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**The Impact that VeinViewer<sup>®</sup> Vision Made  
on Patient Satisfaction,  
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### Introduction

Medical institutions looking for ways to improve patient care or satisfaction rates often assess new, innovative technologies. Improving a patient’s satisfaction of care could be a result of the patient experiencing less pain, feeling better faster, or a better overall experience with the clinician.

Franciscan St. James Health Hospital, in Chicago Heights, IL was looking for a way to increase their successful peripheral intravascular insertions (PIV). They believed their higher PIV stick rates were leading to general patient dissatisfaction and, more clinically relevant, the placement of unnecessary peripheral inserted central catheter (PICC) lines, or triple lumen central catheters. Their central line associated blood stream infection (CLABSI) rate, which is known to be dangerous for patients, had risen in their hospital. When looking at cost revenue, treatment of these infections is not covered by insurance or Medicare.<sup>1</sup> As a facility open to hiring new nurses, their clinicians often have no or limited experience placing PIVs. The question was how to build confidence in their skills. Their inexperience often resulted in more experienced nurses being called in to help start IVs, delaying therapy, using multiple PIV supplies, upsetting the patient, and increasing man hours.

With all of these challenges surrounding PIV placement, the hospital decided to move forward with acquiring a new, innovative technology that could address some of the challenges and support the value based purchasing initiative at the institution. Multiple devices had been evaluated at the facility and offered a solution to improve patient care in regards to PIV starts. In the end, Franciscan St. James Health Hospital purchased five near-infrared vascular imaging devices called VeinViewer® Vision manufactured by Christie Medical Holdings, Inc. (Memphis, TN).

### Device Description

VeinViewer® Vision is designed to improve vascular access treatment standards and provide the highest possible quality in patient care. The device is a non-invasive electronic visual aid device designed to project an image of superficial, subcutaneous vascular structures on the surface of the skin. VeinViewer’s primary purpose is to assist in vascular visualization for IV starts and blood draws. Being the first and only device to use harmless near-infrared light and patented technologies to



project a digital image of patient vasculature directly onto the surface of the skin in real time, VeinViewer Vision provides a venous "road map" to complement the clinician's tactile techniques for peripheral IV insertion and blood draws. VeinViewer Vision is a portable device that can be easily wheeled to various treatment areas throughout a facility. The head is mounted on a 6-axis joint and a articulating arm allowing for optimal positioning over the IV insertion area. The head and arm remain stationary once positioned enabling Eyes On Patient™ hands-free utilization during the venipuncture procedure.

### **VeinViewer's Impact on Patient Satisfaction**

VeinViewer Vision® was promptly incorporated into the medical/surgical (2500) unit's standard procedure for helping to assess and access veins. Hospital staff thought patients would have a more welcoming experience and tried to ease the patients' concerns about the IV start experience by personalizing the technology. Seeing the Christie Medical Holdings logo on the base of the device, they renamed the Vision units "Christie". When the nurses recognized that they were dealing with a difficult venous access patient, they let the patient know that they were going to bring in their friend, "Christie", to help with finding the veins. Realizing how effective "Christie" was the staff was encouraged to use it for every vascular access attempt. "Christie" is now housed on multiple units so it could be shared with the surrounding units more easily. "Christie" is found in the areas of higher acuity and larger patient volume.

For their first effectiveness check of the device, the medical/surgical unit referred to their Press Ganey scores, a customer service tracking system for hospitals. Press Ganey surveys are completed by approximately 35% of the patients that stay in the facility. Within the survey, there is a section asking the patient to rate the skill of the nurses starting the IV. Prior to bringing in VeinViewer, the unit's Press Ganey patient satisfaction score related to IV starts was typically in the low 30<sup>th</sup> percentile. After one month of use, the score more than doubled raising to 93%. Since then, the facility has recorded scores as high as 98%, and continues to average in the 90<sup>th</sup> percentile.

The hospital units have had the devices for over 7 months as of the publication of this paper, and "Christie" is used on approximately 25% of all patients. Ashley Leet RN, Med/Surg Unit assistant patient care manager, states "the key to having made the implementation of Christie a success has been to consistently educate and encourage the staff to use her, and point out the positive impact that VeinViewer Vision is having on the patients, based on the scores."

### **Conclusion**

Value based purchasing is now in effect at Franciscan St. James Health Hospital's 476 bed dual-campus facilities in Chicago Heights and Olympia Fields, IL. Reimbursement for quality care every time is how

hospitals will continue to keep their revenue. How a patient is treated and feels their care has been is the quality indicator. Franciscan St. James Health Hospital's utilization of VeinViewer is an excellent example of how better care with innovative technology leads to a more satisfied patient. The VeinViewer technology along with other new initiatives has helped to turn around the patient experience at Franciscan St. James Health Hospital.

1. United States Department of Health & Human Services. (2009 June). ACTION PLAN TO PREVENT HEALTHCARE-ASSOCIATED INFECTIONS. Retrieved 4 August 2011 from the Department of Health & Human Services Website:  
[http://www.hhs.gov/ash/initiatives/hai/actionplan/hhs\\_hai\\_action\\_plan\\_final\\_06222009.pdf](http://www.hhs.gov/ash/initiatives/hai/actionplan/hhs_hai_action_plan_final_06222009.pdf) (62-79).