

Hospitals Can Save 25 Percent in Component Costs and Significantly Improve Nurse Satisfaction

-November/December Journal of Infusion Nursing Study Finds BD and 3M Products Provide Effective Catheter Stabilization at a Reduced Cost-

Hospitals can now save money without increasing overall IV catheter-related complications that can affect patient comfort and safety, according to research published in the November/December issue of [Journal of Infusion Nursing](#).

A new, randomized, controlled, non-inferiority study involving 302 subjects, funded by BD (Becton, Dickinson and Company) and 3M, found that using the [BD Nexiva™ Closed IV Catheter System](#) with the specially designed [3M™ Tegaderm™ IV Securement Dressing](#), provides effective catheter stabilization at a lower component cost and with a similar rate of securement-related complications (catheter dislodgement, poor adherence, infiltration and leakage) as a traditional IV catheter with an add-on securement device.

The component price of the BD Nexiva Closed IV Catheter System and customized Tegaderm IV Securement Dressing cost 25 percent less than the control catheter/securement device used in the study. This could result in an annual material cost savings of an estimated \$88,000 for the institution. The overall nurse satisfaction with ease of use was found to be significantly higher (56% in the study group compared to 36% in the control group).

“Inadequately secured IV catheters can pose patient safety issues and result in complications as well as higher nursing and material costs. The use of a stabilization device for peripheral catheters is the standard of care for patients that require infusion therapy,” said principal investigator, Dawn Bausone-Gazda, BSN, RN, clinical operations assistant for the venous access device team at Advocate Christ Medical Center, Oak Lawn, Illinois. “I am very excited about the results from this study, and I am confident that this research will help advance the specialty of infusion nursing and also improve patient care.”

“We specifically designed this Tegaderm IV Securement Dressing to meet clinicians’ needs for an effective, comfortable, and easy-to-use alternative to currently available securement devices,” said Paul Keel, president, [3M Skin & Wound Care Division](#). “We are proud to offer a product preferred by nurses that has the potential to significantly reduce hospital costs and improve patient satisfaction.”

“With more than 1.4 billion peripheral IV catheters being placed globally each year, we understand why evidence-based product technology advances in this area are so important to the clinicians caring for these patients, especially in a time where patient safety and fiscal responsibility are top priorities at every level of healthcare,” said John Ledek, vice president, BD Medical – Medical Surgical Systems. “The results of this study align with BD’s commitment to providing high-quality and cost-effective products to our customers.”

Peripheral intravenous (PIV) catheters are used daily in all hospitals for the delivery of fluids, electrolytes, and medication to almost every patient. The [Infusion Nurses Society Standards of Practice](#) recommend manufactured stabilization devices as the preferred method. This randomized controlled trial is the first to compare two different PIV catheter-stabilization systems.

About the Study

The control group (n=152) utilized a commonly used nonwinged safety catheter stabilized with the Bard StatLock® IV Ultra Stabilization Device. The study group (n=150) utilized the BD Nexiva Closed IV Catheter

System with a built-in stabilization platform and a pre-attached extension tube exiting the hub at a 45-degree angle with two split-septum access ports. It was used with the Tegaderm IV Securement Dressing, which was designed specifically as a breathable, transparent, adhesive film dressing with stabilization border and a reinforced force-shifting notch that fits around the 45-degree angle extension tubing.

Each patient participated in the study for up to 96 hours and nurses completed daily assessments of catheter stabilization and patency, performance, skin condition, patient comfort, and any complications (infiltration, leakage, dislodgment or poor adherence). The study group was similar to the control group based on a Cox regression model with an estimated hazard ratio (HR) of 0.74 (90 percent confidence interval; 0.53-1.03). . Overall nurse satisfaction with ease of use of the BD Nexiva Closed IV Catheter System was significantly higher than for the control catheter, and the Tegaderm IV Securement Dressing was reported as significantly easier to apply and remove than the control device.

About BD

BD is a leading global medical technology company that develops, manufactures and sells medical devices, instrument systems and reagents. The Company is dedicated to improving people's health throughout the world. BD is focused on improving drug delivery, enhancing the quality and speed of diagnosing infectious diseases and cancers, and advancing research, discovery and production of new drugs and vaccines. BD's capabilities are instrumental in combating many of the world's most pressing diseases. Founded in 1897 and headquartered in Franklin Lakes, New Jersey, BD employs approximately 29,000 associates in more than 50 countries throughout the world. The Company serves healthcare institutions, life science researchers, clinical laboratories, the pharmaceutical industry and the general public. For more information, please visit www.bd.com.

About 3M Health Care

3M Health Care, one of 3M's six major business segments, provides world-class innovative products and services to help health care professionals improve the practice, delivery and outcome of patient care in medical, oral care, drug delivery, food safety and health information markets. Learn more at [3M Healthcare](http://www.3m.com/healthcare).

About 3M

A recognized leader in research and development, 3M produces thousands of innovative products for dozens of diverse markets. 3M's core strength is applying its more than 40 distinct technology platforms — often in combination — to a wide array of customer needs. With \$23 billion in sales, 3M employs 75,000 people worldwide and has operations in more than 65 countries. For more information, visit www.3m.com or follow @3MNews on Twitter.

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