Background

Vascular access teams (VATs) face significant challenges in gaining vascular access and making catheter selection decisions. Difficult peripheral access is a significant problem that accounts for a growing number of failed IV attempts, even for a skilled VAT. In many cases line escalation occurs due to the need for a longer length catheter to reach deeper vasculature. This can require moving from a standard peripheral IV to a midline or to a PICC. In some cases the line escalation isn’t due to clinical indications of anticipated dwell time or type of therapy but simply due to longer catheter requirements to gain peripheral access.

Project Purpose

In search of alternatives for difficult IV access patients, the VAT at this 400 bed teaching hospital decided to evaluate a novel 2.25” peripheral IV device (PIV) with coiled tip nitinol guidewire. The VAT assumed that the longer catheter length would improve success in gaining deeper peripheral vessel access and reduce the need for line escalation in the absence of other clinical indications.

Objective

• To determine if the 2.25” catheter could dwell until completion of therapy without requiring replacement to a midline or PICC due to early complication.

Project Methods

• 2.25” PIV device catheter placement was tracked when the device was used instead of the standard of care midline or PICC in those patients where line escalation was not clinically required but a longer catheter length was deemed necessary by the VAT to gain deeper peripheral access.
• A retrospective chart review occurred to gather performance data on the 2.25” PIV device in this patient population.
• Timeframe of data collection was from February 1 – March 10, 2015.
• 34 devices were placed meeting this criteria.

Indications for Use: The AccuCath® BC Intravascular Catheter System is inserted into a patient’s vascular system to sample blood, monitor blood pressure, or administer fluids intravenously. This device may be used with consideration given to adequacy of vascular anatomy, appropriateness of the solution being infused, and duration of therapy. The AccuCath® BC is suitable for use with low pressure power injectors having a maximum pressure setting of 300 psi and maximum flow rate of 6 mL/second.
Implications For This Facility

• The 2.25” trial device presents a viable alternative for deeper peripheral access.
• The VAT concluded that further investigation was warranted to determine potential cost savings and efficiency gains.
• Investing time to evaluate innovative technology is a vital part of the VAT role. In this case, one VATs effort impacted a decision to implement the trial device throughout the hospital system’s 11 facilities.

Bard, AccuCath, and AccuTip are registered trademarks of C. R. Bard, Inc. All other trademarks are the property of their respective owners.