

# Integrating Technology SIGMA Spectrum Infusion System integrates into Cerner

## SILVER CROSS HOSPITAL TAKES THE NEXT STEP WITH THEIR INFUSION PUMP SYSTEM

Enhancing patient safety is a major goal of healthcare institutions; however, the manual documentation process for IV medication delivery can present an obstacle to achieving this objective.

In March 2010, Silver Cross Hospital implemented the **SIGMA Spectrum** Infusion System from Baxter Healthcare Corporation. “Four months after implementation, we had 98% compliance with DERS [Dose Error Reduction Software],” says Chris Duchene, RN, Silver Cross Clinical Educator.

Today this 289-bed hospital in New Lenox, Illinois—a Thomson Reuters Healthcare **100 Top Hospitals** National Award winner for 7 consecutive years—has approximately 300 **SIGMA Spectrum** pumps in service. But being a tech-savvy hospital with an extensive technology roadmap, Silver Cross was ready to take the next step.

Silver Cross Hospital has successfully integrated the **SIGMA Spectrum** Infusion System into *Cerner Millennium*®, the hospital’s electronic medical record (EMR) through the *CareAware Infusion Management*™ solution.

Ensuring their infusion pumps would integrate with their EMR was a key criterion during the pump evaluation. “We thought about all this two years ago when we implemented the pump,” Duchene says. “We were looking at what we could do in the future.”



*“We really have to feel comfortable that we’ve solidified our learning before we take on something new. Every step we take develops trust in technology...” —Peggy Gricus, Chief Nursing Officer/Vice President of Patient Care*

## THE BENEFITS OF INTEGRATION

Integrating the **SIGMA Spectrum** Infusion System with Silver Cross's EMR provides clinicians and pharmacists the ability to enhance their workflow and improve clinical documentation.

### Enhanced Patient Safety Feature

The administration of intravenous medications can pose particular risks for patient safety. The use of smart pumps and compliance with DERS on the **SIGMA Spectrum** pump have made a positive impact on this area of patient safety. Integrating the pumps with an EMR has allowed Silver Cross to further enhance their safety efforts by making timely infusion status information readily accessible to both pharmacy and nursing.

"From a clinical standpoint, I think it is valuable to be able to look at drip rates over time," says Frank Butler, Director of Pharmacy Services. "You are able to evaluate a patient's response to various medication infusions or quickly determine what the drip rate was at the time of a significant clinical event. It allows you to quickly troubleshoot problems and anticipate issues going forward."

Administrative Director of Nursing Mary Brenczewski concurs. "To me, I think sometimes as a nurse we like to put the picture together." Overall, the timely recording of infusion data can help facilitate more informed decisions by the clinical staff.

### Improved Nursing Workflow

The integrated solution can improve the workflow for nurses for clinical documentation when administering IV medication. Being able to electronically transfer infusion data into the patient's record should allow nurses to spend less time manually documenting. According to Peggy Gricus, Silver Cross's Chief Nursing Officer/Vice

President of Patient Care, "Documentation is a huge component of what a nurse does all day long. One less thing - now it goes right into the medical record. That is really helpful."

Several years ago, Silver Cross made the investment in barcoding technology. "But we knew that barcoding is just one aspect of patient safety," says Gricus. Now that the **SIGMA Spectrum** pumps are fully integrated with the Cerner EMR, changes made to the infusion at the bedside are automatically transmitted to the patient's medical record for confirmation.

Using the integrated system does not interrupt the existing barcode medication administration process, either. "It's going to associate the device to the patients' records, and that's it," explains Mary Shanahan, Administrative Director.

### Pharmacy Efficiencies

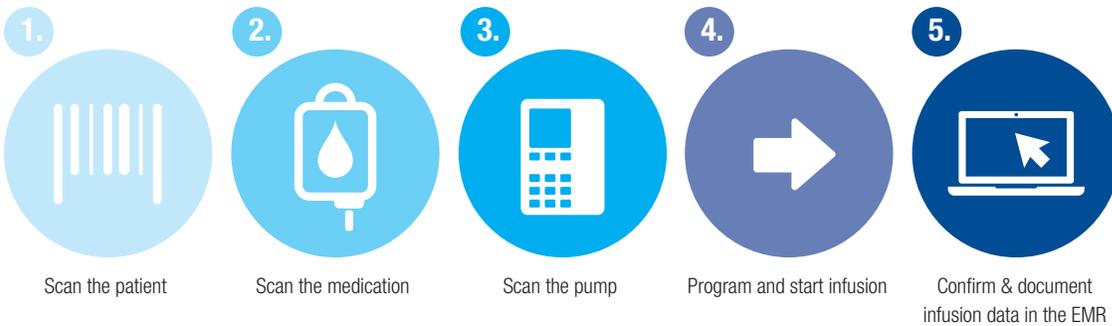
Now that clinicians, from any location within the organization, can quickly check on the current status of an infusion, both nurses and pharmacists are able to better anticipate when the next infusion will be due and prepare for it ahead of time. Phone calls—especially stat calls—to report infusions that are running out are greatly reduced.

The data transmitted by the **SIGMA Spectrum** Infusion System allows the pharmacy department to view infusion statuses organization-wide.

*Pharmacists can pull up a particular pump to see what medication is running, the infusion rate and infusion history.* Additionally, the pump integration provides pharmacists with one location to log into a patient's medical record for a view of the patient's infusion history over the last few hours.

*"I think we are doing it the right way. Since adding the auto-documentation component our nurses are able to see the advantages they now have. They see what information they are able to capture and can identify some reductions in errors." — Chris Duchene, RN, Silver Cross Clinical Educator*

By integrating the **SIGMA Spectrum Infusion System** with your **EMR**, you can enhance clinical documentation efficiency.



## THE VALUE OF NEAR REAL-TIME DOCUMENTATION

“Just the accuracy in the medical record and not having to rely on the nurses’ memories...” is a major benefit of device integration or documentation as a by-product of device integration that Gricus sees. Before this integration, practices for capturing IV infusion information varied among nurses and departments within the hospital. “Silver Cross was not unique,” claims Gricus, “across the nation, nurses have always been creative in how they monitor their documentation and how they keep track of things.”

Chris Duchene explains further. “There was a lot of jotting notes down, taking the information from the infusion device and then jotting that on a piece of paper and then going back to the computer to do the actual documentation.... So just having that electronically capture and transfer it all is a huge advantage.” Now, infusion data, including drug names, concentrations, doses, rates, titration adjustments, volumes infused, start and stops are all documented directly in the patient’s record for the nurse to confirm.

In addition, the complications of manual documentation create inaccuracies that can impact reimbursement and legal terms.

## GOING FORWARD

Pleased with where they’re at with their **SIGMA Spectrum** Infusion System-Cerner EMR integration, Silver Cross Hospital continues to move forward with their technology roadmap and innovations.

“I think we are doing it the right way,” explains Duchene. “Since adding the auto-documentation component our nurses are able to see the advantages they now have. They see what information they are able to capture and can identify some reductions in errors.”

Peggy Gricus explains, “We really have to feel comfortable that we solidified our learning before we take on something new.... Every step we take develops trust in technology.”

*“The primary advantage, from a distribution standpoint, is the ability to determine when we will need to make the next bag which makes us more efficient within the department. Now we can access the health record or view a monitor in our IV area and determine the current infusion rate, the remaining volume, and when the next bag is due.”*

—Frank Butler, Director of Pharmacy Services

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The **SIGMA Spectrum** Infusion Pump is intended to be used for the controlled administration of intravenous fluids, including pharmaceutical drugs, blood components, and mixtures of required patient therapy. The intended routes of administration consist of intravenous, arterial, subcutaneous, intrathecal, epidural or irrigation of fluid space.

**Rx Only.** For safe and proper use of this device, please refer to the appropriate operators manual. Please see manufacturers full prescribing information for Insulin Injection, USP.