CLAIMS

1. An apparatus for printing a vein map onto a patient's skin comprising:

a probe body;

an ultrasonic transducer configured to identify a location of a target vein beneath the patient's skin via ultrasound; and

a print head coupled to the ultrasonic transducer and configured to:

receive the location; and

using the location, print the vein map onto the patient's skin above the location such that the vein map indicates the location of the target vein within the patient,

wherein the ultrasonic transducer and the print head are removably coupled to the probe body, the print head being immediately adjacent and distal to the ultrasonic transducer.

2. The apparatus of claim 1, wherein the vein map comprises a two-dimensional vein map that indicates:

the location of the target vein within the patient below the vein map; and

a width of the target vein.

3. The apparatus of claim 1, wherein the vein map comprises a three-dimensional vein map that indicates:

the location of the target vein within the patient below the vein map;

a width of the target vein; and

a depth of the target vein within the patient.

4. The apparatus of claim 3, wherein the three-dimensional vein map comprises one or more colors that indicate one or more depths of the target vein within the patient.

5. The apparatus of claim 3, wherein the three-dimensional vein map comprises one or more patterns that indicate one or more depths of the target vein within the patient.

6. The apparatus of claim 1, wherein the vein map comprises an antimicrobial ink printed onto the patient’s skin.

7. The apparatus of claim 1, wherein the vein map further indicates a second location for a second target vein beneath the patient’s skin.