

## VeinViewer® by Christie Data Trial: SSM Cardinal Glennon Childrens Medical Center

### THE HIGHLIGHTS:

#### Introduction

- Vascular access is frequently required in hospitalized children and infants for a number of different clinical indications.
- Obtaining vascular access in pediatric patients can be a major challenge to clinicians.
- Multiple attempts and subsequent delays in treatment are common when attempting to gain venous access in these 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 VeinViewer assisted method of obtaining venous access in children.

#### Outcome Measures

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

#### Results

Cardinal Glennon Data Trial	Traditional Method	VeinViewer Assisted Method
n =	48	40
Mean Number of Attempts Per I.V.	2.08	1.18
1st Attempt Success Rate	31%	83%
Mean Time Per I.V. (minutes)	17.06	6.60
Patient Satisfaction Score*	1.85	4.07

#### Conclusion

- VeinViewer demonstrated:
  - A 50% decrease attempts per IV.
  - A more than 100% increase in 1st attempt success.
  - A greater than 50% reduction in time to start an IV.
  - A greater than two-fold increase in patient satisfaction scores.

### IN SUMMARY:

Obtaining peripheral venous access in children can be extremely difficult, time consuming, and a frustrating endeavor for healthcare practitioners. Venipuncture in children has often been described as a great source of pain and anxiety for patients, specifically in children. As a result, the added difficulty often experienced with pediatric patients can make the procedure that much more frustrating for both the patient and the practitioner.

Today, there are technologic improvements in equipment design, venipuncture procedure and imaging techniques that have significantly facilitated successful venous access and enhanced the various options for acquiring vascular access. VeinViewer is an innovative near-infrared technology that provides a vascular "road-map" directly on a patient's skin to help guide the clinician in gaining peripheral venous access. The SSM Cardinal Glennon Childrens Medical Center data trial was performed to evaluate the effectiveness of VeinViewer in assisting the process of obtaining said venous access as compared to the traditional method.

The data trial was a prospective analysis of pediatric patients requiring vascular access throughout the entire facility. The results of the data trial were truly significant.

The traditional method for obtaining venous access demonstrated a 31% 1st attempt success rate and an average number of attempts per IV of 2.08. The average time required to obtain venous access utilizing the traditional method was 17.06 minutes. For the VeinViewer method, the 1st attempt success rate was 83% with an average number of attempts per IV of 1.18. The average time to successful venous access via the VeinViewer method was 6.60 minutes. The patient satisfaction scores were based on a scale of 1-5.\* The traditional method resulted in an average patient satisfaction score of 1.85, while the VeinViewer method resulted in an average score of 4.07.

VeinViewer very clearly demonstrated enhancements in average number of attempts, average time needed for venous access and 1st attempt success rates. Moreover, these improvements seem to have led to the increase in patient satisfaction. The SSM Cardinal Glennon Childrens Medical Center data trial has demonstrated once again that VeinViewer is an extremely beneficial tool in healthcare today.

\*1 - very unsatisfied; 2 - unsatisfied; 3 - neutral; 4 - satisfied; 5 - very satisfied