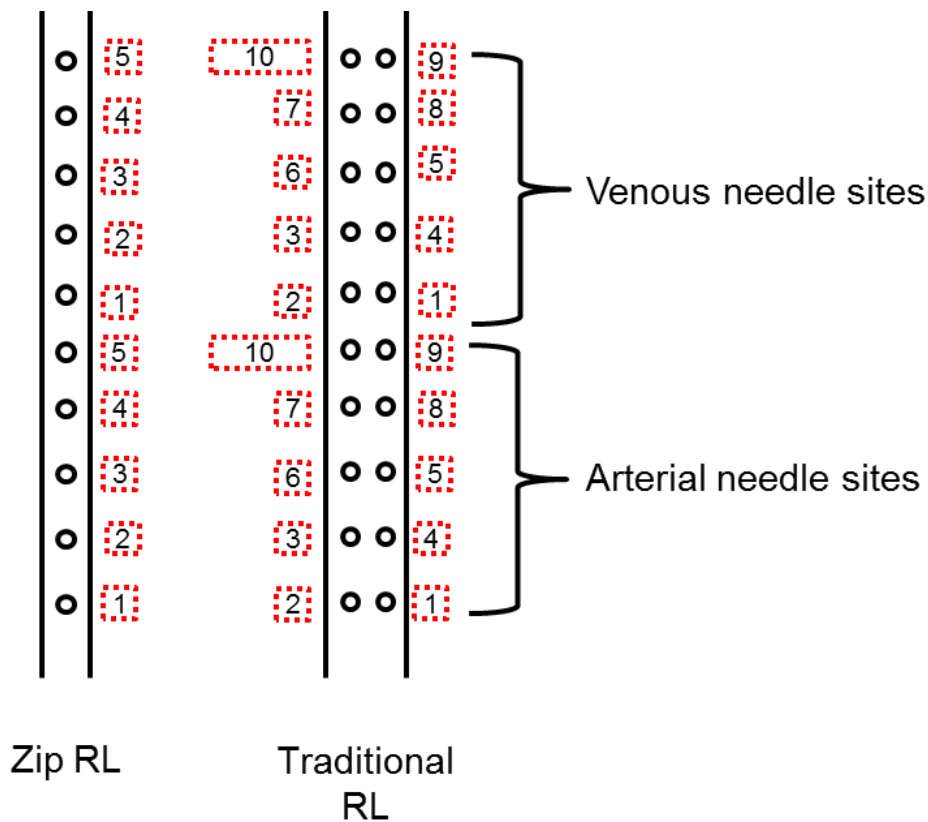


Summary of Definitions of Cannulation Techniques used for Arteriovenous Fistulae and Grafts for Haemodialysis

Rope Ladder (aka Different Site Cannulation)

- Recommended for arteriovenous fistulae (AVF) and grafts (AVG)
- Each cannulation progresses up the vein in a systematic manner
- Each cannulation should be 0.5-1cm above previous cannulation
- Cannulations should cover:
 - On a straight vein / graft, at least an 8cm segment with arterial and venous cannulation sections meeting in the middle of the vein / graft
 - On a vein / graft with a bend, at least a 5cm segment for each cannulation site
- Once you reach the top of the vein / graft, start at the bottom again
- Cannulations on vein / graft of less than 9mm should progress centrally up the vein / graft - known as 'Zip' Rope Ladder
- A vein / graft diameter of 9mm or more may undergo side-to-side (traditional rope ladder) or central cannulation



Buttonhole (aka same site / constant site cannulation)

- Recommended for AVF
- Cannulate each cannulation site on the vein in exactly the same manner during each cannulation i.e entering the skin and vein at the same point, using the same angle, depth and direction of cannulation
- The scab needs to be removed prior to cannulation
- The track development phase develops a collagen track using sharp needles
- Once the track is developed, blunt (dull) needles should be used for cannulation
- Can involve more than 2 cannulation sites, with 3-4 developed cannulation sites on one AVF

Area Puncture (aka cluster)

- Not recommended
- Occurs when the conditions for rope ladder or buttonhole are not met
- Uses a different cannulation site each time over a smaller area than specified by rope ladder
 - Arterial and venous cannulation sites covering less than 8cm segment
 - One cannulation site (arterial or venous) covering less than 5cm segment
- Cannulation often does not progress up the vein in a systematic manner