

Making a Skin Tent for a Subcutaneous Injection



Disclaimer

A series of booklets has been developed by the Clinical Skills Lab team (staff, recent graduates and students) from the School of Veterinary Sciences, University of Bristol, UK. Please note:

- Each booklet illustrates one way to perform a skill and it is acknowledged that there are often other approaches. Before using the booklets students should check with their university or college whether the approach illustrated is acceptable in their context or whether an alternative method should be used.
- The booklets are made available in good faith and may be subject to changes.
- In using these booklets you must adopt safe working procedures and take your own risk assessments, checked by your university, college etc. The University of Bristol will not be liable for any loss or damage resulting from failure to adhere to such practices.

This work is under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.



© The University of Bristol, 2020



University of
BRISTOL

Year Group: BVSc1 +



University of
BRISTOL

Equipment list:

Making a Skin Tent for a Subcutaneous Injection

Equipment for this station:

- Capped needle and syringe
- Model dog (with neck scruff adaptation)

Considerations for this station:

- In the real dog, an assistant may be needed to restrain the dog in a safe way for this procedure.
- Please do not inject fluid into this model, it will become very wet! If you wish to practise injecting into the subcutaneous space, please use the booklet 'CSL_D11 Administering Subcutaneous Injections' and station.

Anyone working in the Clinical Skills Lab must read the 'CSL_I01 Induction' and agree to abide by the 'CSL_I00 House Rules' & 'CSL_I02 Lab Area Rules'

Please inform a member of staff if equipment is damaged or about to run out.

Clinical Skills:

Making a Skin Tent for a Subcutaneous Injection



1

Position yourself so your non-dominant hand is closest to the dog's head, and your dominant hand is closest to the dog's tail.

NB: The model here is positioned for a right-handed individual.



2

Pick up the capped syringe in your dominant hand.

N.B. When practising with the model, the needle cap should remain over the needle (i.e. the cap should not be removed).

To practise injecting into the subcutaneous space, please use the booklet 'CSL_D11 Administering Subcutaneous Injections' and station.



3

The barrel of the syringe should be between your thumb and index finger, with your hand over the syringe. Your third, fourth and fifth fingers can be used to stabilise the syringe.



4

With your non-dominant hand, make a skin tent in the scruff of the neck by grasping the skin between your fingers and thumb. The grip should be firm but not too tight (which could be painful).



5

Lift your hand and the skin up from the animal's neck to form a 'tent' in the skin.



6

The tent creates a triangle shape on the scruff (solid grey in picture above), with a potential space (stippled grey) between the skin and underlying tissue. Aim for the centre of the triangle at approximately 45° to the body surface. This method ensures your fingers are out of the way and the needle is less likely to be pushed all the way through i.e. out the other side of the skin (scruff).



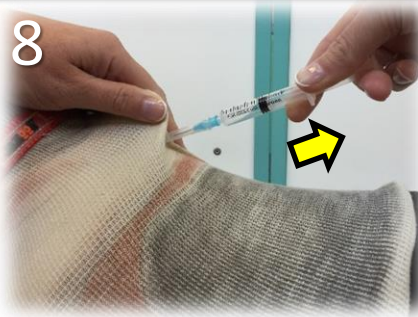
University of
BRISTOL

Clinical Skills:

Making a Skin Tent for a Subcutaneous Injection



7
Practise 'aiming' the needle at the skin tent at a 45° angle. In the live dog, the needle should pass through the skin and into the subcutaneous tissue area, and not out the other side of the skin tent. Always check the needle has not gone right through before injecting, otherwise the contents of the syringe will be deposited onto the animal's fur!



8
Before injecting, always draw back on the syringe plunger. In a live animal resistance will be felt as a vacuum is created. Use your thumb and index finger to support the barrel of the syringe and, depending on the size of the syringe, use one or more of your remaining three fingers to move the syringe plunger backwards (yellow arrow).



9
When drawing back before injecting a live animal:

- If there is a red 'flash', the needle is in a blood vessel.
- If air is drawn back, the needle has either not entered the skin, or has passed right through and out to the other side.

The needle will need to be redirected/repositioned. Do not inject until the needle is in the correct position.



10
Once the needle is in the correct place, reposition your hand so that your index and middle finger are supporting the syringe at the top 'collar' (your hand should be beneath the syringe) and use your thumb to depress the syringe plunger.



11
Alternatively, support the syringe at the top 'collar' of the barrel using your index and middle finger and use the palm of your hand to depress the syringe plunger.



University of
BRISTOL

Resetting the station: Making a Skin Tent for a Subcutaneous Injection

1. Replace the needle and syringe in the storage container provided.

Station ready for the next person:



Please inform a member of staff if equipment is damaged or about to run out.



University of
BRISTOL

I wish I'd known: Making a Skin Tent for a Subcutaneous Injection

- Remember to draw back on the syringe plunger to ensure you are not about to inject into a blood vessel – in a live animal blood will become visible in the syringe as the plunger is drawn back.
- Make sure you are familiar with restraint techniques as it will make this procedure much easier in practice.
- Making the skin 'tent' wide enough will help ensure the needle does not pass all the way through the two layers of skin and out the other side.
- If the needle does pass all the way through the skin tent and out the other side, don't panic! Gently withdraw the needle and try again.