

## VeinViewer® by Christie Data Trial: Jefferson Memorial Hospital

### THE HIGHLIGHTS:

#### Introduction

- Vascular access is frequently required in hospitalized adults for a number of different clinical indications.
- Difficult Venous Access (DVA) is a common clinical condition that plagues many adults.
- Multiple attempts and subsequent delays in treatment are common when attempting to gain access in DVA patients.

#### Purpose of the Data Trial

- To compare the average number of attempts, first-stick success rate, average time required to obtain venous access and the average patient satisfaction ratings in both the traditional method and the VeinViewer® assisted method of obtaining venous access in adults.

#### Outcome Measures

- Number of attempts, first attempt success rate, time to access and patient satisfaction.

#### Results

Jefferson Memorial Data Trial	Traditional Method	VeinViewer Assisted Method
n=	32	32
Mean Number of Attempts Per I.V./PICC Insertion	2.00	1.13
1st Attempt Success Rate	28%	88%
Mean Time Per I.V./PICC (minutes)	15.09	4.75
Patient Satisfaction Scores*	1.89	4.19

#### Conclusion

The results when using the VeinViewer Assisted Method are as follows:

- A decrease of nearly 1 attempt per I.V.
- An increase of 60% in 1st attempt success.
- An average of over 10 minutes saved per I.V. insertion.
- A two-fold increase in patient satisfaction.

### IN SUMMARY:

Patients who have difficult venous access (DVA) are a major challenge for modern medical care. DVA is a clinical condition that is yet to be properly defined yet plagues patients of all ages, body types and skin colors. Struggling to gain access in this population of patients is especially difficult for patients due to the pain involved in the procedure; however, healthcare practitioners are also frustrated daily as they struggle to gain venous access.

A large portion of the DVA population is the adult segment. There are many factors that contribute to DVA in adults. Dehydration, prior traumatic venipuncture, or small vessels can lead to a reduction or even absence of visible or palpable veins. Unfortunately, these are the patients that due to recurrent health problems, are in the hospital and require repeated venous access for treatment.

VeinViewer by Christie Medical Holdings is the first and only device that harnesses near-infrared light and other technologies to project the image of one's vasculature on the surface of the skin in the same anatomical location of the vasculature; all of this in real-time. VeinViewer was utilized in a 2-week prospective analysis of adult patients at Jefferson Memorial Hospital in Crystal City, Missouri. The traditional method of acquiring intravenous access was compared to the VeinViewer assisted method.

The traditional method for obtaining peripheral venous access demonstrated a 28% 1st stick success rate with an average number of attempts per I.V. of 2.00. The average time required to obtain venous access utilizing the traditional method was just over 15 minutes. For the VeinViewer assisted method, the 1st attempt success rate was 88% with an average number of attempts per I.V. insertion of 1.13. The average time to access a vein via the VeinViewer assisted method was 4 minutes, 45 seconds.

The traditional method resulted in an average patient satisfaction score of 1.89 and the VeinViewer assisted method resulted in an average score of 4.19. These ratings were based on a 5-point scale (detailed below) in which patients were surveyed.

VeinViewer assisted in demonstrating a positive difference in average number of attempts, average time needed for venous access, and 1st attempt success rate. Additionally, VeinViewer appears to have assisted in providing a sizeable boost in patient satisfaction scores. The Jefferson Memorial Hospital data trial has shown that VeinViewer may be extremely beneficial to adult patients in a healthcare setting.