Clinical Referrals Are a Critical Part of the Transition Process

Orion Health White Paper
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Introduction

The transition of patients between care settings is an important function within healthcare organisations. An ideal system ensures patients are transitioned in a timely and successful manner along their journey that will provide a positive experience. Clinical referrals are a critical part of this transition process, and therefore the patient's journey, enabling clinicians to work together to provide individual patients with the right care at the right time.

A clinical referral is defined as a transfer of patient care from one clinician to another and is a vital document that enables clinicians to communicate and work together to provide the most appropriate care. The aim of clinical referrals is to ensure patients are referred to the right healthcare service, with the right information, at the right time, and that they receive the right response. Having an appropriate clinical referral can improve the transition between primary care providers and secondary care specialists; increasing the legibility and accuracy of referrals reduces errors that occur through incomplete information or lost referrals.

Historically there have been a large variety of paper-based processes used to refer patients. An example of this is a referral from primary care (GP) into a secondary care service (hospital) for a specialist appointment. Despite the best intentions, paper can get lost or mixed up and unfortunately there have been cases where this has had a serious effect on the on-going care of patients. Healthcare providers are now facing challenges around enabling the safe and timely transition of patients and their relevant healthcare information, especially in the context of clinical referrals. In the past, paper-based referral systems were used, this included paper letters, fax machines and telephone calls. Paper-based systems lack visibility and traceability, whilst hospitals and primary care facilities with disconnected electronic health record systems (EHRs) fail to collaborate or provide a closed loop for patient handovers. As a result, patients can miss out on receiving the appropriate treatment at the right time. Also there is considerable time spent on the administrative effort to achieve visibility over the referral process and referral patterns across care organisations.

How could the paper-based referral system be improved? By providing an electronic end-to-end referral solution to ensure patients are transitioned in a timely and successful manner along their entire healthcare journey. This would help facilitate efficient, coordinated care and reduce waiting times for patients to be seen by a clinician, especially when referred to secondary care specialists.

In today's healthcare environment, providers—especially in primary care—face challenges navigating the complex referral process. Having certainty as to a referral's status and ensuring patients receive the best possible appointment with the best possible clinician, in a timely fashion, can be difficult. Unnecessary delays and missed appointments quickly lead to increased waiting times, poor care outcomes and frustrated care providers. A 2016 Commonwealth Fund Study showed that 30% of patients referred to specialists in Canada waited two months or more before their appointment, which is a concern for all stakeholders in the process. An effective clinical referral system should be designed to support care providers and patients via a trusted electronic referral management solution for use across the entire care continuum.

An effective electronic clinical referral solution replaces existing paper and fax based referral systems, integrates with any relevant existing electronic systems or processes, and provides safe clinical care handovers from one provider to another. This is especially needed to improve the information transfer between primary care and secondary care providers, while also serving as a vehicle for improving the basic referral process. The solution enables care providers and provider organisations to manage the overall process, reduce duplication, remove barriers and errors, and better plan the allocation of services.

A clinical referrals solution can integrate with a regional EHR or Health Information Exchange (HIE) which can then enable it to leverage the benefits of comprehensive access to the patient data that an EHR provides. Additionally, a clinical referrals solution can be deployed as a stand-alone solution, enabling the transfer of information between providers even where an EHR is not available.

What can we learn from Alberta, Canada where they have implemented a successful clinical referrals system?

Canada has a single-payer healthcare system—similar to other Commonwealth countries—where the government covers basic healthcare costs for all their residents.

The four key lessons learned from Alberta encompass how to:

- Put tools in the hands of clinicians to help them understand their patients as a population
- Connect historically competitive organisations to achieve patient-centred collaboration
- Remove waste caused by duplicate or uninformed actions
- Manage patient needs in a proactive, cost-effective way

What problems are they solving?

Episodic care and fee-for-service reimbursement has physicians treating sickness and symptoms, which fails to manage the overall health of patients and populations. The episodic approach does not address the issue that the sick can get sicker, that patients can exhibit co-morbidity and chronic conditions at the same time, and that there's a constantly increasing number of people requiring care. Providers know that managing population health proactively is a superior approach to reactively treating symptoms and sickness, but there is little to no understanding of risk management across populations, no incentive to care, and no agreement on the distribution of services across healthcare systems.

However, as payment and delivery models are changing, so do risks. Under a fee-for-service system, providers bear little risk because in all (ordinary) cases, their care and treatment activities will be reimbursed. Their main data-related activity is to record patient encounters in enough detail to justify the services that are billed. Under a value-based reimbursement system, providers' compensation is not directly linked to services provided, so they take on the risk of determining the most cost-effective methods of keeping their patients healthy. A richer set of tools is required to help providers focus on identifying patients that need care-either as a preventive measure or because their health is trending negatively.

It is well understood in the healthcare industry that value-based reimbursement systems bring many health outcome benefits, but there remains many complex obstacles that make meaningful change difficult and uncertain. While complex, the problem can be summarised as: "a lack of shared information, insights, and plans that prevent collaboration, coordination, communication, and effective care delivery."

What is driving Alberta's success?

In Canada, Alberta is a solid example of a healthcare system that has already encountered the challenges of transforming to a value-based reimbursement system and has executed changes that have resulted in measurable improvements in their population's health.

Alberta is home to Orion Health's largest HIE implementation in North America, called Alberta Netcare. It has been in production since March 2006. Results taken in June 2016 has 51,000 users, including approximately 5,000 concurrent users at any given time, servicing a population of over 4.1 million people. On average, 2.5 million patient records are accessed per month via the HIE.[1]

Clinical Integration

Canada's provinces are single-payer, socialised systems where priority of care and wait times for services are the driving factors for access to, or delivery of, care. The improvement Alberta has made resulted from greater efficiency and availability of data that supports better decision-making and improved wait times.

Ten years ago, Canada's provincial payers increased the focus on effective spending and equitable resource allocation that drove the need for a population health management approach. Realising that information sharing was a necessity for coordinating care, Alberta invested in the connectivity between their isolated clinical systems, where patient data was stored. Connecting the many disparate EMRs, lab systems, and pharmacy systems not only brought together each patient's information into a single view, but enabled seamless bi-directional information exchange so that providers could send and receive critical updates and tasks for each patient. This team care model is the underpinning for effective care coordination and population health management.

Population Health Management

Once robust data exchange was achieved across the region, a program was implemented for physicians to proactively manage the health of their patient workload. Physicians who are members of a Primary Care Network (PCN) have a fee per patient in the their formal panel, that is given to the PCN to be used for enhancing Population Health in the region. Physicians in the region have employed nurse care coordinators to monitor the health and activities of these patients. The nurse care coordinators use practice-level dashboards to identify which patients have care gaps, and proactively intervene with those patients to help them manage their own care needs.

Orion Health Clinical Referrals deployed and named eReferrals

In July 2014, Alberta further matured their population health management capability by adding electronic inter-facility referrals across the province using the Orion Health Clinical Referrals product. Most public service and healthcare systems are still heavily reliant on paper-based referrals and faxes, which has many known problems and limitations: patients experience needless delays in being seen and receiving treatment, and there are marked increases to administrative burdens. Using electronic referrals (eReferral), Alberta physicians can send other caregivers specific referrals that are needed for a patient, along with electronic documentation from the patient's medical record. The referring physician can track the status of the receiver's actions to make sure that the patient's needs are met and also track outcomes. eReferral helps administrators find bottlenecks and delays

[1] www.albertanetcare.ca/Statistics.htm

in getting care, and can help a patient get advice quickly from a specialist, rather than waiting months to see one. eReferral not only ensures coordination of care, but also reduces duplication and unnecessary delays in delivering a cohesive care experience.

Outcomes and Use Cases: Before and After

Before Canada's large-scale data exchange reforms, Alberta experienced the difficulty of practitioners having too little time, information, or clinical support to engage with each complex patient. Alberta has grappled with the episodic nature of care, where caregivers focus time and resources on the patients who present needing treatment. At the same time, the patients who are the sickest consumed a disproportionate level of healthcare services.

However, since data exchange has been established throughout Canada, there has been a measurable improvement in patient outcomes that is attributed to Alberta's use of the Orion Health suite, including:

- Reduction in duplicated test orders– since 92% of laboratory and diagnostic imaging reports are available in the system
- Improved ordering of follow-up tests for the same reason
- Better medication management due to 96% of dispensed medications being available within Alberta Netcare Portal
- Lowering of population risk in several areas—including impressive results for diabetes.
- Identifying non-compliant, high-risk patients across a total population—or, more likely, sub-populations at the provider level—has had a dramatic impact on finding, engaging and improving patient outcomes. This is done most frequently by the primary provider or their staff analysing a summary report and then choosing the patients, ranked by most in need. This ability is revolutionary because it allows medical staff to intervene before their patient has a serious problem that could result in hospitalisation.

Measurable ROI

As a part of the Alberta-wide electronic health record (EHR) effort, the registry has the capability to pull from multiple data repositories across the province. In the first year of implementation, the Edmonton regional registry collected information on 8,034 diabetic clients. More than 100 clinicians, practicing in 22 clinics, are using this registry.

The disease registry helps clinicians view all the components of a client's condition including blood pressure, body mass index, and their most recent lab results. By helping to ensure these areas are reviewed at each visit, providers can better track client progress and make adjustments immediately when they become necessary.

Specific outcomes of the Chronic Disease Management project are impressive. These statistics were measured between years 3 and 4 of the program (2006-2007):

FIGURE 1: Outcomes of Alberta's Chronic Disease Management Project[2,3]

[2] http://www.albertanetcare.ca/documents/14-12-eReferral_Newsletter.pdf

[3] http://www.albertanetcare.ca/documents/14-01-eReferral_Newsletter.pdf

Changing Provider and Patient Behaviour and Shortening Wait Times

Alberta's adoption of technology, specifically a combination of EMRs and Community Health Records, drove provider and patient behaviour change and improved wait times for patients. Some examples of improved efficiency and outcomes are as follows:

- Wait times were reduced by as much as 90% in some cases
- 31% of Alberta Netcare Portal users indicated that eReferral reduced the overall wait time
- In 42% of cases, a full in-person referral appointment was avoided after an electronic advice request and response via eReferral
- Chronic Disease Management tools for providers and patients allow proactive patient management and patient engagement
- Modern collaboration using methods and tools standard in other industries transformed the patient's care experience while reducing waste

One reason for this is because electronic forms have built-in capabilities that ensure that all necessary information about a referral is completed before it can be submitted. For example, having an incomplete referral can cause delays of up to six weeks for hip and knee replacement surgeries.

What can we learn from Alberta?

Alberta's improvements and resultant increased efficiency—most notably its actual decrease in wait times—is an example of positive change that is possible in other health systems in terms of decreased spending. In order for other health systems to attain the level of efficiency and benefits that Alberta has, we recommend the following:

Embrace reform elements that align financial compensation with both patient and population quality and health outcomes. With the move from fee-for-service to value-based reimbursement and shared risk arrangements, patients, providers and payers have shared goals of spending less and accomplishing more. This alone is a massive topic with many nuances, but at its core, spending dollars on what works must be a foundational precept.

Join other industries (financial, retail, entertainment, etc.) in using technology effectively. Paper charts and faxes are methodologies from the past and create waste.

Rework the provider, payer, and patient roles, allowing each member of the care team to use their expertise and then delegate and assign accountability and action where it most belongs:

- Providers practice medicine and work with patients as people. Providers benefit from at-hand patient data and evidence-based care guidelines.
- The full care team benefits from coordinated activities and continuity in actions through elegant handovers at each transition point. Providers are also skilled at assessing clinical risk.
- Payers focus on what they excel at: assessing financial and clinical risk, analysing data, managing finances, adopting and effectively using technology, and balancing needs of millions of people for the collective greatest good.
- Patients, when informed and motivated, are very good at caring about their own health, self-management and longevity. Patients and providers need to focus on maintaining or improving their health, rather than reacting to becoming sick or injured.

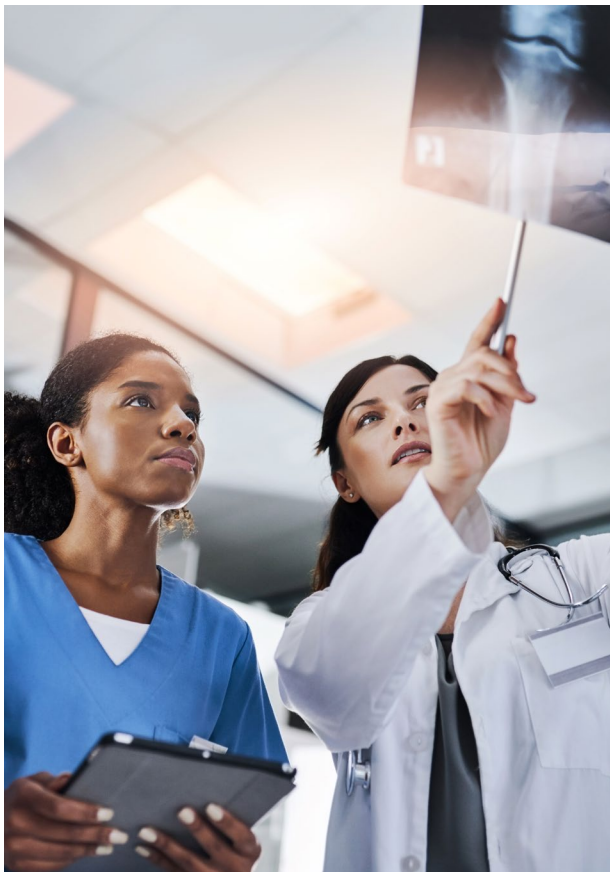
Understand the link between individual patient care and population care.
Patients are individuals and must be engaged and treated as such. At the same time, every care team member is equally responsible for his or her total assigned population. Finite resources must be allocated with the individual patient and the population in mind to have the desired total effect of: lowering spend while improving outcomes. Population Health Management does not ignore the patient, but rather looks at every single patient, instead of just those who happen to make an appointment.

Budget for a dip in revenue when moving from a fee-for-service to a value-based reimbursement model and plan to make the transition as quickly as possible.
When making this transition, many providers expect to see a dip in revenue as they are providing the same level of services, but not getting reimbursed for each and every service. The revenue will continue to decline until they improve their processes enough to benefit from the value-based reimbursement model of compensation. However, once transitioned, providers may expect to see more patients per month as they become more efficient, and actually see the potential for higher reimbursement over the long term.

Alberta has implemented a successful clinical referrals system

Informed and connected care teams deliver better care with less waste. A key factor in creating this is the aggregation of patient data and making it available at the point of care. This empowers patients with quality information and directions they can follow and connects care teams, including patients, with care coordination tools such as communication, care plans, and educational information.

While Alberta is concerned with controlling both wait times and costs, they do have finite resources that must be applied to a near-infinite set of needs (e.g., there are many more Canadians needing MRIs compared to the available MRI facilities' capacity). In Alberta, this imbalance of needs over resources is most clearly seen in wait times for certain procedures. Wait times remained far too high and required providers to make more informed decisions when applying resources. Through their use of Orion Health technology such as Clinical Referrals, Clinical Portal, and Coordinate, Alberta has been successful in shortening wait times for individual patients, with macro-level improvements in outcomes and patient health. Alberta's effective use of healthcare integration technology shortened wait times through eliminating gaps in care and has many parallels and lessons to draw from.



A Summary of Alberta Netcare EHR Statistics as of June 2016 [4,5]

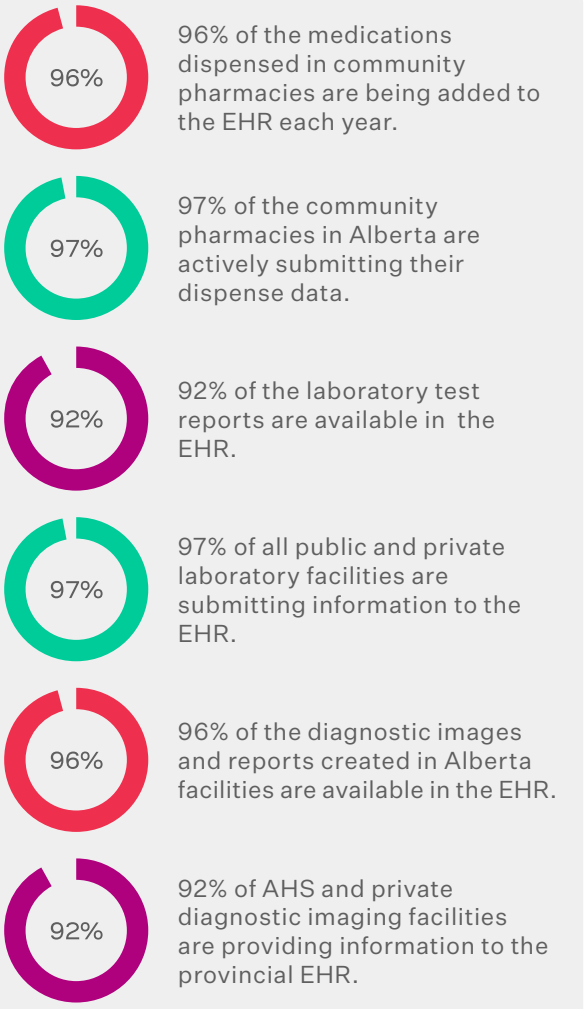


FIGURE 2: Information Availability (Approximate Values)

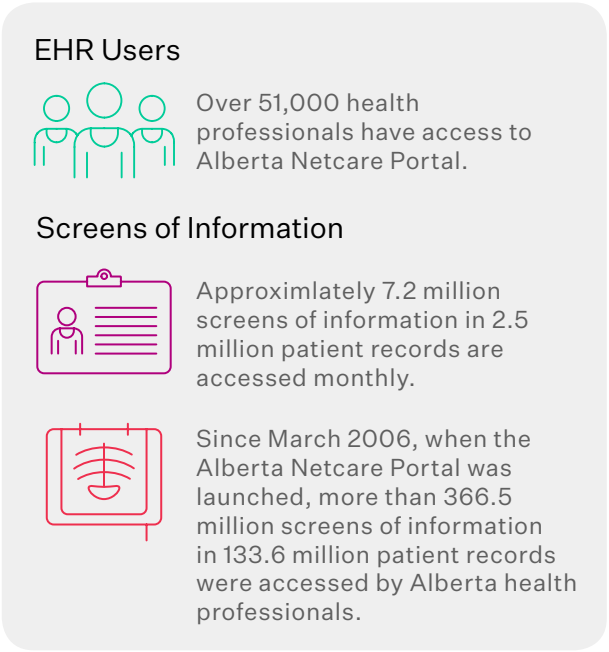


FIGURE 3: EHR Users and Screens of Information

[4] http://www.albertanetcare.ca/Facts.htm

[5] http://www.albertanetcare.ca/Statistics.htm

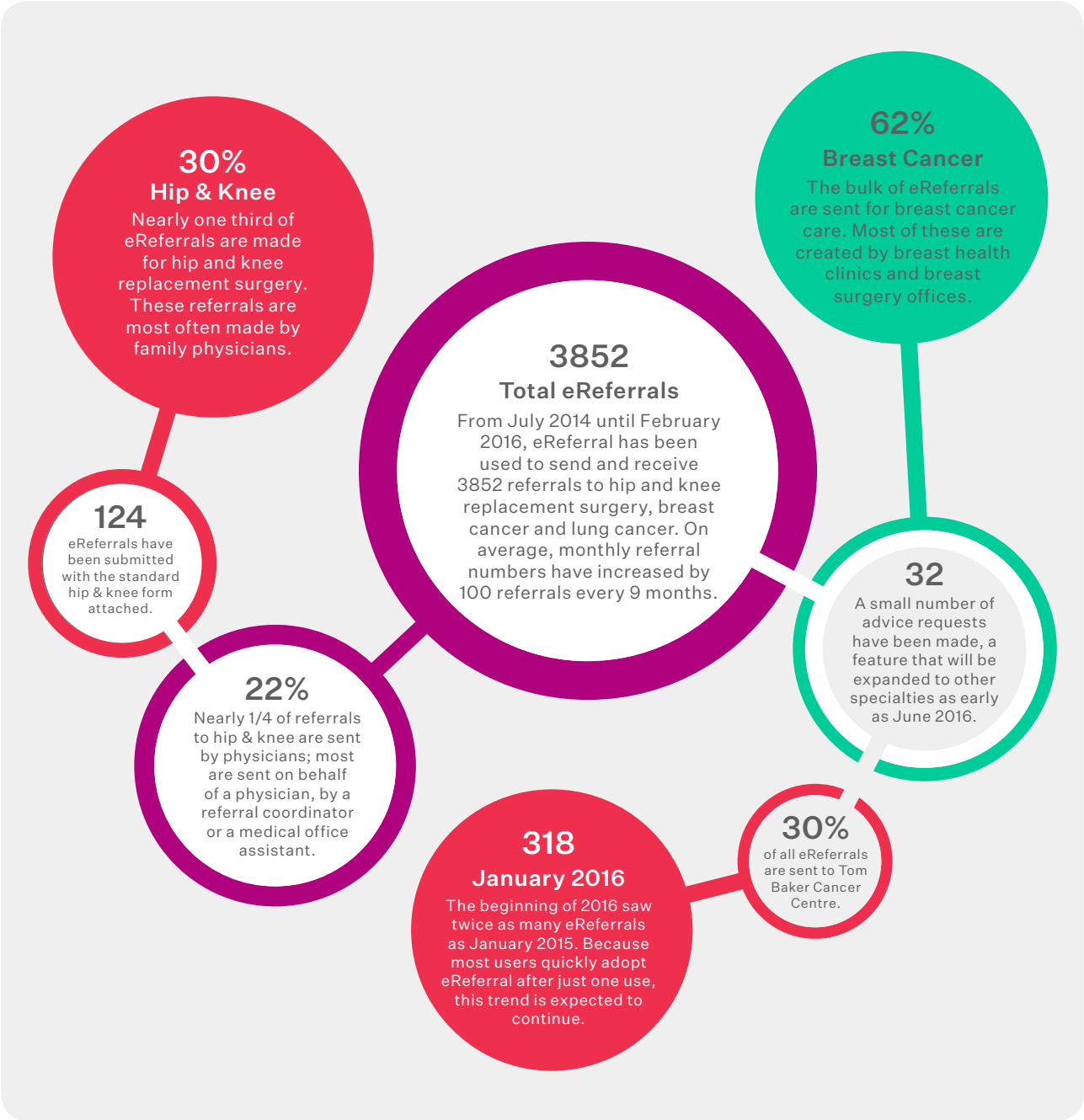


FIGURE 4: A summary of eReferral statistics as of July 2016[6]

What are the benefits of Alberta's eReferral solution?

It enhances provider to provider communication about a shared patient. And it also facilitates the process for primary care and secondary care to work together to effectively manage a shared patient. The solution enables both secure guaranteed transfer of a patient's referral from primary care to specialist care, specialist to specialist referrals e.g. surgeons to cancer care referrals. Plus in some cases, the simpler process of enabling an advice request. In Alberta this is an effective way for a primary care physician (PCP) or GP to seek advice from

[6] http://www.albertanetcare.ca/documents/eReferral-by-the-numbers.pdf

a specialist. For many specialties such as dermatology, experience shows that advice requests can be used to manage up to 40% of what would otherwise be a full referral, thus significantly decreasing wait times. The Canadian solution is not limited to just PCP-to-specialist referrals either. Its ease of configuration allows for numerous other interactions such as specialist-to-specialist, and PCP-to-Allied Health providers.

The Alberta clinical referral system enables substantial decreases in wait times for the first specialist visit. This result comes from improved communication and time savings, and the ability for the PCP to seek advice from the specialist, without needing to send the patient, in person, to an unnecessary appointment. Additionally, specialists report improved ability to identify the questions being asked by the PCP, and so are better equipped to judge the appropriateness of the referral, safely prioritising it based on an accurate understanding of the patient's condition.

Enhanced referral workflows

By virtue of its fully integrated Business Process Management (BPM) tools, the clinical referrals solution supports care models and workflows that are easily configurable to suit local requirements. BPM enables an agile approach to referral workflows, both for administrators and end users. Administrators can establish workflow processes that closely fit the needs of the healthcare organisations involved, and end users have a comprehensive range of options throughout the process; from initiation of the referral to receipt or triage, specialist review and eventual follow up.

Improved clinical decision making is also supported, via access to the longitudinal patient health record or EHR. This greatly improves the ease for the physician when generating a referral to access the relevant and complete information about the patient they are generating a referral for. To enhance convenience and ease of use, the solution supports single sign-on and context launch from EMRs and stand-alone operation for clinicians that do not have access to an EMR.

Enhanced Care Coordination

Providers and patients experience poor care coordination as a patient's appointment might be with the wrong specialist. Clinical Referrals ensures referrals are sent to the right specialist and the appropriate facility and/or specialist provider based on search options, such as provider role, location, and current waiting times. This significantly reduces the number of referrals sent to the wrong provider and thus, improves care coordination.

Referrals appropriate to the needs of receiving specialty

Configurable form templates enable tailoring of each referral template to the appropriate clinical service; this enables increased accuracy and reduced omission of information in the referral. The PCP now knows exactly what information the receiving specialty service needs in order to assess and manage the clinical referral. There is no limit to the number, nature, and range of data capture that can be implemented in the configurable forms. Pre-population of data reduces duplicate data entry work, and the forms bring a wealth of features such as smart fields that automatically calculate triage scores. Other features, such as the use of mandatory fields, help ensure referral completeness.

Referral Status Awareness

Each step in the process of taking a referral from generation through triage, specialist assessment, appointments, specialist visit, follow up and ultimately return to the PCP involves a change in the referrals status. Dashboards provide clinicians with metrics as well as the ability to see lists of patients in all the statuses of relevance to that clinician.

Additionally, there are plans for notifications to be set up to tell providers of key events of interest such as when their referral has been triaged or when a patient attends an appointment. Physicians will value this type of knowledge about their patient's progress in a system that is otherwise very difficult to track–for both physicians and patients.

Alberta Health Services reports that amongst a range of benefits, their clinical referral solution helps primary care providers have a clearer view as to the wait times for their patients. The tracking features of the solution help bring visibility to the referral's status at any point in the referral workflow, such as when a submitted referral has been accepted and booked.

Visibility of referral status

In the paper-based world, prior to deployment of clinical referrals, hip and knee clinics in Alberta reported an average of six weeks additional wait time for an appointment when a referral is incomplete. With the deployment of clinical referrals, the referral now includes all the required information. The back and forth with the referring provider is significantly reduced.

Reduced wait time with complete referrals
When a patient is waiting for specialist care, occasionally their condition deteriorates. Alberta Health Services particularly value the ability of each clinical referral to be updated at any time with new clinical information. Updates may trigger a higher priority for the patient, enabling the system to respond to new information and the patient receiving specialist consultation sooner.

In Summary – Clinical Referrals

Orion Health Clinical Referrals is an end-to-end electronic referral solution that creates a living document for safe and rapid clinical transitions. Clinical Referrals supports healthcare providers through a trusted electronic referral solution for use both within the hospital, and across the whole community. This solution replaces existing paper-based referral systems, while building on any existing electronic referral processes, to create living documents for safe and rapid clinical transitions. By integrating information across the whole health system, standardising referral templates, and simplifying workflows, the healthcare provider can immediately view relevant referral information, reduce duplication and errors, and better plan the allocation of healthcare services.

Clinical Referrals is a cost-effective way to transfer information from one provider to another. In traditional models, this key transaction is often a source error and delay for patients and clinicians, and the process opaque for provider organisations. Clinical Referrals makes that process open, easy to manage, and flexible to deliver. Clinical Referrals delivers value rapidly in its ability to get referrals into a healthcare organisation, then process and manage them while the referral transits that system.

Clinical Referrals has a focussed product strategy to 'provide the link' between primary and secondary care, enabling the patient to get the right care in a timely and safe manner. Clinical Referrals can route referrals from primary into secondary, and within the four walls of secondary and tertiary care, to deliver faster and safer transitions. Orion Health Clinical Referrals can help your organisation provide an end-to-end electronic solution that creates a living document for safe and rapid clinical transitions.

Sandra Oldfield RN - Biography

Sandra is a Senior Clinical Consultant for Orion Health. She has had a diverse career with exposure to multiple organisations at different levels where she brings her drive, energy, relationship building, communication skills and leadership qualities to each role. She has gained broad experience in managing both diversity and change, as well as developing and sustaining relationships with internal and external parties for example government agencies and hospital boards.

She is an experienced nurse and clinical systems specialist with skills and experiences developed in various roles within both the public and private sector. Sandra trained as a Registered Comprehensive Nurse then worked at Middlemore Hospital, Counties Manukau District Health Board (DHB) in Auckland, New Zealand. She moved to Air New Zealand as a Flight Attendant with a focus on Occupational Health and Safety. Sandra returned to Counties Manukau DHB as a Clinical Systems Specialist Consultant, during this time she achieved a Post Grad Health Informatics diploma from the University of Auckland.

Sandra has been with Orion Health for over ten years, she is currently a Senior Clinical Consultant. She provides a vital connection between clinicians and the Orion Health product development teams. Sandra is responsible for the Coordinate solution, where her knowledge of community care coordination and transitions in care are utilised. She is also part of the Clinical Risk Working Group that ensures clinical risks are mitigated from Orion Health's healthcare IT product solutions. Sandra has a deep understanding of the clinical software solutions that Orion Health develops and can articulate how Orion Health's integrated suite of products improves the patient experience by providing clinicians with the real-time cognitive support they need to make the best possible decisions at the point of care within their healthcare organisations.