

Smart pumps will improve patient safety



Photo credit: Allison Finnie of Purely Fresh photography by Ally

Allison Wells, with Logan, still wonders “what if” when she thinks about the near miss she and her son experienced.

The course of Allison Wells’ life changed the morning of May 29, 2014. That was the day her then three-year-old son, Logan, nearly died. Logan, who has a rare kidney disorder, experienced a string of medical errors but it was one near fatal error that changed everything.

While being prepared for a gastroscopy at Royal University Hospital in Saskatoon, Logan was connected to an intravenous (IV) bag containing more than five times the appropriate concentration of potassium chloride.

“All of a sudden, Logan is screaming, writhing and trying to rip his IV out,” said Wells, who works as a Regina Qu’Appelle Health Region (RQHR) pharmacist. “I looked behind me and saw the bag of potassium and knew immediately it was too concentrated.”

Failing to capture anyone’s attention, Wells locked her son’s IV, which stopped the toxic dose from flowing into his body.

“In no more than one minute, concentrated potassium would have stopped his heart. The only person who knew a mistake had been made was me.”

This incident was life-altering.

If Logan’s IV had been connected to a smart pump the day of his surgery, the near fatal error would not have reached him and he, his family and his healthcare team would not continue to re-live those events to this day.

From that day forward, Wells has taken a different approach to her work, and to her life’s mission. Now her professional work and her volunteer work are focused on making our healthcare system safer, and patient - and family-centred.

Smart pumps will improve patient safety... (continued)



Photo credit: Medical Media Services

Allison Wells (left), a pharmacist, and Teresa Vall, a clinical nurse educator, are involved in the implementation of a provincial smart pump program.

Smart pumps will improve patient safety... (continued)

The implementation of provincial “smart” infusion pump technology and of a standardized parenteral formulary (drug library) is vitally important to her.

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Smart pumps are electronic devices used to deliver fluids, medications and nutrition to patients. Smart pumps differ from typical infusion pumps in that they are pre-programmed with a drug library containing drug dosing information. That information includes upper and lower dosing limits, infusion parameters, and provincially standardized drug concentrations.

Should a clinician attempt to program the pump with the wrong dosing information, the smart pump has built-in safety features that significantly reduce the risk of errors reaching the patient. Depending on the inputting error, the alarm will sound and the healthcare provider will be prompted to reassess what was entered. The goal is that the built-in

safety checks will minimize the likelihood of medication errors. While smart pump technology can help reduce IV medication administration errors and prevent patient injury, they can’t replace the critical judgment and firsthand knowledge of our clinicians.

Wells represents RQHR on the implementation team overseeing this project. Her role is to work with pharmacists, nurses and physicians across the province to standardize the library and help define concentrations and develop safe drug limits. This will provide a level of consistency within the province never before seen. The smart pump program is expected to be rolled out in RQHR in early 2016. The rest of the province will follow, with all health regions adopting the technology and equipment by the end of 2016.

The provincial project team is being led by Susie Hilton, RN, Director of Clinical Services for 3sHealth. Please contact your clinical nurse educator or the provincial team at SmartPumps@3sHealth.ca or call 306.347.1743 to learn more about the SPIV Project.

Story courtesy Regina Qu’Appelle Health Region

Provincial supply chain work focuses on product issues resolution

Saskatchewan's healthcare system purchases and consumes millions of healthcare products each year. In most cases, the syringes, scalpels, latex gloves and more complex items such as intravenous pumps and heart monitors all work according to expectation. But what happens when they don't? The failure of medical products to perform can pose a serious threat to patient safety and must be addressed quickly and effectively.

Since 2012, the health regions, the Saskatchewan Cancer Agency and 3sHealth have been working with clinicians to improve the identification and resolution of product issues. While all organizations have processes for reporting and resolving problems with medical products and equipment, a standard provincial response to communicate and resolve these issues was not in place until recently.



"We had the right people in the room and together we got the results we needed in a short amount of time," said Val Klassen, director of supply chain at 3sHealth about the collective work of health system partners. "I couldn't be happier with our work together and with the direction we're heading."

Clinicians and materials management professionals from across the province working with 3sHealth's clinical advisory and provincial contracting teams are creating a provincial solution for identifying, prioritizing, communicating and resolving product issues.

The work began with a two-day face-to-face planning event in June 2015. A large group of representatives from

the provincial materials management committee and the provincial clinical advisory committee came together with the 3sHealth teams to discuss the current state and brainstorm a better way forward. Participants identified gaps in the way things are done now, discussed and developed a desired future state, identified priorities and created a 2015-16 action plan.

In September, the work continued when a cross-functional team came together to develop and implement standard work to create consistent provincial processes. By the end of the two-day event, the group had successfully created provincial tools and work standards for product issue identification, prioritization, and resolution as well as a plan to communicate and educate others on their use. Training on the tools and standards will occur in October.

One important feature of the new tools is the incorporation of a "risk ranking matrix" while tracking product issues. This will automatically signal users of any recurring risks that will arise as information is reported on a provincial level. The group was also able to agree on standard time periods for resolution by vendors and indicators for when an issue would need to be escalated.

"I'm proud of the collaborative, standardized process we built for dealing with product concerns that can be tailored to meet the needs of all regions and SCA, says Kara Cote, Manager Clinical Equipment & Product Standardization for Saskatoon Health Region. "These improvements are vital to ensure consistent and safe handling of product concerns as they relate directly to patients/residents. It's wonderful to see the high quality work that can result from sessions such as these that 3sHealth coordinated."

Further work in the supply chain area continues. A provincial item master list, or inventory, is being developed. This will itemize all products being used by the health system in the province. An important part of this work is the creation of a standard naming convention to be used for the provincial master list. Saskatoon Health Region will be playing a leading role in this work.

"The provincial common item master file is a massive undertaking, comments Mike Losie, Materials Management Coordinator for Saskatoon Health Region. "While it will be extremely complicated, it is essential for our provincial plan. We only have one chance to get this right so we want to ensure that both our research and our work leave no stone unturned."

Provincial linen service transition launched in September

State-of-the-art infection prevention and control, quality processes to ensure defects do not reach patients and residents, enhanced safety, softer, larger, and more comfortable linens, and a smaller environmental footprint – these are all innovations of the new provincial linen service.

It has been two years since the decision was made to create a single provincial linen service for Saskatchewan's health system. An extraordinary amount of transition planning has taken place since then. Working side-by-side, the health regions, cancer agency, 3sHealth and K-Bro Linen Systems (K-Bro) have been preparing the healthcare system for change. Sunrise Health Region was the first to transition to the Regina line plant. As of November 18, all health region and Cancer Agency sites, with the exception of Saskatoon Health Region and Heartland Health Region, will be receiving their linen from the K-Bro plant in Regina.

"Planning and implementing a single provincial linen service for our province has been a massive undertaking", says Mark Anderson, VP Business Development for 3sHealth. "It could not have happened successfully without the involvement, cooperation and commitment of the health regions and the Cancer Agency. I am excited to see this initiative become a reality."

Beginning with site tours in the summer of 2014 to gather data, the regions, the cancer agency, 3sHealth and K-Bro have been working side-by-side to prepare. Detailed project planning meetings, the development of provincial standard work, training, and change readiness planning have prepared everyone for transition to the new service.

The new Regina linen plant began providing linen to its first customer on Sept. 14th. High capacity tunnel washers, dryers, and folding machines are fully automated and have built-in worker safety features. Soiled and clean linen processes are completely separated to prevent contamination and ensure infection prevention and control. A completely separate and sterile section of the plant processes the surgical linen. In addition, a new distribution centre in Prince Albert opened for business on Oct. 12th to serve the five northern health regions.

"We are excited about our partnership with 3sHealth and its health system partners," says Linda McCurdy, CEO and President of K-Bro. "K-Bro brings over 60 years of experience to healthcare linen service and is currently serving approximately 25,000 hospital and long-term care beds across the country. We welcome Saskatchewan to our family of customers and are committed to bringing a high quality linen experience to patients, residents and family members."

Once the transition is complete, providing healthcare linen to the province will become a service provided by K-Bro and managed by 3sHealth. Working together with health system partners both organizations will focus on providing quality to patients and residents and responsive customer service to their partners.



Partners in planning provincial transcription services project

These days, there are so many ways to stay connected. But nothing matches the opportunity to get together and have face-to-face conversations: it's still the most meaningful way to listen, learn and engage with peers and partners.

The provincial transcription services project team has appreciated the hospitality of the regional health authorities and Saskatchewan Cancer Agency as they're travelling across the province for site visits. To date, they've been to about 14 communities from Weyburn in the south to Buffalo Narrows in the north.

The goals of the visits are to:

- Provide service line and non-service line representatives with a project update;
- Walk the gema and engage with frontline staff;
- Collect information about how transcription services are currently delivered at sites; and
- Perform readiness assessments to determine possible sequencing of implementation activities.

The provincial project team is meeting with the people from each RHA and SCA who will be working on the project as members of local transition teams. These face-to-face opportunities will help to set the stage for implementation of the first-ever provincial transcription service.

"The site visit was a wonderful, information-loaded experience that I was so happy to be part of," said Karri Stremick, who works as a medical transcriptionist in the Prairie North health region. "As frontline staff, it was great to know that my opinion matters and was being heard. The excitement and eagerness in the room for positive change and improvement was palpable!"

Her colleague in the region, Sharon Jandl, who works in health records management, echoed the sentiment.

"I found the site visit very informative. It was nice to have someone in person to answer questions directly."

The visits have generated many productive discussions about the project and what to expect in the coming months. Project team members from across the system will be working with hundreds of stakeholders, including frontline staff, managers and clinicians, to ensure successful implementation.

"The face-to-face interactions are really helping to bring us together and fostering a greater understanding about how we are all working together at a system level to improve how



Transcriptionists who participated in the October 20 event in Kelsey Trail (at the Melfort Union Hospital). Back row (L to R): Shelley Hiebert, Nicole Lyons and Jennifer Fedorychka; front row (L to R): Sandra Wittig and Dawn Rolles

the service is delivered to patients and families," said Janine Daskalchuk, director of provincial transcription services. "We are there to listen and absorb as much as we can."

Marga Cugnet, Sun Country CEO, said the site visit to her region was great for staff to get an overview of the project.

"Through this project, transcriptionists will see that they play a bigger part of the picture. It's about being a part of improving the healthcare system. It will be your mother, your father, your sister, and your brother that is affected by this transformation."

Krista Bostock, regional director of health information management in Sun Country added that their transcriptionists were also thankful to be able to participate.

As the project continues to progress, much more engagement will be needed to ensure an effective transformation through new and standardized technologies and processes at the provincial level for acute care, medical lab, and medical imaging services.

By transforming the service, both the accuracy of patients' health information and report turnaround time for transcribed reports will be optimized to deliver better care to patients and families.

Delivering quality payroll service

There is great responsibility in managing payroll services for 47,000 healthcare employees across Saskatchewan.

“We take this responsibility seriously,” says Amanda Will, payroll manager at 3sHealth. “We are proud of the fact we consistently manage to get the payroll completed correctly and on time; we couldn’t do it without the partnership of the health regions, Saskatchewan Cancer Agency and many others. We have worked very hard together to develop a process and practice that ensures employees can count on their pay arriving on time and in the right amount every time.”

The process goes smoothly the majority of the time. When it doesn’t, healthcare system partners work together to identify solutions and put processes in place to ensure errors are not repeated. First, payroll personnel in the Regional Health Authorities and Saskatchewan Cancer Agency work hard to resolve errors at a local level. If payroll personnel in the RHAs and SCA experience other, more technical kinds of errors with the provincial systems hosted and managed by 3sHealth, they often turn there for help. When new organizations come on to the provincial payroll system, like William Booth Care Home in 2014, or when existing clients are in need of support (like training), 3sHealth is also there to lend support.

“The quality service we’re able to deliver does not go unnoticed and we appreciate so much when people let us know they’re happy,” says Will. “We also appreciate knowing when there are defects in our processes so we can find solutions and fix them together.”

“I’m proud of the fact our payroll colleagues in the health regions and cancer agency aren’t shy about reaching out to our team with the good and the bad,” says Will. “It feels pretty good when we get positive feedback from some of our most satisfied clients.”

Duane Hamilton, team lead of the eHealth service desk, is one such customer.

“I frequently reach out to the information management folks at 3sHealth for assistance. I find that all my interactions are of the most courteous and professional manner on a consistent basis. The staff at 3sHealth not only assist me with my concerns but take the time to explain what has occurred, which is beneficial to an end user. It is a pleasure dealing with 3sHealth.”

Did you know that...?

- In 2014, the team:
 - Processed \$2.3 billion in payroll for 47,261 employees (on a biweekly basis);
 - Performed roughly 250,000 transactions (each week); and
 - Generated 55,941 T4 slips.
- 38 organizations in the province use our payroll services.
- Issues with payroll are logged through Service Desk and are dealt with daily by assigned specialists. In August, the team had a total of 234 issues logged by clients.