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Giving a contraceptive injection

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Women who have decided to use the contraceptive injection as their method of contraception need to attend for regular repeat injections, at specific intervals depending on which medication is used (FSRH, 2015). The prescribing clinician will have ensured that the woman meets the UK Medical Eligibility Criteria for the injection (RCOG, 2015), and she will have already received counselling about the advantages and disadvantages of the method. You must adhere to the Nursing and Midwifery Council's *Standards for Medicines Management* (2010), which in this case includes awareness of the UK Medical Eligibility Criteria for the contraceptive injection (RCOG, 2015).

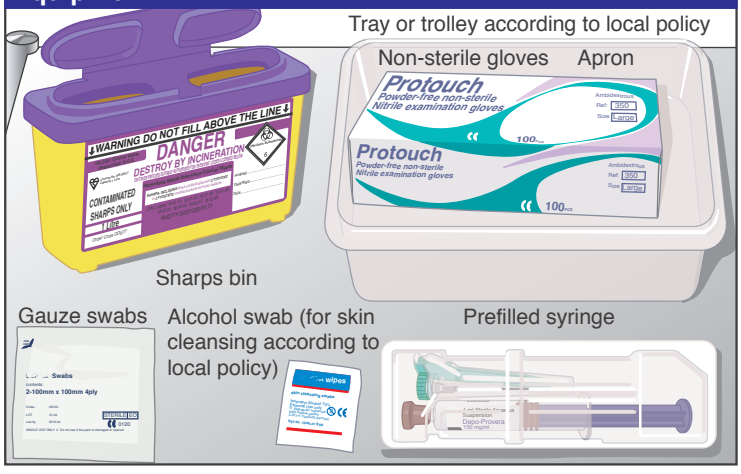
The contraceptive injection contains progestogen (depo medroxyprogesterone acetate or DMPA). Its main mode of action is to inhibit ovulation. Progestogen also thickens the cervical mucus, preventing the sperm from swimming to the egg, and thins the endometrium, reducing the changes of a fertilised egg implanting in the uterus.

The pages below show how to give one of the most widely used contraceptive injections, medroxyprogesterone acetate (Depo-Provera), which is given by intramuscular injection. Follow prescribing instructions to determine the correct interval between the injections. If the interval between the injections is greater than recommended, you must rule out pregnancy before giving the next injection, and advise the woman to use additional contraception (such as condoms) for a period after the injection. Guidance varies on how long this period should be: either 7 days (FSRH, 2015) or 14 days (BNF, 2016). If there is a risk of pregnancy, you can offer the woman emergency contraception, a bridging method, or a quick start on the injectable, as appropriate. She should also have a pregnancy test, no sooner than 3 weeks after the most recent episode of unprotected sexual intercourse (FSRH, 2015). The injection should not be given to a woman who is pregnant.

In a woman under 18 years of age, DMPA may be used as a first-line contraceptive after all options have been discussed and considered unsuitable or unacceptable (FSRH, 2015). Women under 25 years old will have been told that the injection can cause reductions in bone density, but that bone density normally recovers after discontinuing the injections (NICE, 2015). Discuss the need for a calcium-rich diet and the importance of doing weight-bearing exercise in order to boost bone density. It is worth reminding the woman that if she wants to conceive within the next year, the injection would not be the contraceptive of choice as fertility can be delayed for up to 1 year after using it (FSRH, 2015).

Carry out a re-evaluation of the risks and benefits of DMPA injections with women who want to continue to use this method for longer than two years (BNF, 2016).

Equipment



The use of needles to administer an injection poses a potential risk of needlestick injury to the healthcare professional (RCN, 2013). Employers are now required to eliminate the unnecessary use of sharps by providing medical devices that incorporate safety-engineered protection mechanisms (Health and Safety Executive, 2013; RCN, 2013; The European Council, 2010). Many such safety devices are available, but your choice of equipment will depend on what is available locally. Ensure that an appropriate sharps disposal container is to hand, as close as possible to the area where the sharp is being used (Health and Safety Executive, 2013).

Preparation for the examination

If this is a repeat injection, ask the patient if she has noticed any side effects, or if she has any concerns. Ask about her bleeding pattern: it is normal for the contraceptive injection to cause changes, such as amenorrhea, irregular bleeding, spotting or heavy bleeding. If you are concerned that her symptoms may not be hormonally related, consider other causes, such as sexually transmitted infections, and whether further investigations (such as swabs or an assessment by the prescribing clinician) are needed. If the woman is experiencing other side-effects, ensure that she wants to continue with the injection and/or arrange for her to see the prescribing clinician for advice. Before beginning, check the patient's identity, explain the procedure to the patient and gain verbal consent (NMC, 2015). Maintain the patient's privacy and dignity throughout the procedure. Check that the injection has been prescribed for this patient.

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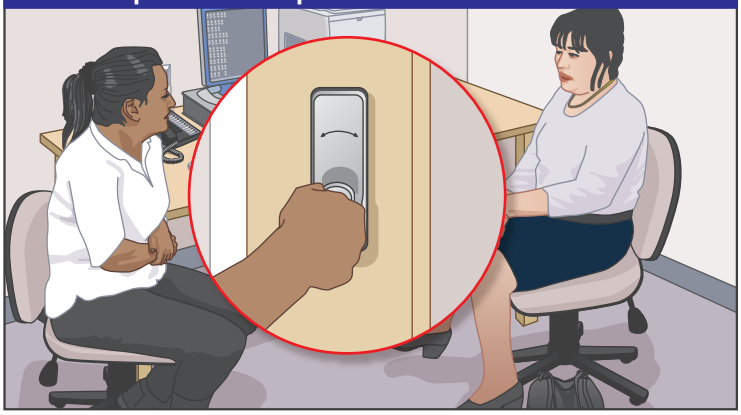
Offer the patient a chaperone

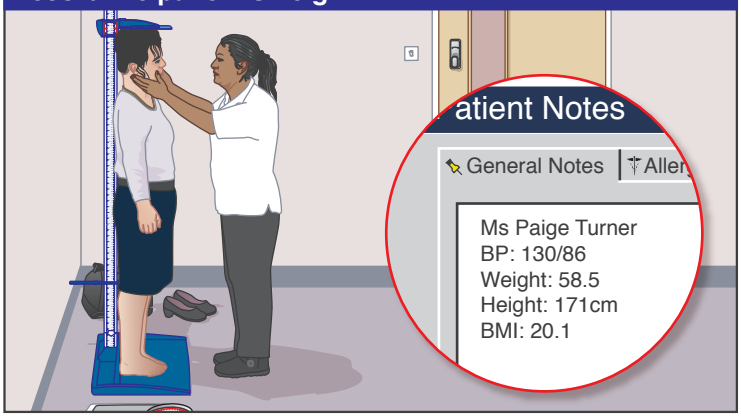


Ask the patient if she would like a chaperone (NHS Clinical Governance Support Team, 2005). If she confirms that she is comfortable being alone in the room with you, ask her if she is happy for you to lock the door. Decontaminate your hands by washing with soap and water and drying thoroughly or using an alcohol-based hand rub.

Record the patient's blood pressure

Record the patient's blood pressure and monitor for hypertension, as blood pressure may rise due to the medication. Hypertension can increase the patient's risk of adverse cardiovascular events. The prescribing clinician will have assessed these risks during the initial appointment. If the patient's blood pressure is greater than 160/95 mmHg, do not give the injection; refer the patient for medical advice.

Record the patient's height



If this is the patient's first appointment, record the patient's height as you will need this in order to determine her body mass index.

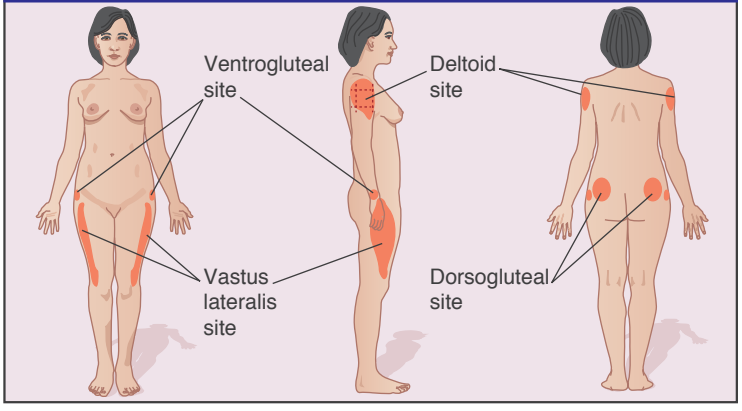
Record the patient's weight

Record the patient's weight and record her body mass index. Use of DMPA is associated with weight gain, particularly in women under the age of 18 years of age with a BMI above 30 kg/m^2. Women may gain more than 5% of their baseline body weight in the first 6 months of DMPA use (FSRH, 2015). Advise the patient about exercise and diet. Document all recorded measurements in the patient's notes.

Prepare the equipment

You must follow the Nursing and Midwifery Council's *Standards for Medicines Management* (2010) and local policies, including those on skin preparation and use of gloves. Check that the injection has been prescribed for your patient. Assemble the equipment; check that packaging is intact and not past its expiry date. Lay out the equipment on a cleaned trolley or tray, according to local policy and practice. Use a non-touch technique to avoid contamination and cross-infection.

Consider which injection site to use



The injection should be given by deep intramuscular injection into the gluteal muscle, the deltoid muscle or the lateral thigh (NICE, 2015). It is most commonly given into the buttock, but in patients who are overweight or obese, the needle may not reach the muscle and the injection may instead be delivered into subcutaneous tissue (FSRH, 2015). A brief description of the available sites for intramuscular injections follows below; please refer to the clinicalskills.net procedures on intramuscular injections for more details.

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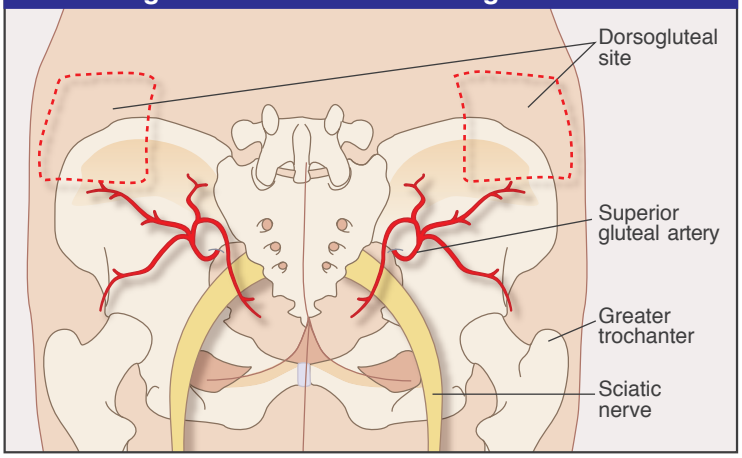
The dorsogluteal site has disadvantages

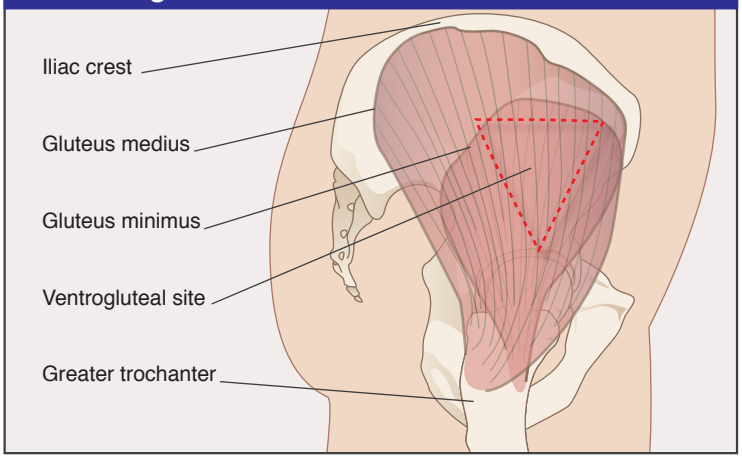


This site has the advantage that many practitioners in the UK are familiar with it, but it has several disadvantages, including the potential for damage to the sciatic nerve and the risk that the needle may not penetrate as far as the muscle in patients who are overweight or obese (FSRH, 2015). When using this site, you must check for flashback before giving the injection (see below).

Standing position for injecting into the dorsogluteal site

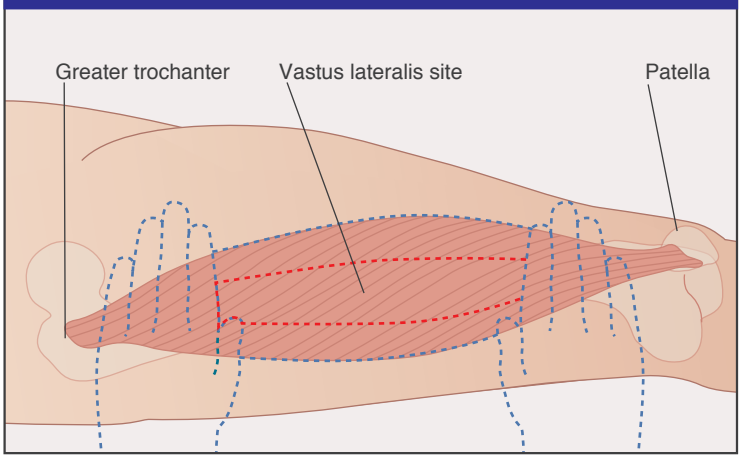
If using the dorsogluteal site, the patient can lie face down on the couch. The patient may prefer to stand, however. She will need to remove enough clothing to expose the site and rest her hands on the couch as shown. If the injection is being given on the right side, ask her to bend the right knee to lift the weight off her right leg and so relax the muscle to be injected.

The ventrogluteal site



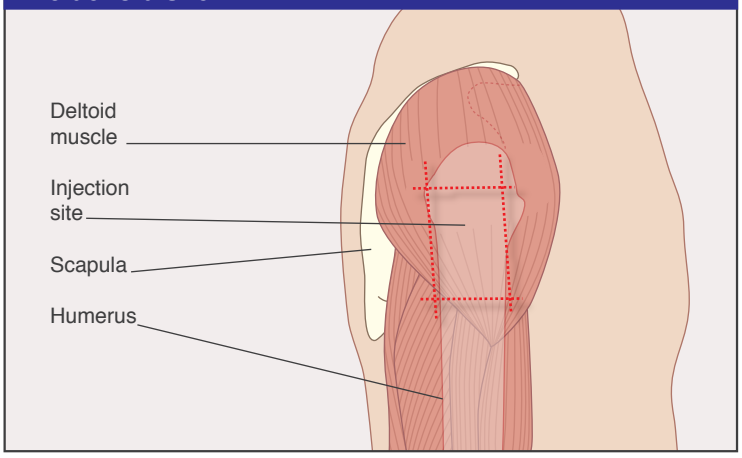
The ventrogluteal site is a safe injection site because it is relatively free of major nerves and blood vessels. Consider using this site if you have been trained to give injections in this region. In overweight or obese patients, however, there is still a risk that the needle may not penetrate as far as the muscle (FSRH, 2015).

The vastus lateralis site



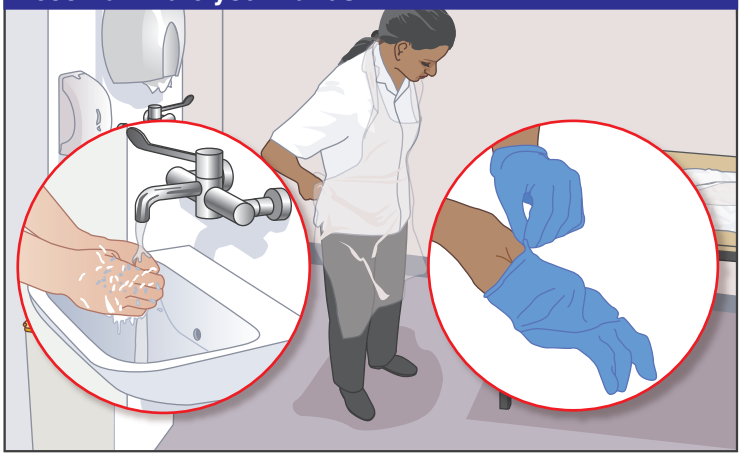
The vastus lateralis site is easy to access and there are few major blood vessels in the area. However, it can be painful and leave the patient in discomfort.

The deltoid site



Consider using the deltoid site if the patient is overweight or obese and you are concerned about whether the needle will reach the muscle tissue if you use the dorsogluteal or ventrogluteal sites (FSRH, 2015).

Decontaminate your hands



Decontaminate your hands and put on an apron and gloves, according to local policy. An apron is particularly important if you are not wearing uniform. Ask the patient to remove clothing to expose the chosen injection site.

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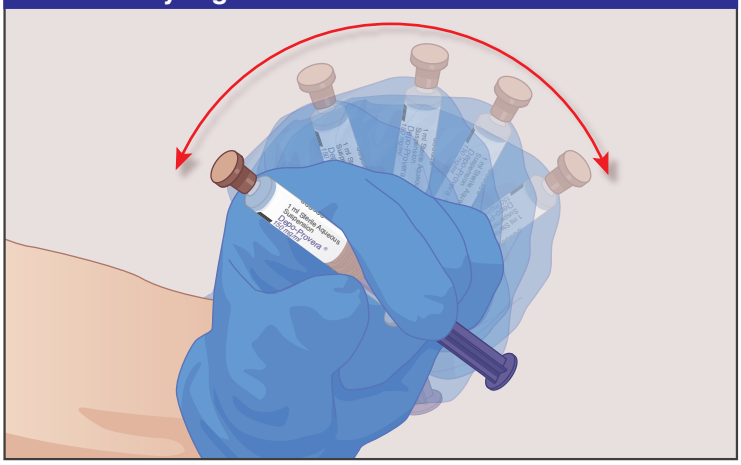
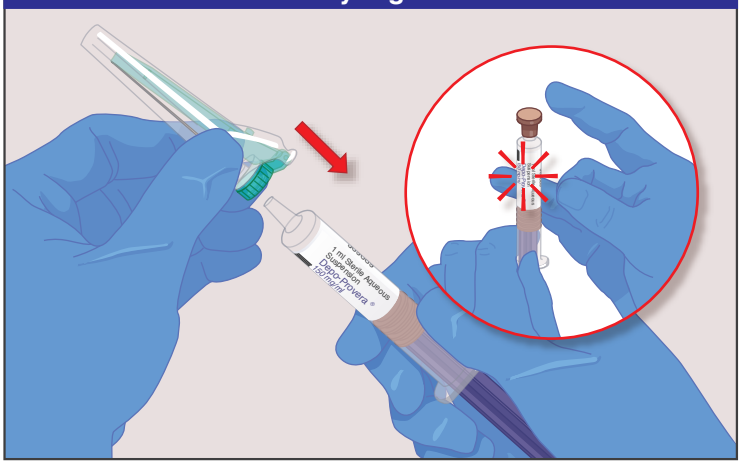
Shake the syringe



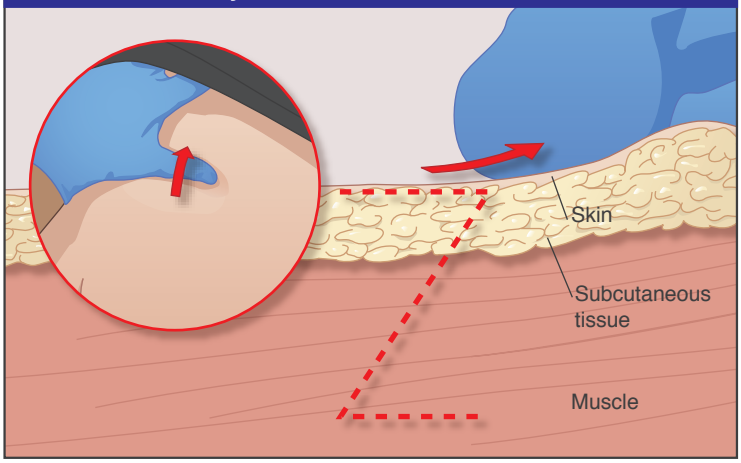
Shake the syringe to ensure that the medicine is present in uniform amounts throughout the suspension.

Attach the needle to the syringe



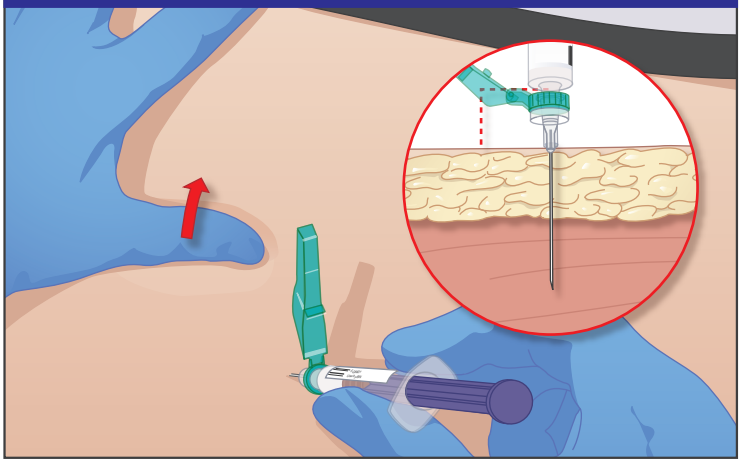
Tap the syringe gently to encourage air bubbles to rise (inset). Take the equipment to the patient, remove the cap from the syringe and attach the needle. Gently expel any air. Remove the protective cap from the needle.

Administer the injection: first stretch the skin



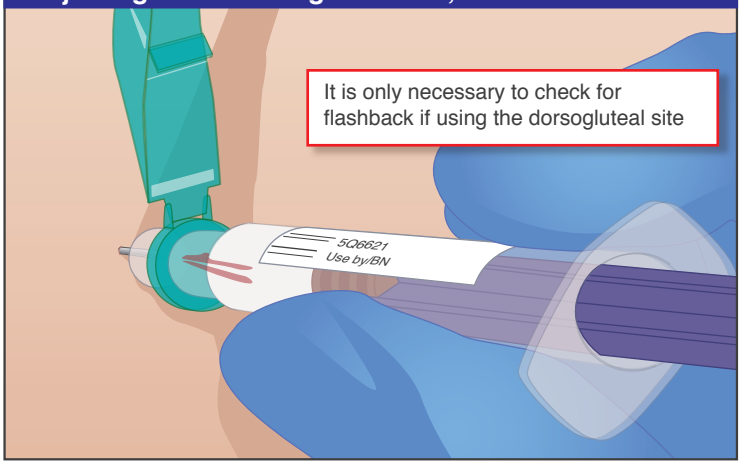
At your chosen injection site, stretch the skin 2 to 3 cm using your thumb, as shown. This technique is known as Z-tracking; it reduces pain and leakage from the injection site (Rodger and King, 2000; Nicoll and Hesby, 2002). When using this technique, it is not normally necessary to apply a plaster to the injection site after removing the needle.

Insert the needle



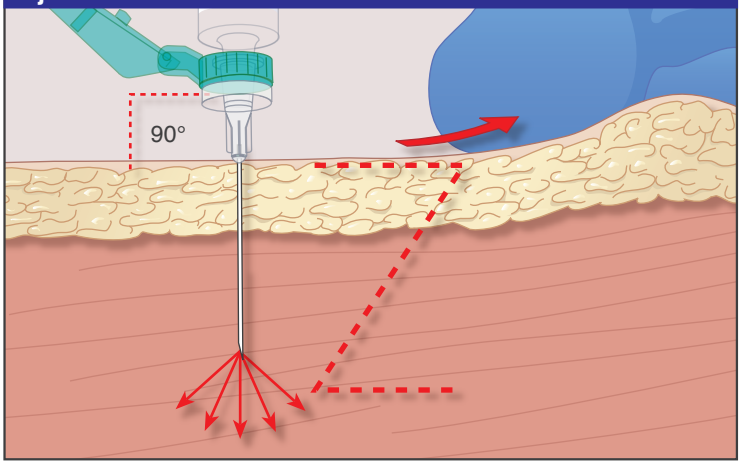
Using a darting motion, insert the needle at a 90º angle as this gives optimum opportunity to reach the target muscle. Insert the full length of the needle; do not leave a gap between the skin and the hub (Malkin, 2008).

If injecting at the dorsogluteal site, check for flashback



To 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. If blood appears, the needle has entered a blood vessel. If you were to continue with the injection, it would enter the blood supply, not muscle.

Inject the medicine



Slowly inject the medication (approximately 1 millilitre per 10 seconds) (Boyd, 2013). The medication needs to be injected slowly in order to reduce the pain of the injection, and to allow the muscle fibres to stretch to accommodate the fluid.

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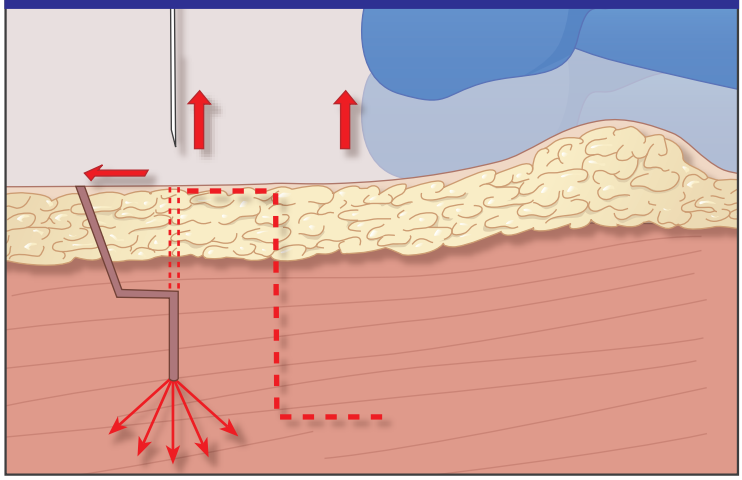
Remove the needle

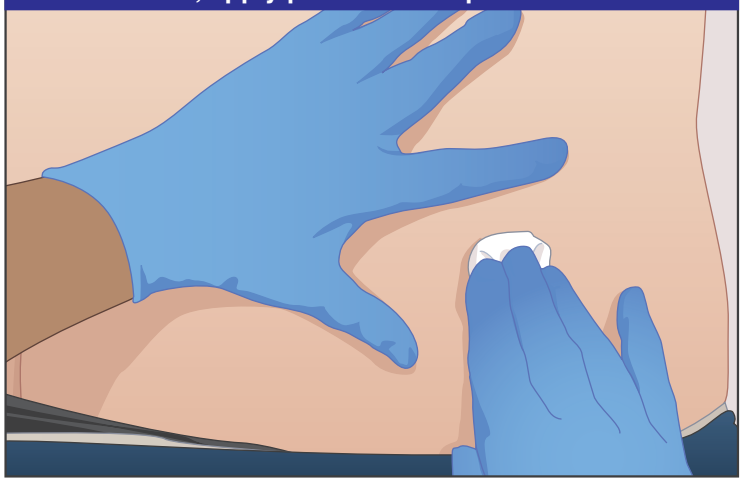


Some authors recommend waiting 10 seconds before removing the needle, to avoid the medication leaking out (see, for example, Boyd (2013)). Follow local policy. Once the needle is out, immediately release the retracted skin, as this allows the medication to disperse evenly.

Dispose of the needle immediately

Activate the safety device on the needle (inset) and immediately dispose of the needle into the sharps bin.

Check the site, apply pressure if required

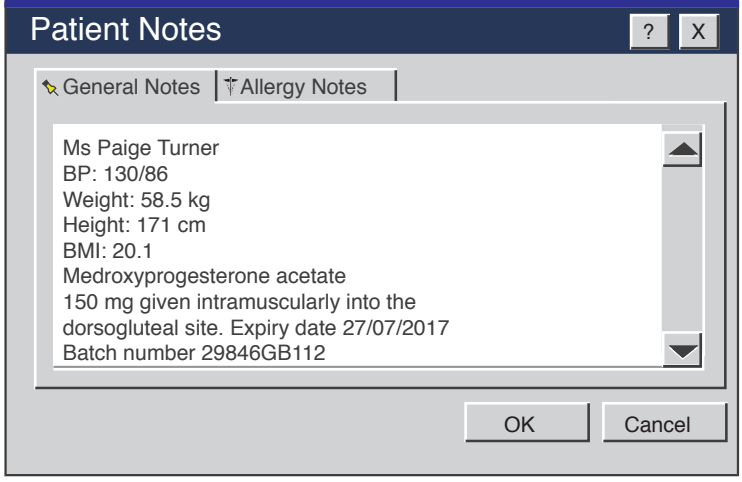


Only apply pressure to the injection site with a dry gauze swab if it is oozing. Assist the patient into a comfortable position and give her privacy while she adjusts her clothing.

Dispose of equipment and wash your hands

Dispose of gloves, apron and other equipment according to local policy. Wash your hands.

Documentation



Document on the medicines administration chart or computer that the medication has been given. Record the batch number, expiry date, injection site and route of injection.

Confirm the next injection date

Advise the patient when her next injection will be due. As this method of contraception does not protect against sexually transmitted infections, offer the patient condoms according to local policy.