

Student Name:

Medical School:

Year:

Subcutaneous (SC) / Intramuscular (IM) / Intradermal Injection (ID)

You have been asked to see a patient who requires: a subcutaneous injection of Insulin or Clexane;
An intramuscular injection of morphine or flu vaccine and an intradermal injection of local anaesthetic.

Please can you administer all 3 injections for this manikin/patient
I will ask some questions before and during the procedure.

		Self	Peer	Peer/Tutor	Tutor
Why would you use IM / SC / ID route rather than oral route	<ul style="list-style-type: none"> ● Rapid action required ● Drug altered by intestinal secretions ● Drug not absorbed by the alimentary tract ● Patient cannot take oral drug, vomiting, NBM, unconscious ● Drug unavailable in oral format 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explain clinical indications	<ul style="list-style-type: none"> ● Subcutaneous – if the absorption needs to be slower than IM e.g. insulin / clexane ● Intramuscular – if a rapid response is required or if the drug degrades quickly in sub cutaneous tissue e.g. adrenaline / vaccines / tetanus ● Intradermal – allergy diagnosis, immunological test, local anaesthetic 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discuss anatomical and physiological principles	<ul style="list-style-type: none"> ● Layers: epidermis, dermis, subcutaneous tissue, deep fascia, muscle ● Absorption fastest in muscle because of the good blood supply 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Names 4 sites for IM injection and explains how to landmark. Names 3 sites for sub-cutaneous injection and recommendation regarding site	<ul style="list-style-type: none"> ● Deltoid, Ventrogluteal, Dorsogluteal or Vastus lateralis site ● Abdomen avoiding umbilicus, thigh or arm – advise patient to rotate site to avoid lipodystrophy 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explain contraindications	<ul style="list-style-type: none"> ● Allergy to drug ● Infection at injection site ● Coagulopathy (intramuscular injection) 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explain main complications	<ul style="list-style-type: none"> ● Pain ● Anaphylaxis ● Infection and sterile abscess ● Non-absorption in oedematous site ● Specific to IM: haemorrhage, nerve damage, embolus ● Wrong layer injected e.g. SC going IM or IM going SC 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wash hands	<ul style="list-style-type: none"> ● Hand wash with water and soap using the Ayliffe technique 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrate communication skills, obtaining informed consent and safety checks to be performed	<ul style="list-style-type: none"> ● Introduces themselves ● Clear explanation of the procedure, risks and benefits ● Allergies? Meds? History of anaphylaxis? ● Gains informed consent, ● 2 person check in clinical room and at bedside with all IM / SC / ID injections ● Right patient – ID, verbal, drug kardex ● Right drug ● Right dose ● Right route ● Right time ● Enquires if there are any questions from the patient 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prepares equipment	<ul style="list-style-type: none"> ● Collects all appropriate equipment & checks expiry dates, <ul style="list-style-type: none"> • Apron, non-sterile gloves and alcohol gel 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<ul style="list-style-type: none"> • Skin cleanser if appropriate (as per Trust Policy) • Sharps bin and cleaned injection tray. • Sterile gauze • Drawing up needle & syringe if appropriate • Prefilled device (Clexane syringe/ Insulin pen & needle) • Correct size needle for each technique • Intradermal: 26G brown or 27G grey for LA • Subcutaneous: 26G brown or 25G orange • Intramuscular: 23G blue or 21G green, • Needle length according to weight <p>● Drug and drug chart</p>				
Demonstrates procedure	<ul style="list-style-type: none"> ● Washes hands, puts non-sterile gloves & apron on ● Uses the drawing up needle & syringe to prepare the medication, expels any air from syringe and then changes the needle prior to administration of the medication (or prepares prefilled device according to manufactures guidelines) ● Selects appropriate site ● Positions the patient appropriately and comfortably ● Cleans the site if appropriate e.g. IM, according to local policy or prior to LA ● Gently pinches up the skin for subcutaneous or stretches the skin intramuscular, ID – depending on injection/ location – usually stretched but occasionally skin lifted ● Warns patient of sharp scratch ● Holds needle and syringe correctly & inserts needle at correct angle: Intradermal: 10° angle to skin and inserts the needle bevel up just under the skin to form a bleb when in correct space Subcutaneous: 45° or 90° angle Intramuscular: 90° angle to the skin and inserts two-thirds of needle - aspirate to check for blood for 5–10 seconds (dorsogluteal only) ● Administers drug slowly (1ml over 10 seconds) ● Removes needle from the skin – engages safety device and disposes of needle and syringe into the sharps bin ● Applies pressure to the site with sterile gauze if required ● Ensures patient is comfortable and disposes of equipment appropriately ● Washes hands following Trust policy ● Thanks patient 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discusses post-procedure management	<ul style="list-style-type: none"> ● Completes documentation including documentation on the drug chart of the drug administered 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates professionalism	<ul style="list-style-type: none"> ● Assessment throughout the procedure & encourages patient to ask questions 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall ability to perform procedure	<ul style="list-style-type: none"> ● Assess globally, would you be happy for this student to be supervised to perform IM, SC and ID injections? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self-assessed as at least pass:	Signature: _____ Date: _____				
Peer-assessed ready for tutor assessment:	Signature: _____ Date: _____				
Tutor assessed:	Signature: _____ Date: _____				

Notes

Fail Borderline Pass Good Excellent