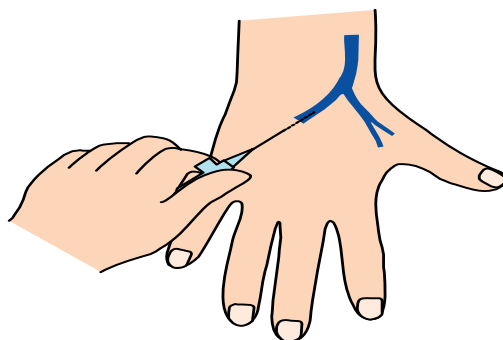


Appendix 3 How to approach a vein (Ref46)

1 Approaching the vein from the top:

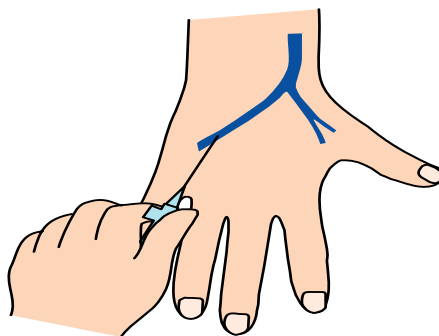
Insert the cannula at a 15-25 degree angle depending on the vein depth. Take care not to insert it too far into the lumen or it may penetrate the back wall.



01.wmf

2 Approaching the vein from the side:

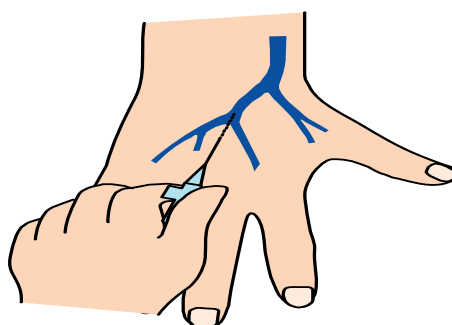
Position the cannula tip adjacent to the vein aimed towards it. This method which is preferred if you have injected a local anaesthetic prevents piercing the vein's back wall.



02.wmf

3 Approaching below a bifurcation:

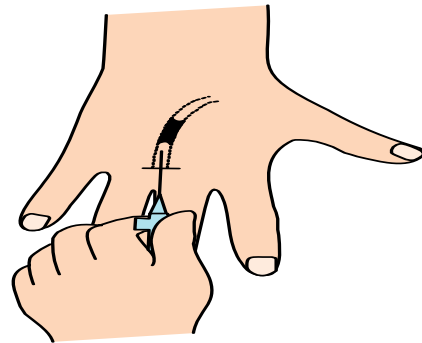
A bifurcated vein looks like an inverted "V". It may be easier to cannulate than a single vein because it is more stable and less likely to roll. Insert the cannula about 1cm below the bifurcation, then tunnel it into the vein at the inverted "V". This approach prevents you from entering the vein at too steep an angle, reducing trauma to the vein wall on insertion. You are also less likely to pierce the vein's opposite wall.



03.wmf

4 Approaching a vein that is palpable but only visible for a short segment:

This technique may help you to cannulate a vein that extends into the deep tissues where you cannot see or feel it. Insert the cannula about 1cm in front of the vein's visible segment, and then tunnel the cannula through the tissue to enter the vein. Tunnelling may reduce trauma to the vein wall on insertion.



04.wmf