

NEWS RELEASE

September 30, 2010

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Methodist Site Eliminates Dangerous Catheter Infections, New Study Shows

Intraluminal Protection IV Connector Eliminates Bloodstream Infections for Final 10 Months of Test Period

MEMPHIS, Tenn. – A lengthy study performed at [Methodist Extended Care Hospital](#) resulted in the elimination of potentially deadly infections. The study findings were reported in a scientific poster presentation at the recent annual meeting of the Association for Vascular Access (AVA), a leading national organization focusing on patient safety and best nursing practices.

The Methodist study showed that an “intraluminal protection” IV [needleless connector](#) was dramatically more effective than two other connector designs in preventing central-line-associated bloodstream infections (CLABSIs). This type of connector prevents dangerous microorganisms from collecting in the connector and catheter.

The hospital, a long-term acute care facility, tested three different IV connector designs because research shows that connectors can play a critical role in causing or preventing CLABSIs. The study confirmed that the intraluminal protection design helps to prevent infections. Certain other designs are associated with much higher infection rates.

The three connector types tested in the study were a split septum connector (SS); negative pressure mechanical valve (NPMV); and the intraluminal protection connector (IP).

The IP was the only connector that produced an acceptable rate by today's standards: 0.49/1,000 catheter days, including a zero rate (no infections) for the final 10 months of the test period.



The IP connector is called the InVision-Plus® and is made by [RyMed Technologies](#), of Franklin, Tenn.

“By using a certain connector type, we were able to eliminate these often dangerous infections for 10 months,” said Debra Lynch, R.N., B.S.N, the poster's author and the hospital's Infection Prevention Lead. “This is especially notable given our facility treats the sickest patients with the highest bloodstream infection risk factors. The study shows that selecting the appropriate connector can make a crucial difference, as long as your other catheter care practices are also appropriate.”

All of the patients in the study were elderly and quite ill, with complex medical conditions. Seventy percent of the patients are admitted to the unit with their catheter in place. About 25 percent of the patients come from outside the Methodist Healthcare system. In either case the staff has no control over the practices and devices used in the initial insertion of their central line IV catheter or the care they receive prior to admission. Many of the patients were also receiving total intravenous nutrition (TPN).

All of these factors make patients more prone to CLABSIs.

The Methodist study is significant for several other reasons:

- The vital role of IV connectors in preventing CLABSIs is just now coming to light, so this is an important addition to the research record.
- The study is believed to be one of the most extensive comparative clinical tests of connector types undertaken.
- The connectors were tested over a long period, which helps validate the results.

IV connectors are needleless devices that connect catheters and other appliances used to deliver [IV therapy](#). They are sometimes called needleless connectors.

IV, or intravenous, therapy is the injection of fluids directly into a vein. Examples of these fluids include medications, nutrients, blood, and fluid replacement to treat dehydration.

Numerous studies show that certain connector designs are associated with higher rates of CLABSIs. For example, a recent [article](#) by the internationally known infection control expert [William Jarvis, MD](#) notes that both positive-pressure and negative-pressure mechanical valves are associated with higher CLABSI rates.

The Methodist study validates Dr. Jarvis' conclusions by showing that the intraluminal protection connector was associated with much lower infection rates than the split septum and negative-pressure devices that the Methodist facility also tested.

“Besides the advantages of the connector, the CLABSI reduction is a credit to our nursing staff,” said Lynch. “They believed in our infection control program and made sure all catheter care practices were performed as safely as possible.”

The study was presented as a poster presentation at [AVA 2010](#), the annual scientific meeting of the [Association for Vascular Access](#). AVA 2010 was held Sept. 24-26, 2010 in National Harbor, Md.

About Methodist Extended Care Hospital

Methodist Extended Care Hospital (MECH) is a 36-bed acute care hospital that focuses on the treatment of long-term patients that are medically stable but require intense, regular medical attention. Often referred to as a "hospital within a hospital," Methodist Extended Care Hospital operates as a separate facility located within Methodist University Hospital. Methodist University Hospital is the largest, most comprehensive adult hospital in the Methodist Le Bonheur Healthcare system.

Most care at MECH is delivered at the patient's bedside using innovative treatment programs, highly trained staff and an interdisciplinary model of care. For more information, call 901-516-2152 or access www.methodisthealth.org/methodist/Locations/Methodist+Extended+Care+Hospital.

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