The AccuVein AV300

Laurie Roberts – University of Rhode Island - Biomedical Engineering

Venipuncture, the process of obtaining intravenous access for the purpose or intravenous therapy or obtaining a sample of venous blood, is the most common invasive medical procedure. More than 2.7 million patients undergo venipuncture per day in the US alone. Since accessing veins may be difficult in patients and can take up to 10 minutes and require multiple needle sticks, venipuncture has proven to be a main source of patient anxiety and discomfort.

AccuVein has launched its first portable, non-contact vein illumination device, the AV300. The AV300 enables healthcare professionals to see a vein map on the skin and can help reduce the need to multiple needle sticks resulting in the improvement of patient care and the time



needed to access veins.

The AV300 is as simple to use as pointing the device at an area of the skin and clicking to see the veins beneath. It detects and highlights hemoglobin by scanning up to 8mm below the skin's surface to detect the peripheral nerves needed for venipuncture and projects a pattern of light on the patient's skin to reveal the vein's position.

The AV300 Vein viewing system consists of the AV300 unit and battery, a charging cradle kit and universal power supply and multinational adapters. The viewing system has many benefits: It doesn't require pre-use calibration, it's easy to learn how to use. It weighs 10oz. and has a hands free option. The system doesn't have to be sterilized after every use as there is no patient contact. It works in the light or in the dark and is built to withstand real world use. Additionally, it is movement tolerant can shows the veins in real time.

Currently, St. Jude Children's Research Hospital is conducting a study to show the success rate of cannulation between the accuvein apparatus and the standard technique. Some of the aspects they'll be comparing involve the speed of intravenous access and the number of skin punctures. Results will be available later this year.

Sources:

- www.accuvein.com
- http://www.coolestgadgets.com/20090525/accuveinav300-helps-nurses-difficult-spot/
- http://clinicaltrials.gov/ct2/show/NCT 01042613
- http://www.medicalnewstoday.com/articles/150837.php