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INFUSION. CLEARLY DOCUMENTED.

Clinical Fact Sheet

Intravenous (IV) access is the most common invasive medical procedure today. Whether having blood drawn for laboratory analysis or requiring placement of an IV catheter for infusing fluids and/or drugs, every patient admitted to a hospital or surgery center experiences "venipuncture" - the use of a needle to puncture a vein and establish access to the venous system. While most everyone has had personal experience with venipuncture, many can relate to the pain and discomfort caused when repeated efforts are needed to locate and access a vein with the needle because studies show that 40% of adult IV starts and 60% of pediatric IV starts require multiple attempts.

The breakthrough Evena Medical imaging platforms led by the patented ***Eyes-On™ Glasses***, the Owl and DeepVu apps based ultrasound imaging systems are designed to solve this chronic, costly problem. Evena Medical is the only company in the world to design and develop a Dual Modality system of light and sound technology on one simple to use platform. Dual Modality provides real-time, high definition, anatomically accurate vascular imaging system that finally brings the IV access procedure into the 21st century. Now, medical personnel have an easy way to "see through" the patient's skin to the vasculature beneath, enabling fast, accurate and precise venous access, and dramatically reducing the need for multiple sticks.

Below are a few facts which help to underscore the clinical need for Evena's Dual Modality imaging technology led by the patented Eyes On Glasses:

- ✓ There are roughly ***1 billion venipunctures*** for drawing blood and initiating IV therapy annually in the US[I].
- ✓ In the hospital, virtually all patients receive IVs for both drawing blood for laboratory analysis, and for administering fluids and/or drugs. It has been estimated that ***up to 60% of children and 40% of adults require multiple attempts*** to access a vein[II],[III].
- ✓ In challenging clinical environments such as pediatric emergency medicine, neonatal intensive care units, pre-hospital care and emergency/trauma departments, ***venipuncture failure rates can be even higher.***
- ✓ Multiple attempts to access a vein not only waste valuable nursing and physician time but also delays blood from being obtained for diagnostic evaluation with resulting delays in providing therapy. Beginning in 2013 there is an increased cost to the hospital for this inefficiency in the form of enormous ***patient dissatisfaction scores***. Patient satisfaction is an important metric for hospitals under the Affordable Care Act – Medicare payments will be withheld from hospitals with unacceptably low levels of patient satisfaction. One study of over 1.8 million patients in 1,000 hospitals found that 58% of patients were dissatisfied with the venipuncture skills of medical staff [IV]. Only hospital food ranked more disagreeable to patients then nursing IV access skills.

Evena Technology Advantage

While there are a number of available light and ultrasound technologies for vein imaging, Evena's Dual Modality platform of multispectral light and apps based ultrasound is the only system that provides both on an assortment of easy to learn and use medical devices. Whether it is the Eyes On Glasses, the Owl or DeepVu ultrasound, Evena technology displays anatomically accurate vascular images every time and every where while simultaneously interfacing with existing electric medical record systems (EMR).

[I] American College of Pathologists, 2010

[II] Frey A, Success rates for peripheral IV insertion in children. *Journal of Intravenous Nursing*, v. 21, #3, May/June 1998

[III] Peripheral IV access procedures are problematic for nursing. Peripheral IV Success rates in adults & children: Harris M. Internal Study 2004; Division of Emergency Medicine, Loma Linda University Medical Center, Loma Linda, CA

[IV] Press Ganey Satisfaction Survey, 2006