CLAIMS

1. An extension set comprising:

a distal connector;

an extension tube coupled to the distal connector, a fluid pathway being formed through the distal connector and the extension tube;

a probe having a proximal end and a distal end; and

a handle that slides along the extension tube to cause the distal end of the probe to be extended distally from the distal connector.

2. The extension set of claim 1, wherein the proximal end of the probe is positioned at the distal connector and the probe is routed through the handle.

3. The extension set of claim 1, further comprising:

a sleeve that extends between the distal connector and the handle, the probe being contained within the sleeve.

4. The extension set of claim 3, further comprising:

one or more rails positioned within the sleeve, the one or more rails extending proximally from the distal connector.

5. The extension set of claim 3, wherein the sleeve compresses as the handle slides towards the distal connector.

6. The extension set of claim 1, wherein the handle surrounds the extension tube.

7. The extension set of claim 1, further comprising:

a proximal connector that is coupled to the extension tube opposite the distal connector, the fluid pathway extending through the proximal connector.

8. The extension set of claim 1, further comprising:

an integrated device that is coupled to the extension set opposite the distal connector, the fluid pathway extending into the integrated device.

9. The extension set of claim 8, wherein the integrated device is a vacuum tube receiver.

10. The extension set of claim 1, wherein the probe includes a fluid permeable distal portion.

11. The extension set of claim 10, wherein fluid permeable distal portion comprises a coil surrounding the probe.

12. The extension set of claim 11, wherein the coil has a distal portion that extends distally beyond the distal end of the probe.

13. The extension set of claim 1, wherein the distal end of the probe comprises a sensor.

14. The extension set of claim 1, wherein the distal connector includes one or more seals, the probe extending through the one or more seals.

15. The extension set of claim 14, wherein the one or more seals comprise a primary seal and a secondary seal positioned proximal to the primary seal, the secondary seal having a distally-facing pocket.

16. An extension set comprising:

a distal connector;

a proximal connector;

an extension tube extending between the distal connector and the proximal connector, a fluid pathway being formed through the distal connector, the extension tube and the proximal connector;

a handle that is positioned between the distal connector and the proximal connector, the handle being configured to slide along the extension tube;

a sleeve that extends between the distal connector and the handle; and

a probe that is interfaced with the handle such that a distal end of the probe is extended distally from the distal connector when the handle slides towards the distal connector.

17. The extension set of claim 16, wherein the probe comprises a proximal end that is positioned at the distal connector and is routed through the handle.

18. The extension set of claim 17, wherein the sleeve surrounds the extension tube and a portion of the probe that is positioned between the distal connector and the handle.

19. The extension set of claim 16, wherein the probe includes a coil that forms a fluid permeable distal portion of the probe.

20. A method for collecting blood comprising:

attaching an extension set to a vascular access device that is inserted into a patient's vasculature, the extension set comprising:

a distal connector by which the extension set is attached to the vascular access device;

an extension tube coupled to the distal connector;

a vacuum tube receiver coupled to the extension tube opposite the distal connector, a fluid pathway being formed through the distal connector, the extension tube and the vacuum tube receiver;

a probe having a proximal end and a distal end; and

a handle that slides along the extension tube to cause the distal end of the probe to be extended distally from the distal connector;

inserting a vacuum tube into the vacuum tube receiver; and

moving the handle towards the distal connector to cause the distal end of the probe to be extended through the vascular access device and into the patient's vasculature thereby removing an occlusion that is preventing blood from flowing through the fluid pathway into the vacuum tube.