



# Humber River Hospital

## **PillPick®** Automated Packaging and Dispensing Provides a Fully Integrated Pharmacy Automation System to Efficiently Pick and Package Unit-Dose Patient Medication.

Located in Toronto, Ontario is Humber River Hospital, a 656 -bed major acute care community hospital with additional 230-bed and 214-bed Reactivation Care Centers. It's also a teaching facility affiliated with the University of Toronto and Queen's University. Humber River Hospital has a catchment area of 850,000 residents of North West Greater Toronto.

With the core values of compassion, professionalism, and respect for patients, visitors, staff and community, Humber River Hospital embraces

innovation. This facility is North America's first fully digital hospital, featuring a Command Center where data is continuously monitored to surface insightful and predictive analytics. Administrators digitally track quality measures in the areas of capacity, safety, quality, and wait times.

As a trusted partner, Swisslog Healthcare pharmacy automation plays an essential role in safe, efficient medication administration at the largest acute care center in the greater Toronto area.



## The Challenge

Humber River Hospital was previously a multi-site organization lacking automated medication storage and management. The absence of efficiency-creating technology taxed skilled staff with labor-intensive manual tasks that limited their ability to participate in clinical activities.

## The Solution

In 2005, plans began for the construction of a new facility, where a commitment to innovation could leverage technology to address capacity, safety, quality, and wait time issues affecting many hospitals. Hospital leaders conducted environmental scans of other organizations, reviewed literature, and polled a variety of professional groups to execute due diligence before selecting a pharmacy automation partner. Humber River Hospital ultimately chose to partner with Swisslog Healthcare to service the needs of the central pharmacy.

Throughout the planning process, Humber River Hospital executives consulted with the Swisslog Healthcare team, experienced with scoping and designing complex, large-scale pharmacy automation projects.

The relocation from multiple care delivery sites completely reliant upon primarily manual methods

into a single, technologically advanced facility presented Humber River Hospital staff with tremendous opportunities to improve standards of care. It also meant radical changes in processes and procedures impacted by the new technology. Timely patient care necessitated the staff be familiar and comfortable with product interfaces, reports, and software upon treating the first patient.

The new state-of-the-art Humber River Hospital opened with great anticipation in the fall of 2015. The facility featured two pharmacy automation solutions from Swisslog Healthcare, the PillPick® Automated Packaging and Dispensing System, and the BoxPicker Automated Pharmacy Storage System. The PillPick provides advanced medication traceability and auditability, a significant advantage over manual workflows in ensuring patient safety. Serialization facilitates the monitoring of every medication dispensed by the device by lot number



«Since partnering with Swisslog Healthcare, we have been able to re-deploy pharmacy technicians to patient-facing activities such as fulfilling the best possible medication histories in the ED or Surgical Clinic.»

- Albert Karas, Director, Pharmacy Services, Humber River Hospital

and expiration date. The serialized bar-coding also enables for the return of unused medications. In deploying the PillPick, Humber River Hospital elevated medication management practices to enhance patient safety and efficiency.

The BoxPicker facilitates the reduction in on-hand inventory by centralizing and automating medication storage. With BoxPicker, less time is required to pick patient-specific doses, and drug-to-patient turnaround times have also been lowered, hastening patient treatment.

These two pharmacy automation solutions are an integral part of Humber River Hospital's closed loop medication management system that ensures patients receive the right medications every time.

## Implementation

In the months leading up to the move, Swisslog Healthcare Realization and Project Management teams led Humber River Hospital stakeholders through implementation best practices.

With widespread change on the horizon, supporting staff, building engagement and explaining the value gained by automating medication storage, packaging and retrieval were essential components for setting the hospital pharmacy services staff up for operational success.

Before and after the project went live, Swisslog Healthcare supported Humber River Hospital by training super-users, providing recommendations for workflows and configuring specifications.



## Measures of Success

Medication administration accuracy is a key performance indicator at Humber River Hospital. The BoxPicker and Pillpick ensure extremely high degrees of medication dispense accuracy. Using Swisslog Healthcare pharmacy automation, Humber River Hospital reports medication picking errors have been reduced by more than 50% compared to the previously manual workflow. Inventory control has increased by approximately 30%. The overall medication error rate is very low at a rate of 0.007%.

Two immediate benefits brought by such confidence in medication accuracy are greater patient safety and department quality standards. With a broader view, the high medication accuracy created by the automation maximizes patient safety by reducing the risk for patient harm related to medication dispensing.

After implementing Swisslog Healthcare pharmacy automation, Humber River Hospital has experienced a reduction in inventory overhead, and inventory waste/expirations, and missing medications. Improvements to workflow created by deploying the PillPick have led to a reduction of at least 30% in pharmacy technician labor required to package and pick unit dose medications, allowing for the re-deployment of skilled staff to other higher-value and rewarding tasks. Previously, approximately six to seven technicians were needed daily to manually

package and pick doses and fill point of care medication carts; now the automation does the heavy lifting.

With Swisslog Healthcare automation in place, Clinical pharmacists are decentralized and can have a tighter clinical focus and provide more patient-centered care and pharmacy technicians can now be re-deployed to other patient-facing roles such as conducting best possible medication histories. This provides them with an opportunity to work collaboratively with multi-disciplinary teams to ensure optimal medication management. Now, the pharmacy staff has more capacity to advance patient outcomes and optimize medication use. Under the previous manual workflows, pharmacy staff was more focused on doing various tasks concerning medication packaging and distribution.

The workflow improvements are also reflected in the outlook of staff and the overall atmosphere of working in an environment that embraces technology. Staff engagement and commitment levels have increased as well, with many staff becoming super-users to lead process and workflow improvements. Concentrating on higher-value work has increased staff outlook and job satisfaction, which in turn has led to increased levels of service to patients.



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**«We experience significant benefits as a Swisslog Healthcare customer. The whole ecosystem helps us do our jobs better; this means safety and efficiency enterprise wide. We have a great relationship with our Swisslog Healthcare team.»**

- Albert Karas, Director, Pharmacy Services, Humber River Hospital

## Ongoing Support

With every purchase of a BoxPicker and PillPick, a local Field Service Technician is paired with the facility. The technician acts as a highly available extension of the internal pharmacy team. The Swisslog Healthcare technician is on-site several times a week to perform preventative maintenance to ensure the equipment runs optimally and minimize any downtime.

Consulting on current capacities and future enhancements, Swisslog Healthcare also supports Humber River Hospital by helping stakeholders forecast future needs to assist with advance planning.

Pursuing continual improvement, the facility regularly coordinates with a Swisslog Healthcare Customer Success Manager to optimize workflows and identify new opportunities for efficiencies.

## Conclusion

Humber River Hospital has been recognized for excellence by several esteemed organizations, including Studer Group Canada for Excellence in Patient Care, Health Standards Organization for Innovative Leading Practices Awards, and the Canada Green Building Council for Leadership in Energy and Environmental Design.

With BoxPicker and PillPick, Swisslog Healthcare helps the facility continue a tradition of high reliability and distinction through quality standards for providing medication management.





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