to bend their knees to allow you to landmark the four bony prominences and mark out an imaginary cross, so dividing the area into quarters.

## Identify the injection site



The upper outer quadrant of the buttock is your landmark for administering the intramuscular injection. Make a mental note of the centre of this quadrant, which is where you should give the injection. Assess the injection site for signs of inflammation, oedema, infection and skin lesions—if any of these are present you should use an alternative site.

## Z-tracking



If trust policy indicates you should clean the site with 70% alcohol for 30 seconds and leave to dry for 30 seconds.

Stretch the skin by 2-3cm using your thumb as shown on page 7.

This technique is known as z-tracking. It minimises pain and reduces leakage from the site.

# Procedure—Dorsogluteal Site

## Insert the needle



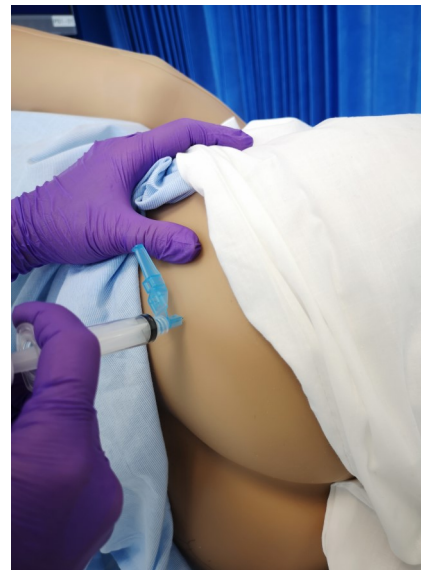
Use a darting motion and insert the needle at an angle of 90°. Insert the full length of the needle, there is no need to leave a gap between the skin and the hub of the needle.

## Check for Flashback



While maintaining skin traction, pull back on the plunger. If blood appears in the syringe, support the skin, withdraw the needle and start again from the beginning (Sisson, 2015). If blood appears, the needle has entered a capillary. If you were to continue with the injection, it would enter the blood supply, not the muscle.

## Inject the medication



Whilst keeping traction on the skin, inject the medication at a rate of 1ml per 10 seconds

You must inject the medication slowly as this minimises pain and allows the muscle fibres to stretch to accommodate the fluid.

## Wait before removing needle



Wait 10 seconds before removing the needle. Once the needle is removed, immediately release the retracted skin. This allows the medication to evenly distribute.

Immediately activate the safety device on the needle.

# Procedure— Vastus Lateralis site

## Position the patient



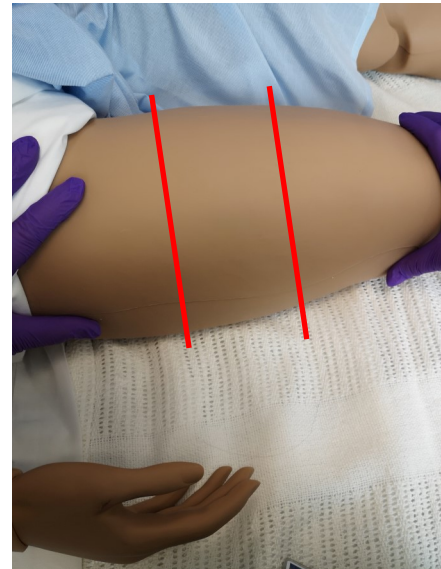
The patient needs to adopt a supine position. Ensure the patient's dignity and privacy are maintained at all times.

## Locate the vastus lateralis



To locate the vastus lateralis muscle, palpate from a hand's breadth above the knee to a hand's breadth below the greater trochanter, on the anterior lateral aspect of the thigh.

## Identify the injection site



The middle third of the muscle is your landmark for administering the injection. The width of the muscle is usually from the midline of the thigh to the midline of the thigh's outer side.

## Z-tracking



If trust policy indicates you should clean the site with 70% alcohol for 30 seconds and leave to dry for 30 seconds.

Stretch the skin by 2-3cm using your thumb as shown.

This technique is known as z-tracking. It minimises pain and reduces leakage from the site.



# Procedure— Vastus Lateralis site

## Insert the needle



Use a darting motion and insert the needle at an angle of  $90^\circ$ . Insert the full length of the needle, there is no need to leave a gap between the skin and the hub of the needle.

## Do not check for flashback



You do not need to pull the plunger back to check for a flashback of blood. This is because there is no chance of hitting a blood vessel at this site.

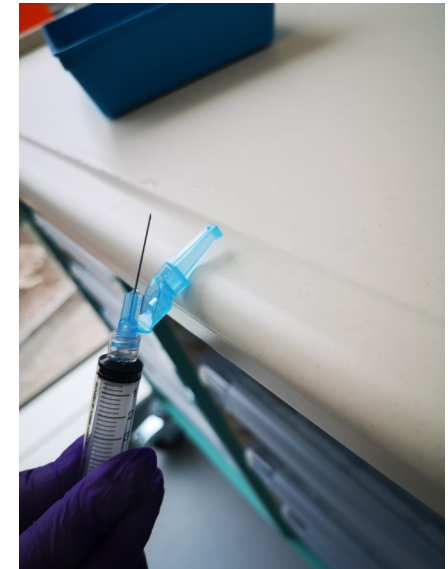
## Inject the medication



Whilst keeping traction on the skin, inject the medication at a rate of 1ml per 10 seconds

You must inject the medication slowly as this minimises pain and allows the muscle fibres to stretch to accommodate the fluid.

## Wait before removing needle



Wait 10 seconds before removing the needle. Once the needle is removed, immediately release the retracted skin. This allows the medication to evenly distribute.

Immediately activate the safety device on the needle.

# Procedure—All Sites

## Dispose of Needle



Once the needle is removed from the chosen site ensure the safety device is activated.

Dispose of the needle in a sharps bin immediately.

## Aftercare



Apply pressure with a dry, sterile gauze if necessary.

Dispose of waste according to trust policy.

Explain to the patient that the site of injection may be sore for 1-2 days.

## Document



Selected description: doxycycline hyclate 100 mg Cap  
Quantity: 30 Capsule,  
Sig: 1 Capsule twice a day by mouth

**Write Prescription**

Strength: 100 mg  
Form: Capsule  
Route: Oral  
Quantity: 30  
Desage: Capsule  
Frequency: bid - twice a day

Instructions: po - by mouth  
Refills: 11  
Start Date: Aug 31, 2012  
End Date: Feb 27, 2013

Provider: Dr. William A. Richards  
Instructional Notes: Take with food

Pending Save

Document on medication administration record. Ensure you document the site of injection either on the MAR or in patient notes.