HIGH IMPACT PRACTICES

Evidence-informed practices in home and community care that result in better care, better outcomes and better value.

Connecting Northern and Eastern Ontario Community Expansion

Facilitating seamless service from the patient's place of residence, to hospital and back home

The 2014/15 Connecting Northern and Eastern Ontario Community Expansion (cNEO CE) project was an "adoption" project that enhanced previously piloted technology to improve the linkages between hospitals, the Community Care Access Centres (CCACs), primary care and home care service providers in North Eastern and North Western Ontario.

The North East CCAC identified the need for technology solutions to better share data across hospital and community services after implementing the Home First program, whose mandate was to reduce the use of hospital beds by patients who could be better cared for in alternate locations. In North Western Ontario, a system for sending electronic messages had already been established with the largest acute care hospital in North Western Ontario (Thunder Bay Regional Health Sciences Centre). However, there was the desire to expand electronic messaging to the twelve other hospitals in the region. The proposed solution for both areas was the cNEO CE project, which implemented the eNotification & Health Partner Gateway (HPG) technologies.

Whenever a CCAC patient presents to hospital, data is automatically sent (eNotification) to the CCAC's health information system called CHRIS (Client Health Records Information System). This electronic transmission includes information about a patient's admission and discharge to the hospital's emergency department (ED) and/or inpatient unit. Similarly, the hospitals instantaneously receive an eNotification in their Meditech health information system each time a CCAC patient presents to their ED.

Health Partner Gateway (HPG) is a secure web-based application that allows authorized health care professionals to access CCAC patient records in the electronic health record system, enabling them to view the care and services patients are receiving in the home. This includes but is not limited to: care coordinator notes, use of mobility aids, nursing/therapy service reports and long-term care home (LTCH) applications. Together, the eNotification and HPG systems allow a hospital to be notified when a patient has community care services. Once notified that a patient is receiving CCAC services, authorized hospital personnel can then view the patient's health record in HPG to obtain information to assist with care and/or discharge planning.

Subsequently, the cNEO CE project also rolled out HPG to professional staff in other health service provider organizations such as Family Health Teams, Community Health Centres, Healthlinks, and Nurse Practitioner-led clinics that could also benefit in their respective practices by having the ability to view the care and services the CCAC is providing to their patients.

BACKGROUND

In 2011 the North East CCAC (NE CCAC) partnered with Health Sciences North (HSN) and the Ontario Association of Community Care Access Centres (OACCAC) to trial an early version of eNotification. At the same time, the utility of Health Partner Gateway (HPG) for hospitals was piloted with Sault Area Hospital and subsequently rolled out to three more large hospitals in North Eastern Ontario in 2012.

Canadian Home Care Association
canadienne de soins et services à domicile
Advancing Excellence in Home Care

Integrated models of community-based care, seamlessly connect patients, both personally and electronically in real time, to their primary care provider, to their home care provider, to pharmacy services, hospitals and other social services as needed. The home care sector plays a vital role in making these connections happen. The Canadian Home Care Association is committed to identifying and facilitating the scale and spread of promising practices of integrated community-based care.

Similar to the North East, the North West CCAC (NW CCAC) had experience developing an eNotification-like solution at one hospital. They wanted to expand eNotification/HPG to all thirteen North Western hospitals as well as deliver Health Partner Gateway to primary care organizations. The corresponding paths taken by NE CCAC and NW CCAC provided the opportunity to collaborate on a standard solution that could be used province-wide.

Based on the successes of both initiatives, teams from the North East LHIN and the North West LHIN drafted a proposal for a project to expand electronic notifications to hospitals in North Eastern and North Western Ontario and to roll-out HPG to other health care organizations. The proposal was accepted as a cNEO CE expansion project and was supported and funded by eHealth Ontario via the Connecting Northern and Eastern Ontario program (cNEO).

The North East CCAC has 6 branch offices in Sudbury, North Bay, Sault Ste. Marie, Timmins, Kirkland Lake and Parry Sound, as well as 16 satellite offices across an area spanning 411,000 square kilometres. It serves 14,783 clients in their homes and communities.

IMPLEMENTATION

The implementation of the cNEO CE project involved a large number of partners, including hospitals, primary care, community service providers, two CCACs, OACCAC, two LHINs and other health service providers.

A good way to understand how eNotification and Health Partner Gateway are integrated is to consider the patient journey. When a CCAC registered patient goes to the emergency department, an eNotification message is automatically sent to CHRIS the moment the patient is registered in the hospital information system (Meditech). As a result, the CCAC Team and/or community care coordinator assigned to the patient is alerted when the patient has presented to emergency.

cNEO CE by the Numbers: A Quantitative Summary

- **# of users provided HPG: NE: 1187, NW: 364**
- **# of hospitals that have implemented eNotification: NE: 24, NW: 13**
- **# of Primary Care Groups/FHT HPG access accounts set up: NE: 56, NW: 22 ***

***As more primary care groups express interest in HPG, these numbers will grow.**

At the same time, the CHRIS system automatically sends an eNotification back to the hospital's Meditech system positively identifying the patient as having CCAC services. Some hospitals have electronic "white boards" in their Emergency Department(ED) to display ED patients' statuses; added to these white boards is an indicator identifying patients who are currently on care with the CCAC.

In addition to these useful system to system eNotification messages, NE and NW CCACs have provided hospital professional staff access to Health Partner Gateway allowing non-CCAC users to access CHRIS. Authorized hospital staff can check further details of the community care a patient is currently receiving.

HPG is also used to connect community service providers into this notification system. When CCAC staff sees a patient is in the emergency department, they can send a message via HPG to alert applicable community service provider(s) that the patient has presented to hospital. .

If the patient's journey continues to admission then the hospital's Meditech system sends another eNotification message to the CCAC's CHRIS system to alert the CCAC team/community care coordinator that the patient is now admitted to an inpatient unit. The hospital staff on the floor can see the patient has CCAC care and authorized hospital staff can access HPG to review services the patient is receiving at home. In the community, the CCAC care coordinator has the ability to assess the situation and make an informed and timely decision as to whether scheduled community services for the patient need to be put on hold. This decision is then conveyed seamlessly to the care provider permitting them to schedule and re-allocate resources accordingly.

The seamless communication of community care coordinators' assessment decisions enables real-time schedule and resource changes.

Once the patient is able to be discharged from the emergency department or inpatient unit, another eNotification message is automatically sent to CCAC's CHRIS system to alert the appropriate CCAC staff of the patient's discharge and the need for community services to resume. The CCAC care coordinator again assesses the patient's needs and sends a message via HPG to the appropriate community service provider to provide the required care.

Through all of these steps, the patient's journey can be tracked via his/her health record in CHRIS which is available to the associated primary care providers through HPG.

EVALUATION

From the initial pilot through to completion of the regional implementation, the cNEO project yielded clear benefits for patients, service providers, clinical (hospital) staff and care coordination staff, as well as other system partners (e.g. Family

Health Teams, Healthlinks, NP-clinics). These benefits included:

- improved access to in-home service plans;
- long-term care choices; and
- improved real-time communication of patient status related to hospital admit/discharge, which allowed for more timely collaboration and discharge-planning among hospital and CCAC professional staff.

This, in turn, contributed positively to both improved acute bed utilization and community provider capacity.

From the patient perspective, eNotification/HPG allowed for

- timely resumption of post-hospitalization services;
- initiation of new services as required;
- timely continuation of services in-hospital; and
- reduced episodes of missed visits in the community without notification of hospital discharge.

FINDINGS

Patients – In some instances, CCAC patients who are admitted as inpatients can receive the same (or similar) services in hospital that they were receiving in the community. Upon discharge, the CCAC care coordinator team receives an eNotification message signifying the patient is returning to their place of residence. By receiving information on the services the patient is receiving in real time, the care coordinator is able to follow up with the patient in a timely manner to resume and/or enhance services based on post-discharge care needs. The end result is the use of technology for improved communication among healthcare partners to provide a seamless provision of services from the patient's place of residence, to hospital and back home.

Community service providers – Timely information pertaining to patient whereabouts gives service providers the ability to increase community capacity with efficient and effective allocation of their resources. Prior to the cNEO CE project, when a patient was admitted to hospital, the care coordinator would occasionally receive a phone call from the patient, their spouse, or a relative informing them of the admission. Most of the time, however, this information was not communicated. This was a stressful situation that was very time and resource consuming. Under the cNEO CE project, an automatic eNotification message from hospital to CCAC is sent signifying the patient is in hospital. Subsequently, CCAC notifies the service provider via HPG who can then re-allocate resources to other patients. The end result is fewer instances of "not-seen-not-found", better communication, reduced stress, and more efficient use of time and resources.

Primary care providers – HPG was made available to care providers belonging to primary care groups e.g. Family Health Teams, Nurse Practitioner-led clinics, specialized clinics etc. Through HPG these groups can now easily identify who the primary community care coordinator is for a patient in order to make direct contact and discuss patient care needs. Primary care practitioners can also see other valuable information including long-term care (LTC) home choices, current services in place such as slow-paced rehabilitation and convalescent care programs. With this information, primary care providers are able to become more informed about the patient care regimen as well as collaborate with community care coordinators to make better-informed decisions about the patient's plan of care.

Hospital partners – The utilization of eNotification and HPG result in earlier collaboration and better- informed decision-making among hospital and CCAC professional staff for integrated discharged planning. Given that hospital partners have timely access to information on mutual patients, seamless transitions within the health care system are supported, which includes primary care practitioners as stated above. Furthermore, geriatric emergency management (GEM) nurses based in ED utilize eNotifications and HPG to enhance the patient's supportive care plan, building on the existing CCAC care plan which may include additional Community Support Services (CSS).

Care Coordinators (community and hospital-based)

Having eNotification in CHRIS provides clarity regarding patient discharges from hospital. eNotification not only informs CCAC professional staff of relevant discharge information, but also provides valuable information regarding the discharge "disposition" (or status on discharge). This is especially valuable when a patient has passed away in hospital. With this information the care coordinator is able to act with appropriate compassion and sensitivity when communicating with the patient's loved ones.

For ED-based care coordinators, eNotifications are displayed on the Meditech Tracker in the ED, which is a real time patient location and status board. This allows for immediate intervention by the collaborative team to avoid admission where possible. Supports can be put in place to transition patients back to the community once acute needs are met. Having eNotifications on the Meditech Tracker also facilitates early identification of Medical Doctor (MD) orders in ED for post-hospitalization treatment planning purposes. This may include care and services from community nursing and therapy providers, medical equipment and supply vendors, and pharmacies.

"As we use the system and see the new data, we continuously see areas where we can make further improvements to how NE CCAC and hospitals communicate with each other as partners in the continuum of care."

–Kerri McMaster, NE CCAC Care Coordinator, cNEO CE Business Lead

With eNotification informing CCAC staff of when the patient is discharged from service, expedited retrieval of durable medical equipment (e.g. hospital bed) and/or nursing-related equipment (e.g. CADD pumps) from the patient's place of residence is possible. These resources can then be quickly reallocated to other patients in need. eNotifications have also reduced waste such as the hospital-based Care Coordinators' need to review admission lists by unit/hospital.

CHALLENGES

The following challenges were outlined.

1) As integrating technologies become part of the standard operating processes, contingency plans must ensure continuous access in the case of emergencies. These plans should address how to revert to (pre-eNotification/HPG) past practices as required.

2) New technical improvements come with ongoing maintenance and operating costs. Project stakeholders should take this into consideration when planning for long-term sustainability.

3) eNotification provides information/data not previously received by the NE CCAC (i.e. there was no standard means of being informed of patient traffic to/from hospital). Now that this data is being received for all CCAC patient visits to hospital, it has become necessary to put business processes in place to utilize the data. The end result is streamlined communication which saves time over all. However, the volume of eNotifications received must be well managed. The technology has been deployed; now the ongoing work begins to ensure the technology is used to its maximum potential for improved processes and communication among healthcare partners.

4) The new solution provides a wealth of new data not previously available. For example, there is now definitive data on readmissions that can be used to calculate the average number of readmissions of CCAC patients within 30 days of hospital discharge. However, comparisons cannot be made to what was happening prior to eNotification since there is no definitive historical data. A hypothesis can be made that eNotification enables actions to avoid hospital admissions, but there is no baseline data to prove this objectively.

CONCLUSION

The cNEO CE project has without question enhanced the ability of care providers and coordinators to ensure seamless service with regard to patient care. Some of the benefits of the eNotification system have been:

- better utilization of resources;
- significantly reduced length of time between discharge from hospital and resumed CCAC care;
- giving a voice to patients who cannot speak for themselves (e.g. dementia) by automatically alerting staff of their visits to hospital.

Through the collaboration of the NE CCAC and NW CCAC, a standard solution has been developed, solidifying the impact and importance of effective health system integration.

"eNotification has transformed the way my work is done for the better. It has significantly reduced the length of time between discharge from hospital and resumed CCAC care. No patient is missed."

– Sunnie Robertson, NE CCAC
Care Coordinator, Sault Area Hospital Emergency Department

THE CHCA WOULD LIKE TO EXTEND A SPECIAL THANK YOU TO:
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