

CLAIMS

1. A vascular access device, comprising:
a housing, comprising a proximal end, a distal end, a slot, and an advancement tab configured to move linearly along the slot between a retracted position and an advanced position;
and
an instrument disposed within the housing, the instrument comprising a proximal end and a distal tip, wherein the proximal end of the instrument is coupled to the advancement tab, wherein in response to movement of the advancement tab from the retracted position to the advanced position, the distal tip of the instrument is advanced beyond the distal end of the housing.
2. The vascular access device of claim 1, wherein the instrument comprises a guidewire, a catheter, or a probe.
3. The vascular access device of claim 1, wherein the housing is substantially rigid.
4. The vascular access device of claim 1, wherein the distal end of the housing comprises a coupler element to couple to a catheter assembly.
5. The vascular access device of claim 4, wherein the coupler element comprises a luer adapter.
6. The vascular access device of claim 4, wherein the coupler element comprises a cannula and a plurality of lever lock arms configured to couple to a catheter assembly.
7. The vascular access device of claim 4, further comprising a lock element disposed within the housing to lock the coupler element to prevent disengagement of the catheter assembly from the housing in response to the advancement tab being moved in a distal direction beyond the retracted position.

8. The vascular access device of claim 7, wherein the lock element comprises a biasing element or a cam element to automatically lock the coupler element in response to the advancement tab being moved in a distal direction beyond the retracted position.

9. The vascular access device of claim 7, wherein the coupler element comprises a cannula and a plurality of lever lock arms configured to couple to a catheter assembly, and wherein in response to the instrument being in the advanced position, the lock element is disposed between the housing and the plurality of lever lock arms to prevent depression of the plurality of lever lock arms to release the catheter assembly from the housing.

10. The vascular access device of claim 1, further comprising:

a T-adapter or a Y-adapter coupled to the distal end of the housing to couple to a catheter assembly; and

an extension tube extending from the T-adapter or the Y-adapter, wherein a blood collection pathway extends through the extension tube, and wherein the instrument comprises a guidewire.

11. The vascular access device of claim 1, further comprising an extension tube extending from the housing between the distal end of the housing and a distal end of the slot, wherein a blood collection pathway extends through the extension tube, and wherein the instrument comprises a guidewire.

12. The vascular access device of claim 1, further comprising an extension tube extending from the housing between the proximal end of the housing and a proximal end of the slot, wherein a blood collection pathway extends through the extension tube, and wherein the instrument comprises a guidewire.

13. The vascular access device of claim 1, further comprising a stop feature to automatically maintain a position of the advancement tab relative to the slot.

14. The vascular access device of claim 13, wherein the stop feature is coupled to the advancement tab and interacts with a feature of the housing to obstruct linear movement of the instrument between the retracted position and the advanced position.

15. The vascular access device of claim 13, wherein the stop feature is coupled to the housing and interacts with the advancement tab to obstruct linear movement of the instrument between the retracted position and the advanced position.

16. The vascular access device of claim 1, further comprising a fluid seal disposed within the distal end of the housing to maintain a closed fluid path.

17. A method, comprising:

coupling a vascular access device to a catheter assembly, the catheter assembly comprising a catheter adapter including a proximal end, a distal end, and a catheter extending from the distal end, wherein the vascular access device comprises:

a housing, comprising a proximal end, a distal end, a slot, and an advancement tab configured to move linearly along the slot between a retracted position and an advanced position; and

an instrument disposed within the housing, the instrument comprising a proximal end and a distal tip, wherein the proximal end of the instrument is coupled to the advancement tab, wherein in response to movement of the advancement tab from the retracted position to the advanced position, the distal tip of the instrument is advanced beyond the distal end of the housing;

wherein coupling the vascular access device to the catheter assembly comprises coupling the housing to the catheter assembly; and

moving the advancement tab linearly along the slot from the retracted position to the advanced position, wherein in response to the advancement tab moving to the advanced position, the distal tip of the instrument extends beyond the distal end of the housing.

18. The method of claim 17, further comprising actuating a lock element to secure the vascular access device to the catheter assembly in response to the advancement tab moving in a distal direction beyond the retracted position.

19. The method of claim 17, wherein moving the advancement tab comprises automatically maintaining a position of the advancement tab relative to the slot.

20. The method of claim 19, wherein moving the advancement tab comprises applying a force to the advancement tab to release the position.