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Integrating Pharmacy Services in Health Links to Improve the Care of Patients with Complex Needs

In 2012, the Ontario government introduced an *Action Plan for Health Care*, established on the three pillars of keeping Ontarians healthy, providing faster access to family health care, and ensuring that the right care is provided at the right place and at the right time.[1] The goals of the Action Plan are to improve the integration and quality of care for patients in Ontario and to ensure future system sustainability.

System sustainability has taken on greater importance in recent years in light of Ontario's demographic and fiscal challenges. Research by the Institute for Clinical Evaluative Sciences has shown that health care costs in Ontario are highly concentrated to a relatively few patients with complex needs. In particular, one per cent of the Ontario population accounts for about one-third of all costs, while five per cent accounts for 66 per cent of all costs.[2] These 'high needs' patients often have multiple co-morbidities, are treated by multiple health care providers and have long lengths of stay in inpatient settings. About 75 per cent of complex patients see six or more physicians, with 25 per cent seeing more than 16. Despite the high costs, there is evidence that these patients' care is neither sustainable in the long-term nor appropriate for their needs. The patients' journey through the health care system is often marked by unnecessary emergency room visits, frequent re-admission to hospitals, duplication of services, and overall lack of coordination. Ultimately, the high needs patients are left to navigate the health care system on their own with little support or guidance, while the health care providers involved in their care operate in silos. This situation is well illustrated by Fred, a high cost patient, who has complex health care needs:

Fred – The High User

Fred is 66 and lives alone. He has 24 different conditions and has been in and out of hospitals or much of the year, including a lengthy stay in acute care, complex continuing care, rehabilitation, and homecare. He also had three ER visits. Fred has seen 16 doctors — **nobody is responsible for Fred's journey.** The cost of his care was over $900,000 in one year. Much of these costs could have been avoided if Fred had received better support to manage his chronic diseases. Access to coordinated primary and specialist care, as well as mental health/addictions services, could have helped manage his chronic conditions and prevent complications. Repeat visits to hospital might have been prevented with appropriate follow-up care at home after his discharges from hospital.

Source: Ontario Government. Health Links: Patient care networks presentation. November 22, 2012.

In its effort to transform the health care system, the Ontario Ministry of Health and Long-Term Care (MOHLTC) has chosen to focus on these high needs patients as the starting point. In late 2012, MOHLTC introduced *Health Links*, a new model of care that aims to improve care coordination and integration at the patient level.[3] All those involved in Health Links, including primary care, hospital, and community care providers, are expected to work collaboratively to coordinate care plans at the patient level. Health Links are both voluntary and designed to be flexible; they are based on local need, with their leadership and composition based on that need.

Unlike previous system transformation efforts, Health Links are not driven by funding as an incentive for change. Instead, Health Links are a bottom-up initiative, driven by health care providers themselves and supported by the MOHTLC through the removal of barriers that may stifle local innovation and act as impediments to effective care. In other words, rather than mandating system change, the MOHTLC is acting

to support health care providers to customize care planning to meet the needs of their patients. On a more local level, the Local Health Integration Networks (LHINs) will support the development of emerging Health Links, including identifying patients, implementing care processes, and providing general oversight.[4]

Each Health Link is required to have a lead organization responsible for coordinating the development of care plans and sharing the relevant information among participating health providers. In some instances, the lead organization is a family health team, while in others the responsibility is assumed by a local hospital or a community organization.

Each Health Link is also expected to engage patients and caregivers in a meaningful way in all stages of the care process, including the development of their care plan. By designing the system around the patient's needs, the Health Links are expected to streamline the patients' journey through the health care system, reduce unnecessary duplication of services, and enhance patient's overall experience.

There are currently 47 Health Links in the province of Ontario covering about half of the population. These are widely distributed across the province, representing each of the LHIN regions.[5] The expectation is that once fully rolled out, 80 or more Health Links will cover the entire population of Ontario.

One of the primary goals of each of the Health Links is to establish comprehensive care plans for the one to five per cent of patients with high needs. The care plans are expected to be developed collaboratively among the health care providers involved in each patient's circle of care, and in consultation with the patient. Once developed, the care plan becomes the blueprint by which all of the health professionals plan their respective treatments. In this way, the health providers are working toward a common goal, rather than operating in siloes. It also ensures that patients receive only the services which are necessary to manage their conditions, resulting in less duplication of care.

Core features of Health Links

Feature	Description
Patient-centred	Activities centered on the needs of the high use patients (top 1-5 per cent) with the goal of improving their care
Local	The scale is at the sub-LHIN level; minimum population of 50,000 people
Voluntary partnerships	Voluntary participation from providers involved in the care of high user group, which at a minimum includes hospital, CCAC, primary care, specialists
Robust primary care participation	Requires a minimum of 65 per cent of primary care providers (all delivery models) in the region
Measurement and results	Ability to identify and track high use/high need populations; identification and tracking is a joint responsibility of all Health Link participants
Leadership	Each Health Link will have a Lead, based on their ability and capacity to engage providers and focus activities on achieving results.

The 47 early adopter Health Links that have been approved are in the initial stages of identifying high needs patients, developing priorities, and fostering local solutions. In subsequent stages, MOHLTC will conduct a rapid-cycle evaluation to identify best practices and success stories, and to tailor existing approaches. Once the early adopter Health Links are fully established, the focus will shift to evaluating the overall success of the initiative and scaling it up to reach across the province. From an evaluation standpoint, the Ministry has outlined 11 strategic objectives for Health Links to achieve in the long-term. Overall, the Ministry's goal is to achieve better coordination of care that will translate into lower costs, particularly for the high needs patients whose share of the health care costs are disproportionately high. In particular, the Ministry has stated that even a 10 per cent reduction in costs for the top 5 per cent of high needs patients would translate into $2 billion in savings annually that could be re-invested into other health care initiatives.

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MOHLTC's Strategic Objectives for Health Links

1. Ensure the development of coordinated care plans for all complex patients
2. Increase the number of complex patients and seniors with regular and timely access to a primary care provider
3. Reduce the time from primary care referral to specialist consultation
4. Reduce 30 day re-admissions to hospital
5. Reduce avoidable ED visits for patients with conditions best managed elsewhere (e.g. CTAS IV and V)
6. Reduce the time from referral to home care visit
7. Reduce admissions to hospitals
8. Ensure primary care follow up within seven days of discharge from an acute care setting
9. Enhance the health system experience for patients with the greatest health care needs
10. Achieve an ALC rate of nine per cent or less
11. Reduce the average cost of delivering health services to patients without compromising the quality of care

Pharmacy's Role in Health Links

As health professionals most knowledgeable in medication therapy management, pharmacists have an integral role to play in ensuring the success of Health Links. Research by the Ontario Drug Policy Research Network (ODPRN) indicates that complex patients fill an average of 40 prescriptions per year, for an average of 13 distinct medications.[6] It has been well established that the usage of multiple medications significantly increases the risk of adverse drug reactions and side effects.[7] For this reason, complex patients need effective medication therapy management in order to prevent these medication-related issues from occurring. Pharmacists are ideally positioned to provide medication management services for this complex patient population. In recent years, the Ontario government has introduced a number of pharmacy-based programs that aim to improve the safety and effectiveness of medication prescribing and use, reduce the incidence of smoking and increase immunization rates.

MedsCheck Annual – Introduced in 2007, this program is intended for Ontarians who are taking three or more medications for their chronic conditions. MedsCheck is a one-on-one 30 minute annual appointment with a pharmacist to review medications, help patients better understand their medication therapy, and ensure that medications are taken as prescribed.

MedsCheck Follow-Up – Patients who receive a MedsCheck are also eligible for a follow-up counselling session with a pharmacist. There are four situations that warrant a follow-up MedsCheck

- A patient is discharged from hospital
- A pharmacist's documented decision
- A physician or registered nurse in the extended class request
- A planned hospital admission

MedsCheck at Home – Introduced in 2010, the MedsCheck at Home program is for those patients who are unable to physically visit their community pharmacy in person due to a physical and/or mental health condition. The pharmacist visits the patient in their home, and conducts a comprehensive medication review and medicine cabinet cleanup, including the disposal of expired and unused medications.

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MedsCheck Diabetes – This is a focused medication review provided to patients living with type 1 or type 2 diabetes; it includes advice, training, monitoring, and education on diabetes. Pharmacists are expected to provide advice on overall therapy management in addition to diabetes, as many patients living with diabetes have other medical conditions.

Pharmaceutical Opinion – When a pharmacist identifies a potential drug-related problem at the point of medication dispensing or as a result of a MedsCheck consultation, he/she addresses the issue by making a recommendation to the prescriber. The goal is to improve and optimize medication therapy and reduce inappropriate drug use and drug wastage.

Smoking Cessation Counselling – Through this program, community pharmacists provide one-on-one support services and advice to ODB recipients who want to give up smoking. The program includes a readiness assessment in which patients may enroll as well as a first consultation and a number of follow-up counselling sessions over a one-year period. Since October 2012, pharmacists have also had the authority to initiate pharmacotherapy (Champix/Zyban) to assist patients with their cessation efforts.

Adapting/Renewing Prescriptions – In October 2012, the Ontario government passed regulations authorizing pharmacists to independently adapt and renew existing prescription to ensure continuity of care. Adaptations may include changing the dose, dosage form, regimen, or route of administration.

Influenza Immunization – Since October 2012, pharmacists in Ontario have been authorized to administer influenza immunizations to patients five years of age or older. Over 750,000 immunizations have been provided by pharmacists during the 2013-2014 influenza season.

Each of these programs/services is a tool that a pharmacist can use to improve the care of patients with complex needs. The MedsCheck program, in particular, is important in that it provides patients with an up-to-date medication list and an opportunity to gain a greater understanding of their medications. This becomes even more critical during a transition in care (i.e. hospital discharge) when the majority of medication-related issues occur. Evidence indicates that medication-related issues are one of the top causes of unplanned hospital re-admissions. Such re-admissions are massively expensive for the health care system; in 2010, more than 180,000 Canadians had an unplanned re-admission to the hospital within 30 days of discharge at a cost of $1.8 billion. At the same time, the majority of these re-admissions are preventable through effective discharge planning and medication reconciliation. By providing patients with timely MedsChecks at such transition points, pharmacists can prevent hospital re-admissions, thus helping to achieve one of the MOHLTC's objectives for Health Links. It is essential that a MedsCheck is provided in a timely fashion following a transition in care, ideally within seven days of hospital discharge.

One of the main challenges community pharmacists currently face in providing timely care is the lack of clinical information about the patient, including their episodes of care. Hence, it frequently falls on the patient to inform the pharmacist about their planned hospitalization or recent discharge. Care processes need to be more optimally designed to ensure better sharing of information among health professionals and between institutions and health care providers, including pharmacists. This is precisely where Health Links are ideally positioned to fill the gap and advance the quality of patient care.

As previously mentioned, high needs patients are typically elderly, have multiple co-morbidities, and are frequently admitted and re-admitted to in-patient settings. As such, the majority of these patients are also likely to be homebound and unable to visit their community pharmacy in-person. The MedsCheck at Home

program is therefore an ideal service to reach these patients, and to ensure they receive appropriate medication therapy management. By going into the patient's home, pharmacists are provided with a unique opportunity to observe the patient's medication storage conditions and their medication-taking habits. Part of the pharmacists' in-home service also involves cleaning out the patient's medication cabinet in order to remove expired and unused medications and thus prevent potential medication issues. It is important for pharmacists to be proactive in identifying patients who are homebound and would benefit from a MedsCheck at Home service. These patients may include those who frequently have caregivers pick up their medications and those who receive their medications via home delivery.

Research conducted by ICES has shown that diabetes is one of the most common chronic conditions for which high needs patients in Ontario are treated. There is ample evidence that most diabetic patients do not have their condition under control and need more extensive support, counselling, and medication therapy management.[8] The MedsCheck for Diabetes program provides a unique opportunity for pharmacists to play a key role in helping patients manage this chronic condition. A robust body of research has shown that pharmacist intervention in diabetes management can substantially improve patient adherence to medication therapy and surrogate health outcomes such as hemoglobin A1C.[9] It is important for pharmacists to provide diabetic patients with ongoing chronic disease management through regularly scheduled MedsCheck Diabetes Follow-up counselling sessions.

Since October 2012, pharmacists in Ontario have been authorized to administer influenza immunizations, thus providing them with another important mechanism by which they can prevent hospital admissions. Every year, over 20,000 Canadians are hospitalized due to influenza related complications, the majority of whom are elderly.[10] The top one to five per cent of patients are likely to be at particularly high risk for influenza-related complications by virtue of their complex health conditions. Pharmacists are encouraged to target these patients for influenza immunization, thus preventing more serious complications. This service could also be provided in the context of a MedsCheck Annual, MedsCheck Diabetes, or MedsCheck at Home service.

In order to target high needs patients for the provision of professional services, pharmacists need effective methods of identifying these patients. The following are examples of patient populations that are high need and would benefit from medication therapy management services:

1. **Receiving compliance packaging:** Blister packs and other compliance aids are typically provided to patients who have complicated medication regimens and/or have low adherence. A significant proportion of these patients are likely to be high needs.
2. **Taking multiple chronic medications:** Most pharmacy software systems contain the ability to run reports on patients meeting certain criteria. Pharmacists can use this software functionality to identify all of their patients who are on five or more medication who have not received an annual MedsCheck. This functionality can also be used to identify all diabetic patients who have not had a MedsCheck Diabetes.
3. **Receiving medication through home delivery:** These patients typically have complex medication regimens and are likely too frail to visit their community pharmacy. They are also the patients who could greatly benefit from a MedsCheck at Home service.
4. **Recently discharged from hospital:** As previously mentioned, a recent hospital discharge is a high-risk situation for medication-related issues. Effective medication reconciliation planning is essential to avoid these issues and associated re-admissions. Patients who are recently discharged can be

identified by their discharge prescriptions; identification of these instances should automatically prompt the pharmacist to deliver a MedsCheck service.

Getting Involved

The Ontario Pharmacists Association strongly encourages all pharmacists in the province to get involved with their local Health Link by reaching out to the lead organization in their region. As most Health Links are currently in the early stages of planning, pharmacists – as medication therapy experts – can serve as valuable consultants to Health Link teams on optimizing the care processes surrounding medication therapy management. Pharmacists can also take the opportunity to inform Health Links about the value pharmacists can offer in meeting the Ministry's strategic objectives, particularly related to preventing hospital admissions and re-admissions. Finally, pharmacists should be involved in case conferencing discussions with other members of the patient's health-care team, particularly for patients with complex medication regimens.

The Ontario Pharmacists Association has created a resource page for pharmacists interested in learning more about and/or connecting with Health Links. The website page contains background information on Health Links and contact information for the lead organization for each of the 47 Health Links that have been approved. As additional Health Links are added, OPA will ensure that the page is kept up-to-date.

The Association will continue to work with the Ministry of Health and Long-Term Care, the Local Health Integration Networks, and each of the Health Links to ensure that pharmacists are centrally integrated into this new primary care model.

For further information, please contact Ned Pojskic, OPA Manager of Health Policy at healthlinks@opatoday.com or visit http://www.opatoday.com/professional/resources/for-pharmacists/programs.

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