The LifeShield® CLAVE® Connector: A Clinical Perspective

An interview with
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This Clinical Perspective is underwritten by Hospira.

Mary Lynn McKee's comments were taken from an interview conducted by representatives of Hospira.

The information contained in this article may not be typical of all hospitals.

Comprising more than 1,300 beds in four acute-care hospitals as well as five major freestanding ambulatory clinics, Oakwood Healthcare System is a key healthcare provider in southeast Michigan. Offering a breadth of services, the system provides healthcare for 1.2 million people in 35 communities and is distinguished by its nationally recognized cardiovascular care. Recently, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) rated Oakwood the highest among all healthcare organizations in southeast Michigan for safe, quality healthcare.

Recently, Oakwood implemented LifeShield® CLAVE® Connectors throughout their acute and ambulatory care sites. Mary Lynn McKee, RN, BS, MSN, worked with pharmacists, nurses, materials managers, and the Oakwood infection control and education departments on the Oakwood Products Committee in selecting the CLAVE® system.

The Need for Needlefree

The move to needleless IV administration at Oakwood began in small steps. Oakwood had long used Hospira's standard reseal product line throughout the hospital. In 1999, Oakwood implemented Hospira's Plum® Infusion System and began using Hospira's pre-pierced tubing and other needleless adapters in some areas of the hospital. However, when the Occupational Safety and Health Administration's (OSHA) Bloodborne Pathogens Standard became law in January 2001, it became clear that a full-fledged systemwide initiative for standardized needlefree systems was necessary throughout the hospital.

Compliance with OSHA standards presents a distinct financial and organizational challenge for any hospital system. However, noncompliance incurs serious consequences. "I've heard that some hospitals in the area that haven't switched to needlefree systems were fined $14,000 and given a timeline for being compliant. And if they weren't compliant in that timeline, it was escalated 50%," says McKee. "It's a severe financial fine for not being compliant."

Preventative Measures for Solid Safety

Needlestick injuries are a key focus of OSHA inspections; hospitals may incur up to $7,000 per violation for these injuries.[1] Unfortunately, needlestick injuries remain prevalent; annual estimates for these injuries range as high as 600,000 to 800,000 incidences per year.[2,3] However, evidence suggests that needleless IV systems can decrease these numbers by as much as 88%.[4]

Accordingly, Oakwood organized a team of staff dedicated to OSHA compliance. The team gathered systemwide needlestick data, which indicated that an initial switch to needleless IV catheters, in conjunction with a later conversion to a needleless IV administration system, would best meet OSHA standards and protect nurses from needlesticks.

In implementing this plan, Oakwood received assistance from Hospira, their prime equipment vendor. "They provided us with quite a bit of information on how their product was compliant with OSHA standards," says McKee. Hospira representatives also helped McKee prepare a conversion analysis which allowed Oakwood to plan a systematic conversion to the Hospira LifeShield® CLAVE® systems.

Advanced Efficiency

After careful consideration, Oakwood began implementing the LifeShield® CLAVE® Connector in its hospitals systemwide in autumn 2002. "When I presented to senior administration the difference between the CLAVE® and the pre-pierced system…and what it would mean to the nurse at the bedside, I was able to sell them on the efficiencies to be gained for the nurse," McKee says. "With the pre-pierced system, the nurse has to take a handful of parts and pieces with her to make a needleless system. With the CLAVE®, you just connect your syringe on it and you're ready to go."

Notably, the CLAVE® eliminates the risk of needle use by its very design—enhancing safety for both healthcare staff and patients alike. Other benefits of the CLAVE® system include its latex-free manufacturing. "Our goal is to be latex-free in the whole hospital system," notes McKee. The CLAVE® also offers an ultra-low negative displacement of 0.02 ml, resulting in more accurate dosing. And the CLAVE® flow rate is greater than that found with an 18-gauge needle.

Easy to Train, Easy to Transition

The advanced ease of use, efficiency, and time savings inherent to the CLAVE® system has made it popular among healthcare staff—even those who initially resisted the idea of change. Some staff even eagerly anticipated the switch to CLAVE®, McKee notes. "Many staff had seen it, or used it in previous jobs and just loved it," she says. "They were able to help me sell it to their peers."

In addition, despite the vast number of staff with varying work shifts, introducing the CLAVE® system to Oakwood staff proved to be "probably the easiest product transition we've ever done," McKee says. "We found that the best way to do something like this was to go right to the unit." Hospira training staff brought story boards and posters to display proper CLAVE® usage, which facilitated training. These story boards and posters were then left on the units for reference, McKee says. Hospira representatives also assisted with the process of switching out medications on about 100 crash carts to the LifeShield® versions with luer locks.

On an average, each inservice session only lasted about 10 minutes. "It didn't require the nurse to be away from the bedside for a long period of time because it's such a simple system," says McKee.

Although the conversion to needleless systems is complete, Oakwood recognizes the importance of continuing education on needlestick prevention. For this purpose, Oakwood is planning to team with Hospira again. Hospira's free Needlestick Prevention Series reinforces the Needlestick Safety and Prevention Act, describes what complications can occur from needlestick injuries, and offers coping models for needlestick injuries. The CME series is designed specifically to help nurses obtain recertification for relicensure.

Greater Efficiency for Greater Staff Retention

Yet the CLAVE® simplicity of use offers even greater benefits beyond providing immediate efficiency and convenience for staff, McKee says. "We're all aware of the need to retain our nurses; we need to keep the nurses we have," she notes. "And in order to do that, we need to make their job as easy as possible, knowing that it's a hard job. The CLAVE®, being such a simple device to use, saves the nurses valuable time."

Staff retention becomes even more crucial when considering that the cost of training and orienting a new nurse remains high, McKee says. "$25,000 is probably just the beginning of the cost of orienting a new nurse. When you provide nurses with equipment and tools that are safe and easy to use, you're going to keep those nurses for several more years."

References:

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