CLAIMS

What is claimed is:

1. A catheter assembly for accessing a vasculature of a patient, comprising:

an elongate catheter body extending from a proximal end to a distal end, and defining a first lumen, the catheter body comprising:

a central venous catheter ("CVC") portion, including a needle access aperture disposed through a side wall thereof;

a transition portion; and

a peripheral intravenous ("PIV") portion, defining a PIV lumen portion of the first lumen; and

a catheter hub coupled to the proximal end of the catheter body;

a peripheral intravenous ("PIV") hub, defining a PIV hub lumen;

a needle, defining a needle lumen, and a needle hub coupled to a proximal end thereof, the needle extending through the PIV hub lumen, the needle access aperture, and the PIV lumen portion to a point distal of the distal end of the elongate body; and

a guidewire disposed in a proximal portion of the first lumen.

2. The catheter assembly according to claim 1, wherein the guidewire includes a guidewire hub permanently attached to a proximal end thereof and configured to prevent the proximal end of the guidewire from advancing distally into the first lumen.

3. The catheter assembly according to either claim 1 or 2, further including a syringe coupled to the needle hub and in fluid communication with the needle lumen, the syringe creating a vacuum to draw a blood flow through the needle lumen and confirm vascular access.

4. The catheter assembly according to any claim of claims 1-3, wherein the PIV hub includes a clip to couple the PIV hub to the catheter body.

5. The catheter assembly according to any claim of claims 1-4, wherein the PIV hub is configured to align a tip of the needle with the distal end of the catheter body such that a bevel of the needle is distal to the distal end of the catheter body.

6. The catheter assembly according to any claim of claims 1-5, wherein the PIV hub includes an anti-rotation feature that orients a bevel of the needle in a predetermined position.

7. The catheter assembly according to claim 6, wherein the anti-rotation feature includes a slot disposed in the PIV hub and a rib disposed on the needle hub, the rib and the slot oriented so that the PIV hub and the needle hub only fully engage when the bevel is oriented in an upward position.

8. The catheter assembly according to any claim of claims 1-7, wherein the catheter hub includes an extension leg extending proximally from a proximal end thereof, the extension leg defining an extension leg lumen in fluid communication with the first lumen, the extension leg including a connector at a proximal end thereof.

9. The catheter assembly according to any claim of claims 1-8, wherein the needle access aperture includes a slit valve that closes the needle access aperture when the needle is removed therefrom.

10. The catheter assembly according to any claim of claims 1-9, wherein the catheter body further includes a second lumen extending from the catheter hub to an outlet aperture disposed through the side wall of the CVC portion proximate a distal end thereof.

11. The catheter assembly according to claim 10, wherein the catheter hub includes a second extension leg defining a second extension leg lumen that is in fluid communication with the second lumen of the catheter body.

12. The catheter assembly according to any claim of claims 1-11, wherein the PIV portion defines a first diameter and the CVC portion defines a second diameter, the first diameter being less than the second diameter.

13. The catheter assembly according to claim 12, wherein the transition portion includes a tapered outer surface extending from the first diameter to the second diameter.

14. The catheter assembly according to any claim of claims 1-13, wherein the PIV portion includes a tip, the tip defining a tapered outer profile and defining an inner lumen diameter, the inner lumen diameter being less than an outer diameter of a shaft of the needle.