

CASE STUDY: MEDWORXX HELPS SOUTHLAKE REGIONAL HEALTH CENTRE STREAMLINE PATIENT FLOW

Utilization management data supports transformation initiatives that reduce wait times and Length of Stay and accurately capture Alternate Level of Care days.

BACKGROUND

A REPUTATION FOR FRIENDLY HELPFULNESS

Southlake Regional Health Centre (“Southlake”), which is located in Newmarket, Ontario and is the hub for the Central LHIN (Local Health Integration Network), has been serving the local community for more than 85 years. Although Southlake has transitioned from a community hospital to a regional health centre over the past 10 years, it has retained that friendly, helpful, patient-centred culture typical of a community partner.

The approximately 2,800 employees, 500 physicians and 900 volunteers at Southlake are committed to delivering the best possible care to patients occupying the centre’s over 400 acute, rehab and complex care beds through regional programs that include: Cancer, Cardiac, Adult Mental Health, Child & Adolescent Mental Health & Eating Disorders, Arthritis and Maternal & Child Care.

The regions that Southlake serves, York and South Simcoe, include more than one million people. York Region alone, which already has twice the provincial average of people under the age of 65 and three times the provincial average for seniors over 65, is growing at the astounding rate of 36,000 new residents every year.

CHALLENGE

The Challenge

Reduce
Average
Length of Stay

As is the case in most hospitals, senior management at Southlake was deeply concerned about the average Length of Stay (LOS) recorded for patients in its acute care units. Patients meeting Readiness for Discharge (RFD) or designated as Alternate Level of Care (ALC) were not being moved out of the hospital fast enough, creating a shortage of available beds.

“Our goal was to be within the top 25% of Ontario hospitals with respect to LOS, and we were not there yet. With Medicine patients, for example, experiencing an LOS as much as two-and-a-half days too long, there was clearly work to do,” explains Jane Casey, Southlake’s Director of Medicine Programs, Rehab, Complex Care, Chronic Diseases, Health Records/Decision Support & Southlake Residential Village.

Excess LOS has negative financial implications – the hospital is funded based on patient acute care days, not RFD or ALC days. It also creates ‘gridlock’ in the Emergency Department (ED), where patients are often stranded after a decision to admit has been made because there are no beds available in the inpatient units. Gridlock not only adds to ED congestion, but more importantly, it means that patients are waiting longer to be admitted and for treatment to begin. This can detract from the patient’s experience, affect quality of care and possibly impact the ability to provide the best possible health outcome.

It appears that Southlake’s bed utilization concern is further compounded by the very high growth rate in the number of people living within the catchment area the hospital serves.

“Even though the region’s population is increasing dramatically, we weren’t adding beds, so we needed to figure out how to manage all those patients and better utilize the beds we already had,” admits Casey.

The Solution

To get a clear picture of bed utilization at the hospital, particularly with respect to LOS and why patients were staying too long, Southlake engaged the services of Canadian Healthcare Management, a Canadian consulting firm that helps hospitals improve healthcare outcomes and better manage resources.

Retrospective Review & Analysis of LOS

Based on a retrospective review and analysis of LOS that included auditing numerous patient charts, a number of recommendations were made aimed at increasing bed utilization by removing blockages to patient flow through the hospital. The underlying premise was that improving patient flow would shorten LOS, thus freeing up more beds and improving care.

Key recommendations included:

- 1) Formation of the hospital’s new Clinical Resource Utilization Committee (CRUC) to focus on optimal use of clinical and hospital resources; and
- 2) Acquisition of a bed utilization management tool.

“Such a tool would enable us to look at patient status on a daily basis, including, amongst other things, identification of ALC patients,” explains Casey.

MEDWORXX TOOL SCORES HIGHEST

After conducting an RFP exercise that involved review of several utilization management products available on the market, including vendor presentations, demos and visits to client reference sites, Southlake chose the Utilization Management (UM) system from Medworxx.

Medworxx UM is based on a short, daily assessment of each patient, using predefined ‘Clinical Criteria Sets’ corresponding to the patient’s type of illness, to identify the patient’s current status (e.g. needs acute care, RFD, suitable for ALC, etc.) and to indicate whether service delays or blockages to patient

flow are due to physician, hospital or community reasons.

“Based on the rigorous scoring system we established, Medworxx came out the highest overall,” reports Casey, who was part of a selection committee that also included clinical and health records management and physician leadership. Casey goes on to explain that the committee found the Medworxx tool to be the easiest to use and that it provided excellent real-time data corresponding to the real-time changes in patient and bed status that take place every day.

“It was our doctors who turned out to be the biggest proponents of Medworxx,” emphasizes Casey, describing how physicians bought into the fact that LOS needed to be reduced and realized that they needed some help to do that.

According to Casey, another reason they chose Medworxx was that they would not have to roll it out to the whole hospital all at once, but instead they could introduce use of the tool into individual units, where it would be just as effective in support of a single program; and this is exactly what they did.

The Approach

To get the Medworxx implementation ball rolling, Southlake initiated a pilot deployment in two Medicine units, employing an end-user model called “dedicated assessors” – only a select, highly trained group, rather than all frontline staff, would be trained as users.

Pilot Deployment of a Select End- User Model

Accordingly, two nurses were hired, and subsequently trained by Medworxx, to serve as Clinical Resource Reviewers (CRR) on the pilot units, using the tool to collect patient status and bed utilization data by conducting daily patient assessments and to generate the RFD and ALC reports.

Explaining why Medicine was chosen, Casey says, “That’s where the biggest concern was, and thus the greatest leverage for the product, and that’s also where we had the greatest buy-in from clinical and physician leadership.”

The pilot started with hospital and Medworxx IT people working closely to ensure smooth integration of the application with the hospital’s other systems, including ADT, for example, from which patient demographic data could be imported into Medworxx, eliminating the need for data re-entry by users.

PILOT SETS TONE FOR HOSPITAL-WIDE ROLLOUT

The initial Medworxx pilot in two Medicine units ran for six months, during which time the CRRs began attending bullet rounds as part of the interdisciplinary team and used RFD and ALC data from Medworxx to solidify ‘patient flow’ as a critical factor in the discussions and decision-making regarding daily care plans for patients.

“Compared to what I’ve observed about how other hospitals implemented Medworxx, we chose to go very slowly so we could get things absolutely right and produce meaningful results in these first two units in order to get buy-in; and then we would roll it out to other units from there,” explains Casey.

At the same time as the Medworxx pilot in Medicine, a number of LEAN process optimization events were underway in the hospital as well as the Ministry-sponsored Flo Collaborative program (similar to the Government’s ED Performance Improvement Program), which partnered Southlake and the local Community Care Access Centre (CCAC) to improve the flow of patients through Medicine and back into the community. Medworxx data proved to be very useful in supporting these initiatives in Medicine.

“One of the things we learned from the pilot was that Medworxx would be effective in supporting clinical process transformation objectives by helping us steer our utilization and patient flow improvement efforts in the right direction,” reports Casey.

OPERATIONAL INTEGRATION KEY TO SUCCESS

Over a roughly two-year period following successful completion of the pilot, Southlake implemented Medworxx and hired CRRs for many additional hospital services, including the remaining Medicine units, Surgery, Cardiology, Complex Care, Rehab, Paediatrics and Mental Health.

“By focusing just on Medicine initially and demonstrating staff commitment and great results, the other units all wanted to get on board with Medworxx,” says Casey, who believes that the key to their continued success has been integrating the use of the tool and resulting real-time data into the day-to-day work and culture on each unit.

Citing one example, Casey describes how unit managers now start every morning by first bringing Medworxx reports to bullet rounds on each floor to identify patient discharge roadblocks, and then attending ‘bed meetings’ with other unit and service managers to clear these roadblocks.

Medworxx reports aid
in morning bullet rounds
and bed meetings

Casey goes on to say that choosing senior, well-respected nurses as CRRs, ensuring that staff heard messages from medical and clinical leadership about the value of Medworxx, and proactive support for Medworxx by hospitalists working in Medicine also contributed to a successful Medworxx deployment.

As a result of the hospital’s LEAN efforts, specifically a Kaizen event looking at discharge planning across the organization, it was discovered that three different staff roles in Medicine had considerable overlap – the CRR, the Discharge Planner and the Resource Nurse. In the interests of efficiency, these roles were consolidated into a single position – the Patient Flow Navigator (PFN), who is responsible for daily patient assessments and using the resulting Medworxx UM data for discharge planning and removing roadblocks to patient flow through Medicine. This consolidated PFN role was subsequently adopted in Cardiology, Complex Care and Rehab as well, while some units continue to use CRRs.

“The PFN concept has been a huge success and has been replicated in more than 10 hospitals I know of in Ontario, and both the UK and Alberta are also looking at this approach,” reports Casey.

As the Medworxx deployment grew, Southlake hired a Coordinator of Utilization Management to focus exclusively on the rollout, on training PFNs and CRRs and on integrating Medworxx data into the clinical process operating within each unit of the hospital.

“I work very closely with Medworxx people every day and find them really willing to work with me and accommodate our suggestions and they often take the initiative to develop new reports and new capabilities,” enthuses Marilyn Playter, Coordinator of Utilization Management at Southlake.

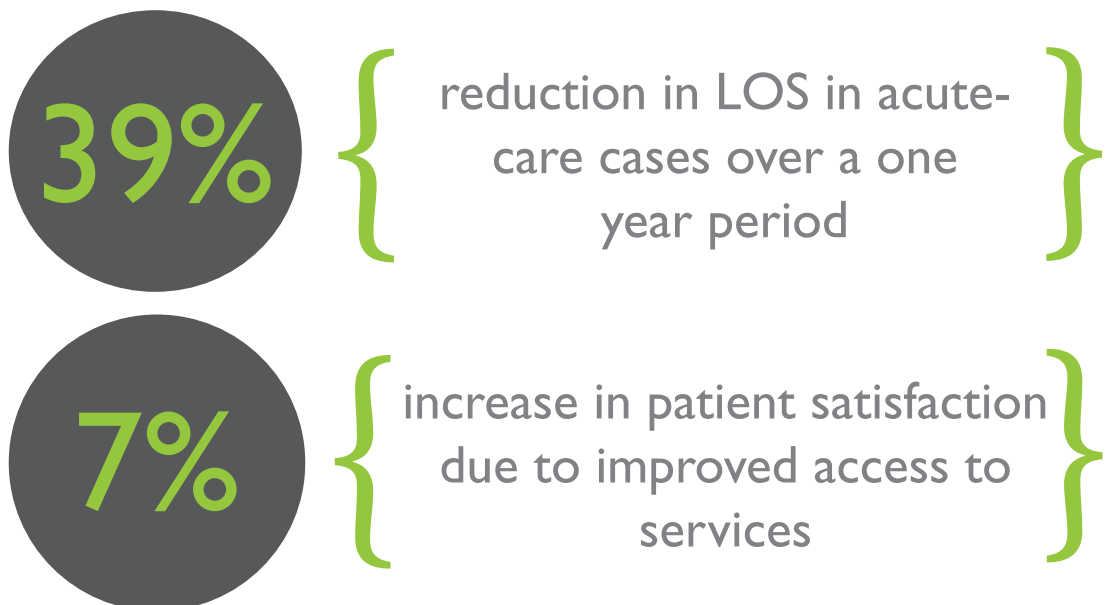
The Results

Data provided by Medworxx UM is helping Southlake monitor, measure and streamline patient flow, thereby contributing to the achievement of strategic goals at the LHIN level and within the hospital.

For the Central LHIN's "Action Plan to Improve Quality in the Transitions of Care", for example, Medworxx provides real-time data to support comprehensive reporting of critical Transitions of Care indicators, including LOS, RFD and ALC. Medworxx UM data is also helping standardization of the hospital discharge process by supporting use of visual patient boards and identification of reasons for service delays.

At the hospital level, real-time Medworxx UM data and the assimilation of a Medworxx culture into daily clinical process are helping Southlake staff and management, including the CRUC, succeed in their efforts to eliminate barriers to priority patient flow goals outlined in the hospital's 2011 annual Quality Improvement Plan (QIP), including:

1. Reducing wait times in the Emergency Department for admitted patients by three hours, which would place Southlake in the 90th percentile for Ontario hospitals ... improved access to services has resulted in an increase in patient satisfaction;
2. Reducing unnecessary time patients spend in acute care ... the percentage of acute care patients for which an Estimated Discharge Date (EDD) has been established has increased from 15% to 92%, and LOS in acute care has been reduced by 5% over a one-year period and 17% over three years; and
3. Reducing discharge delays that are due to physician or hospital reasons ... "physician reasons" as a cause for discharge delays has been reduced from 26% to only 10% and "hospital reasons" have been reduced from 20% to 6%.



"We've been able to remove an average of two days from LOS over the past three years, leaving us a mere half day short of being in the 25th percentile for Ontario overall, based on the Canadian Institute for Health Information data," says Casey. "By providing data that is helping us understand the issues and what patients are waiting on, Medworxx has been one of a number of key contributors to these results."

PROCESS TRANSFORMATION & BETTER PATIENT FLOW

As Marilyn Playter clearly states, Medworxx is just one factor contributing to the impressive results being generated by a number of transformational programs underway at Southlake.

For example, the hospital has been commended by Accreditation Canada for its “Steps to Home” program undertaken in partnership with the local CCAC to facilitate safe and timely discharge of patients from acute care. The step-by-step program uses colour-coded indicators – in a booklet given to the patient/family, on the patient’s chart and on a display board in the patient’s room – to depict the patient’s status on the journey toward discharge and home. The process not only keeps patients and families informed and prepares them for discharge, but also keeps the health team focused on required care tasks and removing obstacles to patient flow. Data from Medworxx UM feeds this program, specifically the patient’s status.

“What’s important about this, and about a lot of how Medworxx data is used in the hospital, is that the patient status is driven by actual data,” explains Playter, adding that for now, the patient board is updated manually, but that they are working on an electronic version fed directly from Medworxx.

Opening of the new Transition Care Unit (TCU) as part of redesigning the Medicine Program provides another example of Medworxx data enabling patient flow transformation at Southlake. After looking at its ALC patients – how many there were, how scattered throughout the hospital they were, their LOS and what they were waiting for – Southlake decided to consolidate all ALC patients into a single, new unit (the TCU). This would not only free up beds in the units from which they were moved, but with all of them in one location, the type of care they needed – home and rehab type care instead of acute care – could be provided more efficiently.

According to Playter, “The Medworxx tool provided valuable data to support this redesign and makes it easy on an ongoing basis to identify who and where the ALC patients are who can be moved to the TCU.”

FURTHER SUCCESS

Further Success

Other examples of Medworxx data being used to support important process improvement and change at Southlake include:

- Sharing of ALC reports with the CCAC to facilitate daily meetings to discuss upcoming patient discharges and transition plans;
- Use of RFD data by the newly formed Clinical Utilization Resource Escalation (CURE) team in discussions with all levels of management to clear obstacles to patient flow;
- Use of data to meet requirements from Cancer Care Ontario on behalf of the Ministry to upload detailed ALC information.

“LEAN events targeting patient flow are still going on at the hospital and will continue, and a lot of them focus on the effective use of data from Medworxx UM,” says Jane Casey, “I can’t emphasize enough that the key to our success with Medworxx is that we have incorporated it into our everyday work,” she adds, and concludes by saying that, “The use of this tool also helps to better integrate the intra-professional care team by giving everyone the same consistent set of data to work with.”