Smart IV Pump implementation achieves key milestones

Saskatchewan has broken new ground and is leading the way across Canada with a provincial approach to the implementation of Smart IV Pumps.

Smart pump technology can reduce errors associated with miscalculating drug doses by:
- providing a check of manual calculations;
- ensuring that the dosing formula selected is appropriate to the medication and the patient;
- providing alerts and stopping the infusion pump which allows clinicians to recognize programming errors and miscalculated doses that could otherwise result in patient harm; and
- capturing and reporting data when practitioners program the pumps so that analysis can guide quality improvement efforts.

The new Hospira Plum 360 IV pumps are used to deliver fluids, medications and parental nutrition to patients. They differ from typical infusion pumps in that they are pre-programmed with a provincial drug library.

Pharmacists, physicians, and nurses from across the province worked together to create and validate the drug library that will populate the drug error reduction software.

“This will provide a level of consistency within the province never seen before,” says Mark Anderson, VP of Business Development with 3sHealth. “The most important achievement will be the improvement to patient safety. We also have an innovative financing model to replace current IV pumps with the new Smart Pump technology that will not require the system to make a cash investment at a time when there are so many budget pressures across the health system. We expect to save the health system approximately $2.3 million annually over the seven-year contract with the vendor.”

“By building a single standardized provincial drug library for use in the new smart pump technology we are advancing the safe delivery of IV medications by all healthcare staff, for all patients regardless of where care is provided. This could never have happened without the
support and hard work of our regional health authority and Cancer Agency partners”, says Anderson.

Regina Qu’Appelle Health Region (RQHR) and the Allan Blair Cancer Centre will be the first sites to begin using the new smart pump with implementation scheduled to begin in early 2016. All regions will transition to the new smart pumps by the end of 2016. Training plans to ensure nurse, pharmacist, clinical engineering and IT staff can safely use the new smart pumps are being developed and will be scheduled with each facility rollout.