Cerner – Closing the loop in medication administration

The accurate and safe administration of infusion therapies – non-oral medication delivery such as intravenous, epidural or intramuscular delivery – depends on concentration at every point. A missed decimal point or wrong spelling can lead to dosage or medication errors.

To enhance the safety of infusion therapies and improve accuracy, Cerner Corporation has developed the CareAware Infusion Management System. Cerner, a leader in healthcare information technology, collaborated with WellSpan Health, a multi-site healthcare institution, and global pharmaceutical and medical delivery company Hospira to develop the system.

The system was launched at Medical-Surgical ICU of WellSpan’s York Hospital in York, Pennsylvania in December 2010. With its implementation, nurses no longer have to manually program patients’ orders into the pump, thus reducing the potential for manual errors and improving the clinician’s workflow at the point of service.

It was a shared vision of improving patient safety that brought the three organisations – Cerner, WellSpan and Hospira – together. Leveraging Cerner’s expertise in healthcare information technology, as well as Hospira’s leadership in infusion therapy and the capabilities of WellSpan Health’s clinicians and researchers, this innovation takes the nurse out of the role of a technology integrator.

Innovative infusion management
Combining the safety features of an automatically programmed infusion pump and software that improves clinical visibility to real-time infusion data, the system will help improve previous processes, where manual documentation of the increases and decreases in medication was required. The infusion management system allows data that is electronically available in the infusion pumps to flow seamlessly into the electronic health records.

For example, the CareAware Infusion Management System enables the orders to be associated with the correct patient, and the infusion pump to be programmed automatically via barcode scanning. An organised dashboard view gives clinicians a summary of the patient’s health information, thus enabling caregivers to spend more time providing quality care instead of entering device data into the electronic health record.

The implementation of the technology has resulted in several benefits, including a 27% reduction in nursing time required to start a new infusion. The integration with pump safety software also led to the prevention of an estimated 30 potential adverse drug events.

Award-winning collaboration
As one of the first systems in the world to accomplish bidirectional communication and closing the loop on the infusion medication management process, the unique technology won the Collaboration Award as part of the 2011 Way-Paver Awards at the 6th Annual unSUMMIT Conference for Bedside Bar Coding.

This award is significant as it is the first Way-Paver Award to recognise the collaborative efforts and results between a hospital, healthcare technology company and a provider of clinical information and medication delivery technologies.

The Way-Paver Awards recognise individuals and organisations that have cleared the path and paved the way for safer point of care in hospitals worldwide.