

CLAIMS

1. A vascular access device, comprising:

a housing comprising a proximal end, a distal end, and a slot extending longitudinally between the proximal end and the distal end;

a catheter assembly, comprising:

a catheter hub; and

a catheter extending distally from the catheter hub, wherein the catheter and the catheter hub are disposed within the housing; and

a needle assembly comprising a needle hub having a translation feature and an introducer needle having a sharp distal tip, wherein the introducer needle extends distally from the needle hub through the catheter, wherein the translation feature is moveable along the slot to translate the needle hub between the proximal end of the housing and the distal end of the housing.

2. The vascular access device of claim 1, wherein in response to moving the translation feature from a proximal end of the slot to a distal end of the slot, the catheter hub extends beyond the distal end of the housing.

3. The vascular access device of claim 1, wherein in response to moving the translation feature from the proximal end of the slot to the distal end of the slot, the needle hub is maintained within the housing.

4. The vascular access device of claim 1, further comprising an adapter coupled to the needle hub, the adapter comprising a distal end, a proximal end, and a compressed tube

therebetween, wherein the proximal end of the adapter is coupled to the needle hub such that the compressed tube expands in response to the needle hub being retracted in a proximal direction within the housing.

5. The vascular access device of claim 4, wherein a distal end of the adapter comprises a luer connector.

6. The vascular access device of claim 1, wherein the translation feature comprises a tab coupled to the needle hub and extending through the slot.

7. The vascular access device of claim 1, wherein the housing comprises an elongate barrel.

8. The vascular access device of claim 1, further comprising a removable barrier coupled to the distal end of the housing.

9. The vascular access device of claim 8, wherein the removable barrier comprises a peel foil.

10. The vascular access device of claim 1, wherein the translation feature is configured to move along the slot in a distal direction to advance the introducer needle and may be configured to move along the slot in a proximal direction to retract the introducer needle.

11. The vascular access device of claim 4, wherein the housing further comprises a lock mechanism configured to selectively secure the adapter in position relative to the housing.

12. The vascular access device of claim 11, wherein at least a portion of the lock mechanism is disposed at the distal end of the housing.

13. The vascular access device of claim 1, further comprising a vent plug disposed within the needle hub, wherein the vent plug is configured to allow air to exit the needle hub.

14. The vascular access device of claim 4, wherein the adapter further comprises a catheter hub lock to secure a position of the catheter hub relative to the adapter.

~~15. A method for advancing and shielding a needle, comprising:~~

~~advancing a translation feature distally along a vascular access device to advance a catheter into a vasculature of a patient, the vascular access device comprising:~~

~~a housing comprising a proximal end, a distal end, and a slot extending longitudinally between the proximal end and the distal end;~~

~~a catheter assembly comprising a catheter hub and the catheter extending distally therefrom, wherein at least a portion of the catheter assembly is disposed within the housing;~~

~~and~~

~~a needle assembly comprising a needle hub, an introducer needle extending distally from the needle hub through the catheter, and a translation feature coupled to the needle hub and configured to move longitudinally along the slot to translate the needle hub within the housing, wherein the introducer needle and the catheter are configured to advance beyond the distal end of the housing in response to the translation feature moving distally along the slot.~~

~~16. The method of claim 15, wherein the vascular access device further comprises an adapter coupled to the needle hub, the adapter comprising a distal end, a proximal end, and a compressed tube therebetween.~~

~~17. The method of claim 16, further comprising securing a position of a distal end of the adapter relative to the distal end of the housing in response to the translation feature being disposed proximate to the distal end of the slot.~~

~~18. The method of claim 17, further comprising retracting the translation feature in a proximal direction along the slot to retract the needle hub within the housing.~~

~~19. The method of claim 18, further comprising expanding a length of the compressed tube within the housing in response to retracting the translation feature.~~

~~20. The method of claim 19, further comprising shielding the introducer needle within the compressed tube in response to retracting the translation feature along the slot.~~