IMPROVING CONTINUITY OF CARE: KEY OPPORTUNITIES AND A STATUS REPORT ON RECOMMENDATIONS FROM THE 2013 *CONTINUITY OF PATIENT CARE STUDY*

April 29, 2016

TABLE OF CONTENTS

FOREWORD

Continuity of care is vitally important to the welfare of patients and to the effective functioning of Alberta's healthcare services. This study focused on progress towards implementing the recommendations from our 2013 Continuity of Patient Care Study. Perhaps most importantly, this review intensified the discussion with stakeholders about what needs to happen to effect substantial rather than incremental change.

The HQCA has identified key opportunities for stimulating the greatest improvement in continuity of care to the greatest number of patients. We have provided advice on making the best use of proven tools to create reliable systems and processes that support ideal patient care. These opportunities will also facilitate greater participation of patients in their own care.

Considerable effort has been directed by many stakeholders towards implementing the recommendations from our 2013 study. Our review of progress to date has revealed some significant barriers, highlighting the complexity of intertwined systems delivering healthcare services to our population. Still, some excellent work is underway and deserves to be acknowledged. Recognition of the gaps and a desire to continuously improve patient care is propelling people and organizations forward in making changes.

A steady hand and commitment to a focused path can bring Alberta's healthcare system to a state in which continuity of patient care is supported and enabled.

Our thanks go to the many stakeholder groups and individuals who invested considerable time, effort, and goodwill in this review.

Dr. Tony Fields, HQCA Board Chair
Edmonton, Alberta

INTRODUCTION

The continuity of care opportunity

Continuity of care has been defined as the degree to which a series of discrete healthcare events is experienced as coherent and connected, and consistent with the patient's medical needs and personal context.[1] From the patient's perspective, continuity is the experience that care is integrated and co-ordinated over time; from the provider perspective, it is the experience of having sufficient information about a patient to provide appropriate care that can be recognized and followed by other providers.[2]

There are three types of care continuity across healthcare settings acknowledged in the published literature: relationship continuity, management continuity, and information continuity.[2]

Relationship continuity can be viewed as the ongoing therapeutic relationship between a single healthcare provider (or a small team of healthcare providers) and a patient; it fosters improved communication, trust, and sense of responsibility.[3] In an ideal world, patient-centred healthcare includes computer-based guidance and communication systems to support patient-provider relationships.[4]

Management continuity refers to the communication of facts and opinions across team, institutional, and professional boundaries, and between providers and patients.[5] When done well it enables everyone involved with a patient's care to have a shared understanding of the goals and the plan to achieve them.

Information continuity is the availability and use of information on past events and personal circumstances to support appropriate care for an individual patient.[1] Information may be documented in patient records, or exist as accumulated knowledge in the memories of healthcare providers.[1] Information continuity can be improved through centralized electronic health record systems designed to make information easily but securely available to providers and patients.[1] Moreover, it has been shown that a shared electronic health record and systematic notification methods improve information continuity between providers, which in turn improves co-ordination of care.[6]

All patients benefit when the three types of continuity of care intersect. The greatest benefit, however, can be seen for those patients with multiple co-morbidities or time-sensitive conditions. The report recently released by the federal Advisory Panel on Healthcare Innovation (APHI) cites evidence that integrated care, where "interprofessional teams of providers collaborate to provide a coordinated continuum of services to individual patients, supported by information technologies that link providers and settings," results in lower rates of hospitalization for patients, increased preventive services, and lower costs per person.[7]

Background

In December 2013, the HQCA published the *Continuity of Patient Care Study,* which examined multiple breaks and delays in the co-ordination of care encountered by one patient, which were felt to represent the experiences of many Albertans as they move through the healthcare system.[8] The study identified several system-wide issues that increased the risk of patients experiencing a break in their continuity of care.

To address these issues, the HQCA made 10 primary recommendations aimed at various parts of the healthcare system, supplemented by three recommendations concerning the death investigation process

of the Office of the Chief Medical Examiner. All of the recommendations were accepted by the Minister of Health at the time.

Following the release of the *Continuity of Patient Care Study,* the HQCA continued to explore the issue of continuity of care:

- The HQCA patient satisfaction and experience surveys conducted over many years have consistently identified a negative relationship between poor co-ordination of care and healthcare access, quality, and patient experience. In the latest survey (December 2014), only half of survey respondents rated as very good or excellent how effectively healthcare professionals co-ordinate efforts to meet patients' needs. Moreover, many respondents said their primary care physician was not informed of results from treatment or tests they received from other care providers.[9]

- *Patient Perspectives on an Electronic Referral System for Alberta*: The HQCA completed a study in 2015 of patients' experiences with the referral process in general and their perspectives on an electronic referral (e-referral) system specifically. From the patient perspective, an ideal referral process should be transparent, with access to information throughout all steps of the process for the patient and providers. Implementation of an electronic system that supports the referral process and the ability of patients to see their own referral status through a confidential portal were identified as highly desirable by the people who participated in the project.[10]

Purpose of this report

In October 2015, the Deputy Minister of Health requested the HQCA follow up on its *Continuity of Patient Care Study.* The HQCA was asked to provide an assessment of progress made towards implementation and to provide insight to bringing the recommendations to a conclusion, taking into account the multiple stakeholders involved and the complexity of the recommendations.

Methodology

The HQCA collected information for this report from numerous sources:

- Documents provided by key stakeholders
- Individual interviews
- A multi-stakeholder meeting
- Review of relevant literature
- Documents provided by organizations (e.g., regulatory agencies, professional associations, and healthcare organizations in different jurisdictions)

Status reports provided by the organizations originally identified in the 2013 study, and which had been compiled by the Ministry of Health, were reviewed. Key individuals from organizations identified as primarily responsible for implementing each recommendation were asked to provide an update on progress made and any supporting documentation.

Individual interviews and a multi-stakeholder meeting were then held to discuss the status of implementation, gather perspectives on barriers to implementation, and solicit suggestions on how to advance the work required to fulfill the recommendations.

Analysis of information

Using the information collected, the status of implementation for each recommendation was coded into one of the following categories:

- Changes intended by the recommendation have been implemented.
- Work has been undertaken; barriers exist; moderate risk of not reaching full implementation.
- Work has been undertaken; major barriers exist; high risk of not reaching full implementation.
- No work done; no path identified for completion.

This analysis, as well as information and perspectives provided by key stakeholders, was reviewed to identify specific barriers and challenges to implementation.

Development of advice

From the analysis, key areas were identified that offer the greatest opportunity to accelerate progress on recommendations from the 2013 study and to improve continuity of care on a wide scale. Thus, this report focuses on strategic, priority opportunities for which advice is provided to the Deputy Minister. A detailed update on the status of all of the recommendations from the *Continuity of Patient Care Study* is provided in Appendix I.

Project governance

This review was conducted by the HQCA's Quality Assurance Committee (QAC) in accordance with Section 9 of the *Alberta Evidence Act.*[11] The review team included representatives from the HQCA, as well as two advisors with extensive experience in healthcare leadership outside of Alberta:

- Maura Davies BSc BEd MHSA FCCHL, Healthcare Consultant[i]
- Ward Flemons MD FRCPC, Medical Director, Health System Improvement, HQCA
- Dennis Kendel MD FRCPC, Medical Quality Improvement Consultant[ii]
- Donna MacFarlane RN, Lead, Health Systems Improvement, HQCA
- Carmella Steinke RRT BHS(RT) MPA, Director, Health System Improvement and Citizen Engagement, HQCA
- Lisa Strosher MSc, Lead, Health System Improvement, HQCA
- Jamie Stroud RN MHS, Lead, Health Systems Improvement, HQCA
- Eric Wasylenko MD BSc MHSc, Medical Director, Health System Ethics and Policy, HQCA

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[i] Ms. Davies is the former President and CEO of the Saskatoon Health Region, a surveyor and expert advisor for Accreditation Canada, former board member and Chair of the Canadian Patient Safety Institute and former board member of the Health Quality Council of Saskatchewan. She has a deep understanding of Canadian healthcare systems, executive leadership, and governance.

[ii] Dr. Kendel is the former Registrar of the Saskatchewan College of Physicians and Surgeons, a former board member of the Health Council of Canada and a current board member of the Health Quality Council of Saskatchewan. He brings extensive experience and knowledge about physician standards and Canadian healthcare systems.

FINDINGS

Extensive information concerning the progress made toward implementation of the recommendations from the 2013 study was gathered throughout this review. A detailed status report is provided in Appendix I, which includes analysis of the likelihood of implementation and any barriers that remain for each of the 13 recommendations.

However, in the interest of focusing discussion on progress and opportunities in those areas thought to have the greatest potential to improve continuity of care system-wide, this report concentrates on recommendations 1, 2, 3, and 5, which concerned:

- A provincial clinical information system (CIS)
- Electronic referral
- Personal health portal
- Critical test results management
- Provider registry
- Practice standards

The findings presented below were used to develop advice for the Deputy Minister, as outlined in the next section, Moving Ahead.

Clinical information systems

Planning, consultation, development, and implementation of electronic health records (EHR) has been underway in Alberta for more than 15 years.

In 2006, the Alberta Netcare portal was deployed, starting in the Edmonton zone. Netcare was the first truly provincial EHR in Canada, providing access to an ever-expanding number of health service providers throughout the province and supplying reliable and trusted health information.[iii] While Netcare is a valuable authoritative repository of clinical information, it has limitations. For example, it offers minimal clinical management functions and its use by providers is optional. Therefore, while Alberta is still considered a Canadian EHR leader, it lags far behind leading organizations in the United States[iv] that have a single electronic medical record (EMR) spanning acute and community-based care provided by their organization.[8]

Currently, more than 1,300 stand-alone clinical information systems exist within Alberta Health Services (AHS); few are interconnected and many are outdated and thus difficult and costly to support. In addition, there are at least 16 different electronic medical record systems in community settings (i.e., primary care clinics). Large parts of the healthcare system still rely on paper for managing interactions

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[iii] For example, medication profiles based on dispensing information from pharmacies, laboratory test results, pathology results, diagnostic imaging results, and some cardiac testing, pulmonary function tests, hospital discharge summaries, and specialist consult notes.

[iv] Such as Kaiser Permanente, the Mayo Clinic, and Geisinger Health System.

with patients. These multiple systems, both electronic and paper platforms, prevent healthcare providers from easily accessing healthcare information, and contribute to breaks in a patient's continuity of care. Numerous legacy strategic documents developed by Alberta Health (the Ministry) and AHS outline the case for creating a province-wide clinical information system (CIS), and the current Information Management Information Technology (IMIT) strategy for AHS centres on such a system.

In April 2015, a provincial CIS Taskforce, appointed by a former Minister of Health and led by a former AHS Official Administrator, recommended a single provincial CIS,[v] beginning with implementation in the AHS Edmonton zone. The Taskforce further recommended that community EMRs ultimately converge into the provincial CIS. A staged implementation spanning 10 years was anticipated for a single provincial CIS to become fully operational. It was felt that a provincial CIS, when completed, would greatly enhance information continuity of care for Albertans because health records would follow patients across the entire healthcare system, and a shared record of the plan of care could be managed by a spectrum of providers.

The recommendation of the Taskforce was accepted by the former Minister of Health, and a request for proposal (RFP) for the AHS portion of a provincial CIS was created. The RFP document is still under consideration by the Government of Alberta; however, in the April 2016 budget, the Government of Alberta committed $400 million for a new CIS. Delays in the RFP process and decisions related to critical IMIT infrastructure will prolong implementation of a single provincial CIS beyond 10 years. This will lead to increased costs required for continued support and maintenance of the many disparate IT systems currently in place, as well as potentially increasing costs for establishing the provincial CIS itself. Delays in implementation create more than financial concerns, however, as patient-safety issues arising from a lack of continuity of care remain.

Beyond funding, successful implementation of a project as large and complex as a provincial CIS will require extensive planning, robust project and change management, and skilled people. To date, considerable preparatory work has been accomplished:

- Roadmaps detailing the different IMIT initiatives and how they fit together have been developed.

- AHS has identified the need for care pathways, which will leverage work already done across AHS and be built directly into the CIS or supported by the CIS.

- AHS has implemented project management business processes related to the CIS to address concerns raised in the Auditor General of Alberta's 2009 report.[12]

The Ministry and AHS share responsibility for many of the electronic health systems that make up the provincial EHR.[13] A Provincial Health System IMIT Governance Structure is under development, intended to link the large number of committees spanning the Ministry of Health, AHS, and other key

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[v] A CIS is the computer-based hardware and software that supports many of the core activities enabling the transition from paper to electronic processes in primary care centres, hospitals, ambulatory clinics, and community care settings. A CIS would replace and consolidate major information technology systems, integrating the healthcare system in Alberta around a single health record and integrated care plan for each patient. It would also give all members of the healthcare team access to best practices, health information, and common tools to support consistency and standardized practices across the province.

stakeholders. In the 2009 Auditor General of Alberta's report it was identified that successful implementation of a provincial CIS will require leadership with clear accountability and responsibility.

Notwithstanding the significant amount of planning and work that has been completed to date, many key stakeholders involved were unaware of the vision, plan, scope, or timelines concerning the provincial CIS. Many of those not directly involved did not know of the achievements made to date.

Personal health portal

The CIS Taskforce recommended the provincial CIS should allow Albertans to obtain access and contribute information to their personal health record. The concept of patient access to their health information was affirmed nationally in the final report of the Advisory Panel on Healthcare Innovation released in 2015.[7] Many provinces have developed, or are developing, patient portals aimed at providing patients with easy access to their health information. In Alberta, the Ministry of Health initiated pilot projects in 2011 for developing a personal health portal (PHP); the vision was for all Albertans to have access to their health information in Netcare, including a medication profile, laboratory results, and diagnostic imaging reports. As envisioned, this would enable patients to be more active partners in their own care instead of being passive recipients of information when and if healthcare providers chose to release it.

Progress on the PHP has been slower than anticipated. Currently, patients in a small sample group (i.e., staff within the Government of Alberta) have been provided limited access to their health information – their medication profile only – via the PHP. The HQCA learned the next phase will allow patients to enter their own health information, such as data from their personal fitness tracking device, into their personal health record in Netcare. While this is important, greater focus needs to be placed on providing Albertans with easy access to their personal health information they currently do not have the ability to retrieve. Concurrently in a separate initiative, AHS has activated a patient portal on a trial basis within one of its EMR systems to understand operational implications and issues with patients' experiences.

Although the PHP, which is in development, will ultimately allow Albertans access to some of their own personal health information on Netcare, no plan has been announced for when full implementation will occur. One of the barriers identified is the absence of standardized terminology for laboratory test panels, orders, and results. The need to safeguard health information, uncertainty about the types of information patients should be able to see, and the technical aspects of delivering this access in the current CIS environment have hindered progress, despite the expectations of patients for access to their own health information. Similar systems in the United States have resolved these concerns and are able to provide patients with confidential access to a wide range of personal health information.

Electronic referral

Breakdowns in management continuity are more likely to occur with referrals to specialized healthcare services.[2] Reliable referral processes are difficult to accomplish and require standardization (see Figure 1).

Figure 1: Referral process
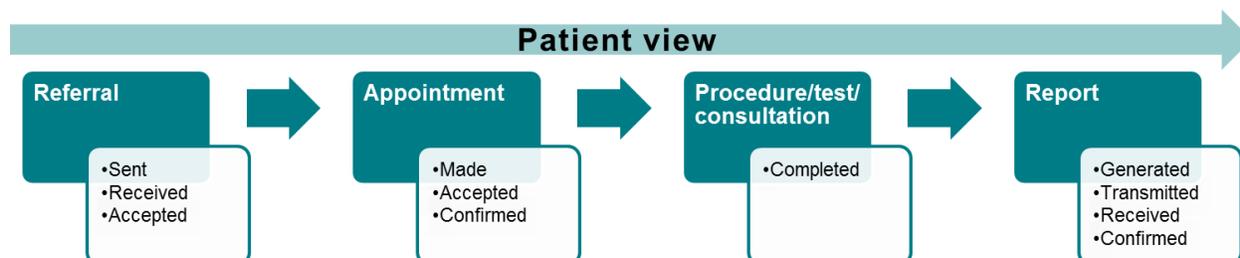
This process is variable across individual providers, spans multiple organizations, and uses different systems, thus increasing the difficulty of enabling the information to follow the patient throughout the process. Delays in patient care and redundant tests can result. With the vast number of patients requiring specialized healthcare services, it becomes extremely challenging to get to the right provider at the right time. An electronic referral (e-referral) system addresses most of the requirements for reliably obtaining specialized healthcare services for Albertans. It ensures that both the referring and receiving healthcare providers are aware of the status of the referral through all stages of completing the specialized healthcare service (i.e., closed-loop referral). The ability of patients to also have access to their referral status is important and this was highlighted in the HQCA's report, *Patient Perspectives on an Electronic Referral System for Alberta*. An e-referral system would allow them to track and intervene if they believe the referral process, and consequently their continuity of care, is at risk of breaking.[10]

In July 2014, AHS launched a limited rollout of its 'eReferral' system in three specialty areas,[vi] using Netcare as the platform. Referrals could still be made to these three specialty areas using existing mechanisms (e.g., fax). No provisions were made for patients to access the system for tracking the progress of their referral. The anticipated rollout beyond these three specialty areas has not occurred. In December 2015, AHS completed a robust evaluation that identified key elements required to fully realize the benefits of eReferral. These elements include leadership, secured funding, and alignment with the broader provincial IMIT strategy.

The HQCA has learned of other electronic referral systems, separate from the AHS eReferral system, being developed, tested, and used in the province. One of these, 'ezReferral', supports patient access to referral information. As well, there are multiple secure messaging[vii] systems being tested in the province

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[vi] Hip and knee joint replacement, medical and radiation oncology for lung cancer, and breast cancer.

[vii] Secure messaging is a server-based mechanism to facilitate communication of sensitive information in a protected (secure) manner; for example, provider-to-provider communication.

(e.g., by the Alberta Medical Association (AMA)). These systems confidentially transmit information between providers and can be used to support the referral process.

Having more than one electronic referral system, along with paper-based processes (mail or fax), is problematic and ultimately does not support or protect Albertans' continuity of care. It is undoubtedly more burdensome to physicians and physician office staff when more than one e-referral system exists in the province.

Critical test results management

An estimated six-million diagnostic imaging (DI) studies are conducted per year in Alberta, approximately half in AHS facilities and half in community clinics. About 10 per cent of all DI studies detect critical abnormalities that require urgent attention.[viii] In a review of cases over a 10-year period, the Canadian Medical Protective Association found that when a communication problem arose in radiology that resulted in inadequate reporting or follow-up of imaging results, more than half the time faulty systems had contributed to images or imaging reports being misplaced or to referring physicians not receiving reports.[14]

Successful approaches for improving the communication of critical DI test results have been reported.[15] These divide the criticality of test results into several levels and mandate the type of communication required for each level. Effective approaches also define an escalation process if the ordering provider cannot be contacted.

AHS conducted a comprehensive, proactive safety analysis (Failure Mode and Effects Analysis – (FMEA)) on getting the right diagnostic imaging and laboratory test result to the right provider quickly and efficiently. The analysis found more than 180 possible failure points with the current structures and processes; specific technological and policy/standard/practice initiatives were recommended to address them. An overarching project charter with sub-project charters has been developed by AHS to outline the work to be done. AHS is to be commended for undertaking this extensive analysis and planning.

Mechanisms to ensure test results – particularly critical results – are reviewed and acted upon are paramount to continuity of patient care. A critical test results management (CTRM) system would ensure the closed-loop communication of test results back to the ordering healthcare provider. It would flag critical results and track when they were reviewed. These systems can include mechanisms to generate an alert when critical test results have not been reviewed by the ordering provider. The results could then be escalated to an appropriate alternate clinician (e.g., an on-call physician) so that a patient's care needs are met. Such a system would also make it possible for regulatory colleges (e.g., the College of Physicians and Surgeons of Alberta (CPSA)) to be made aware of situations in which a physician is frequently failing to meet a standard for availability to receive critical test results (or not making appropriate alternative arrangements). The HQCA learned that two major barriers to successfully implementing a CTRM system in Alberta are the lack of an authoritative healthcare provider registry,

[viii] According to stakeholders consulted during this review.

and privacy concerns that have prevented electronic messaging from becoming an accepted method for communicating results.

Provider registry

A CTRM system cannot function without an authoritative provincial healthcare provider registry that is comprehensive, accurate, and continuously updated.

There have been two separate provider registries in the province; one managed by AHS and the other managed by the Ministry. Recently the technical consolidation of these two registries has occurred, creating a single provincial provider registry. A second phase of sharing and connecting provider contact information across the multiple DI and laboratory IT systems is underway.

Although physicians order the majority of healthcare tests, the provincial provider registry comprises all healthcare providers who can order tests. Each associated healthcare professional college collects contact information from its members as part of an annual registration process. Physicians and other healthcare providers are encouraged by their respective colleges to update their contact information regularly, not just at the next cycle of renewal.

Alberta is lacking a critical component to fully implement a CTRM system: the contact information currently available in the provincial provider registry is static (i.e., only updated annually). For a CTRM system to function effectively providers must update their contact information so a critical test result can be managed.

Practice standards

When patients are referred for specialized healthcare services, key steps must be completed to ensure they receive the required care with no unnecessary delays. Procedures and standards to mitigate the risk of breaks in continuity of care between a referring physician and services provided by specialists are insufficient in Alberta.

In June 2015, the CPSA adopted a new, detailed Continuity of Care practice standard, which defines expectations of all physicians, including arranging for continuous after-hours care provided by an appropriate healthcare provider. In February 2016 the AMA, working collaboratively with the CPSA, developed and disseminated pragmatic guidance to physicians intended to help them meet the Continuity of Care standard. Through monitoring, the CPSA has found compliance with the new standard is low. The Registrar of the CPSA has communicated to physicians that this level of compliance is unacceptable and committed that the College will follow up with those physicians who do not comply with the standard.[16]

Similar standards of other physician colleges were also examined as part of this review. In 2014, the Canadian Medical Association (CMA) conducted a comprehensive pan-Canadian review of medical referral and consultation policies and procedures. The CMA noted that the CPSA and the College of Physicians and Surgeons of Nova Scotia (CPSNS) have the most comprehensive standards and policies

governing medical referral and consultation.[ix] Both organizations' standards and guidelines support direct physician-to-physician communication for urgent referrals. According to the CPSA Referral Consultation Process standards, a consultant must respond (verbally or in writing) to the referring physician within 30 days of receiving a non-urgent referral (Section 13). In contrast, CPSNS guidelines require a written response to the referring physician within 14 days to acknowledge the referral and provide an estimated appointment date or anticipated wait time (Section C.1). Both the CPSA and CPSNS standards/guidelines obligate the consultant to contact the patient to schedule an appointment and inform the referring physician of those arrangements. After a patient has been seen, the CPSA standard recommends a written report be sent to the referring physician within 30 days (Section 19), while the CPSNS guidelines recommend this follow-up occur within 14 days (Section D). CPSA outlines the requirement for a physician to document his or her contribution to a patient's care and explain his or her responsibilities to a patient according to a separate standard (Collaboration in Patient Care). The CPSNS provides further recommendations related to 'co-management' of patients, and provides guidance that roles and responsibilities (for both referring and consulting physicians) should be clarified and communicated with all members of the care team and the patient (Section 12).

The CPSA has committed to review or revise its practice standard concerning the referral consultation process. Recommendations for revision of this standard were considered by the Council of the CPSA at its March 2016 meeting, and a member and stakeholder consultation process has since been initiated.

[ix] The CPSA document referenced by the CMA is a practice standard while the CPSNS document is a practice guideline.

MOVING AHEAD – OPPORTUNITIES TO IMPROVE CONTINUITY OF CARE

The following key opportunities and related advice are intended to advance the recommendations from the 2013 *Continuity of Patient Care Study* and will contribute overall to improving the continuity of Albertans' healthcare.

Provincial clinical information system

Opportunity

Many patients require more than a single healthcare provider to achieve and maintain optimal health and thus, continuity of healthcare information is essential. Albertans' continuity of care will be effectively supported when an integrated provincial clinical information system (CIS) is in place.

In order to deliver on the vision of a provincial CIS, responsibility and accountability for managing and coordinating the many facets of implementation must be clearly delineated to all stakeholders. Timely and relevant communication to stakeholders, about all aspects of the provincial CIS and its implementation, is integral to maintaining momentum and focus.

Advice for moving ahead

- Identify a single accountable leader, with the requisite decision-making authority, who can consolidate the vision, maintain focus, and align the multiple strategies required for successful implementation of the provincial CIS.

- The Government of Alberta approve that Alberta Health Services (AHS) proceed with the request for proposal for the AHS CIS as soon as possible.

- Develop and implement a multi-faceted communication strategy for the provincial CIS so all stakeholders – including patients – understand the vision, project scope, timelines, and progress on implementation.

Electronic referral system

Opportunity

Standardized, closed-loop referral processes enabled electronically (i.e., electronic referral) could greatly reduce the risk of breaks in continuity of care.

Advice for moving ahead

- Implement a single province-wide electronic referral system that is integrated with the provincial CIS.

- Regulatory colleges ensure practice standards require members to generate and track patient referrals for specialized healthcare through this electronic referral system once it is functional.

Personal health portal

Opportunity

With access to their comprehensive health information, patients become true partners in their healthcare, able to advocate for care important for maintaining or restoring health. In addition, when patients are able to monitor the referral process for their specialized healthcare services they can see and intervene when their care continuity may be at risk of breaking.

Advice for moving ahead

- Through the personal health portal, provide Albertans with full access to all of their health information as soon as possible.

- Resolve patient privacy and confidentiality issues that are currently blocking Albertans' access to their own health information.

- Design the patient portal so that patients can track the status of any referrals that have been made on their behalf for specialized healthcare services.

Critical test results management system

Opportunity

When diagnostic testing produces a result that requires urgent or time-sensitive care for the patient, timely closed-loop communication of critical test results is essential and possibly life-saving.

Advice for moving ahead

- Implement a provincial critical test results management system and ensure it integrates with the provincial CIS.

Provider registry

Opportunity

Current, reliable contact information within a single provincial provider registry is required to assure that the right provider can be contacted to initiate the next steps of a patient's care.

Advice for moving ahead

- Regulatory college practice standards must require all healthcare providers who order diagnostic tests and/or co-manage patient care to maintain current contact information, as well as availability/designate information, in the provincial provider registry.

Practice standards

Opportunity

Roles and responsibilities for a patient's care should be clear among healthcare providers and between a provider and the patient. This is especially important when multiple care providers are 'co-managing' or sharing responsibility, authority, and accountability for a patient's care. For example, the CPSA's new Continuity of Care practice standard defines expectations of physicians to be available to patients after

hours. In addition, the Referral Consultation Process practice standard lays out many expectations for physicians when patients are referred to a specialist. These can be further improved by addressing how patients can be informed as to which physician is responsible for managing the patient's care.

Advice for moving ahead

- The CPSA evaluate the guidelines of the College of Physicians and Surgeons of Nova Scotia to determine if further improvements could be made to existing standards in Alberta regarding management continuity of patient care.

Leadership and commitment

Some stakeholders viewed the 2013 *Continuity of Patient Care Study* as effective in shining a light on the issue of continuity of care, stimulating important conversations, and leading to improvements in the healthcare system. Considerable effort has been directed by many stakeholders towards implementing the recommendations from the 2013 study. Others stated that the work was challenging, taking time away from other priorities; some expressed a desire 'to be done' with implementing the recommendations.

Leadership and commitment are instrumental to the successful implementation of the recommendations from the study. Historically, changes in political and administrative leadership, and the subsequent changes in priorities and focus, have slowed progress on important projects that support care continuity. For example, the province's ability to implement critical steps towards realization of an integrated clinical information system (CIS) has been greatly impeded as various AHS RFP processes were initiated and then halted in a repeating cycle. Many stakeholders identified that this inconstancy has challenged the system's capacity to maintain positive momentum and focus on implementing a provincial CIS. Despite these inherent challenges, progress can be made if all parties commit to a strategy that is independent of changes in leadership.

Advice for ongoing monitoring of progress

The effort required to deliver on the advice offered in this report to advance continuity of care for all Albertans will be ongoing, in some cases over several years. Albertans need to be assured that this work is on track and achieving the established goals. As previously acknowledged, not all of the recommendations from the original *Continuity of Patient Care Study* are addressed individually in the body of this report. Thus, we recommend the Health Quality Network (HQN)[x] be given responsibility to:

- monitor progress on the implementation of advice in this report and outstanding recommendations from the original report.
- report to the public and the Deputy Minister.

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[x] The Health Quality Network was formed in 2004 to ensure knowledge sharing and capability transfer related to leading or best practices throughout the province. It is chaired by the HQCA and its current member organizations include: Alberta College of Pharmacists, Alberta Health, Alberta Health Services, Alberta Medical Association, College and Association of Registered Nurses of Alberta, College of Physicians and Surgeons of Alberta, Covenant Health, Office of the Alberta Health Advocates, Patient/Family Safety Advisory Panel - HQCA, University of Alberta Faculty of Medicine and Dentistry, University of Calgary Faculty of Medicine.

Promoting and improving patient safety and health service quality across Alberta

APPENDIX I: STATUS UPDATE ON THE 2013 *CONTINUITY OF PATIENT CARE STUDY* RECOMMENDATIONS

In response to the Deputy Minister's request, a status update on each of the recommendations from the HQCA's *Continuity of Patient Care Study* released in December 2013 is provided below. A preliminary update was prepared for the Deputy Minister in January 2016 with the status of implementation for each recommendation coded into categories:

- Changes intended by the recommendation have been implemented.

- Work has been undertaken; barriers exist; moderate risk of not reaching full implementation.

- Work has been undertaken; major barriers exist; high risk of not reaching full implementation.

- No work done; no path identified for completion.

The information shared below reflects additional work completed since then.

The 13 recommendations (in abbreviated format) from the 2013 report are broken down into 17 discrete actions in cases where more than one step or participant is involved. Of the 17 actions, the HQCA has concluded:

- Three have been implemented as intended in the recommendations.

- Six are in progress with some barriers identified with a moderate risk of not being implemented.

- Five face major barriers with a high risk of not reaching full implementation.

- Three have seen no work completed, and with no path identified for implementation.

Recommendation 1

Recommendation	Current status
Alberta Health (AH) and Alberta Health Services (AHS) should strongly consider making additional investments in the provincial electronic health record and e-referral system.	Work has been undertaken; major barriers exist; high risk of not reaching full implementation[xi]

[xi] See the **Findings** section for more detail.

Recommendation 2

Recommendation	Current status
The College of Physicians and Surgeons of Alberta (CPSA) amend its Standards of Practice related to co-ordination and provision of services.	Work has been undertaken; barriers exist; moderate risk of not reaching full implementation
AHS amend its policies and procedures related to co-ordination and provision of services.	No work done; no path identified for completion
A complete provider registry that is continuously maintained and updated.	Work has been undertaken; barriers exist; moderate risk of not reaching full implementation

Recommendations for revision of the Referral Consultation Process standard were considered by the Council of the CPSA at its March 2016 meeting, and a member and stakeholder consultation process has been initiated.

Overlap exists between the CPSA and AHS in their public accountability mandates for physician performance and conduct. AHS uses medical staff bylaws and rules, and the CPSA uses physician practice standards as a means to meet those accountabilities. Each organization is empowered to establish the bylaws, rules, or standards regarding physicians' duties and actions, and to monitor compliance as a condition of sustaining a medical staff appointment or medical licensure.

There are situations in which physicians and teams work in clinics owned and resourced by AHS. This can increase the complexity of ensuring best practices for referral consultation. It would be beneficial if AHS and physicians continue to work together to align policies and procedures related to co-ordination and provision of services.

A single provincial provider registry has been established (see the Findings section for more detail).

Recommendation 3

Recommendation	Current status
The Alberta Society of Radiologists (ASR) in collaboration with AHS and the CPSA develop policy and procedures that would support radiologists to: 1. Directly order the next logical DI test if one is required.	Work has been undertaken; barriers exist; moderate risk of not reaching full implementation
2. Directly refer a patient who has a time-sensitive health condition to a clinical service when it is obvious the patient requires that expertise to move to the next level of care.	Work has been undertaken; major barriers exist; high risk of not reaching full implementation

A key stakeholder meeting was facilitated by the HQCA in January 2016 that included the Alberta Society of Radiologists (ASR), AHS, the Alberta Medical Association (AMA), and the CPSA, in which support was expressed for radiologists' directly ordering the next logical DI test if one is required' for patients with time-sensitive conditions. Decisions were made and next steps were identified in moving toward creating a culture and practice that commends and expects radiologists to consistently do what is right for the patient in ensuring expedited care. The next steps included:

- The ASR will develop a draft standard, consistent with the CPSA standards, that specifically addresses referrals by radiologists to the next diagnostic test or service. The CPSA will review the draft and provide feedback to the ASR.

- The CPSA will provide a statement to members regarding its position about radiology referrals to the next diagnostic test or service, using examples where appropriate of what would be considered appropriate practice in the best interest of the patient when the referring physician cannot be reached (Note: This step was completed by the CPSA in April 2016).[17]

- The CPSA will initiate a process to monitor observable practices that indicate adherence to the standards on referrals and continuity of care, and will develop further communication and education, as needed, based on the results of monitoring.

- A need to ensure adequate documentation of radiologist-to-radiologist referrals was also recognized.

Consensus at the key stakeholder meeting was not reached regarding next steps for implementing the second part of the HQCA's recommendation, specific to expediting a referral to specialized healthcare services. This is understood to be more complicated than referring to the next logical diagnostic test due to concerns about continuity of care and information sharing with the most responsible provider. Agreement was reached that once critical infrastructure (i.e., the provincial provider registry and a critical test results management system (CTRM)) was in place, further discussion regarding this recommendation and next steps could occur.

Recommendation 4

Recommendation	Current status
AHS revise the current criteria for prioritizing outpatient CT scans to take into account patients who do not yet have a confirmed diagnosis of malignancy.	Changes intended by the recommendation have been implemented

The AHS Provincial CT Prioritization Guidelines were revised and implemented in January 2015. The criteria for 'outpatient priority 1' now include broader and more inclusive language to accommodate patients with a known or highly suspected malignancy. Once these criteria were revised, the revision was approved by the DI Provincial Executive Team and communicated widely in AHS.

Recommendation 5

Recommendation	Current status
The CPSA amend its Standards of Practice related to after-hours and follow-up care.	Changes intended by the recommendation have been implemented
AHS revise its Medical Staff Rules and Bylaws related to after-hours and follow-up care.	Work has been undertaken; major barriers exist; high risk of not reaching full implementation

The CPSA has amended its Standards of Practice related to after-hours and follow-up care, and a new Continuity of Care standard was developed in June 2015.

AHS has identified that the Medical Staff Bylaws as currently worded are adequate and that changes to the AHS Medical Staff Rules are being contemplated.

Recommendation 6

Recommendation	Current status
The Alberta Medical Association (AMA) in collaboration with AHS and the CPSA, and with public consultation, develop a document that outlines specific physician commitments to patients.	No work done; no path identified for completion

The Alberta Health Charter, which was published in March 2014, does not include information about physician commitments to patients. Public consultation to inform revisions to the Alberta Health Charter is not expected to start until 2017-18. A separate document addressing the issues identified in the *Continuity of Patient Care Study* has not been created.

Philosophical differences among current stakeholders exist in terms of the value of an additional document in improving continuity of care; however, there is agreement that the concept of physician commitments to patients should be revisited. Adding to the strength of this continued dialogue would be including the patient and family perspective as well as the participation of the Office of the Alberta Health Advocates (OAHA), which opened on April 1, 2014.

Recommendation 7

Recommendation	Current status
The AMA and AHS investigate how to partner with Health Link so that patients who believe they need to contact a specialist (or designate) responsible for their care after hours have a mechanism to do this.	Work has been undertaken; barriers exist; moderate risk of not reaching full implementation

Successful partnerships have been developed between specific physician groups and Health Link. Several primary care networks (PCNs) in the Calgary area, for example, have worked with Health Link to develop business processes to direct patients to after-hours care. Based on the description of symptoms, and guidance from the clinical decision support tool, Health Link staff determine the most appropriate option for the patient.[xii]

Partnerships between physician groups and Health Link are known to enhance after-hours care, but they require a commitment by the specific physician/specialty group to develop standardized, province-wide business processes and clinical decision support protocols for Health Link staff to follow. An opportunity to leverage the clinical pathway work currently being undertaken by AHS is possible. Health Link has put together information for physicians describing how physicians may be able to partner with Health Link to provide after-hours care to their patients;[18] physicians can easily access this information on the CPSA website, along with other helpful information related to continuity of care.

Currently Health Link is not sufficiently resourced to support all physician groups in the province, particularly as it already faces growing demand; additional resources may be required in the future.

Recommendation 8

Recommendation	Current status
The CPSA should develop a proactive process to monitor physicians' compliance with the 'After Hours Access to Care' standard.	Changes intended by the recommendation have been implemented

The CPSA conducted a compliance audit on its 'After Hours Access to Care' practice standard. The results of the audit, which were shared publicly, demonstrated low adherence to the standard; communication and direction from the CPSA has been provided to physicians. The AMA has also supported this work and provided additional information to physicians to assist in meeting the standard.

[xii] For example, an appointment at an after-hours clinic, a phone call from an on-call physician, advice to care for themselves at home, or a visit to the nearest emergency department.

The CPSA should be commended for its responsiveness in conducting compliance audits, publicly sharing the results, providing clear direction to physicians on standards and expectations, revising standards, and implementing a process for ongoing compliance audits.

Recommendation 9

Recommendation	Current status
All (adult-treating) private-practice urologists in Calgary, the Prostate Cancer Centre (PCC), and AHS enter into discussions to review the business and organizational model for the Southern Alberta Institute of Urology (SAIU).	Work has been undertaken; barriers exist; moderate risk of not reaching full implementation

Vesia and the Prostate Cancer Centre have centralized patient assessment and prioritization of new patient referrals. These appear to work as intended in prioritizing based on urgency of need. Similar processes have not been implemented in the general urology practices in the SAIU; however, best referral practices are being considered.

Changes have been made to improve after-hours care. Most out-of-office messages and voicemail message scripts have been standardized, instructing patients on how to access after-hours on-call paging of surgeons for urgent issues. It is not known to what degree these mechanisms have been implemented nor to what degree patients use them. Recent additions of administrative and organizational support for the Division of Urology are anticipated to help streamline clinical and business processes.

The HQCA acknowledges the changes the SAIU and the Division of Urology have made and encourages them to continue in their improvement efforts.

Recommendation 10

Recommendation	Current status
The SAIU and AHS review their websites and written communication.	Work has been undertaken; barriers exist; moderate risk of not reaching full implementation

AHS has removed the page on its website that made reference to the "Rockyview Urology Clinic". SAIU has updated its website to instruct patients to contact their specific urologist directly.

Additional changes could be made to the SAIU website to further reduce the potential for confusion and to provide helpful information for patients who are unfamiliar with how the Institute functions.

Recommendation 11

Recommendation	Current status
AH amend the definition of "health service" in the *Health Information Act* (HIA) so that medical examiners are able to become "authorized custodians" and obtain access to the provincial electronic health record, Netcare.	Work has been undertaken; major barriers exist; high risk of not reaching full implementation

Amendments to the HIA are on the legislative agenda; however, they were deferred from the spring to the fall of 2016, and there is potential for even further delay.

Recommendation 12

Recommendation	Current status
The Chief Medical Examiner arrange for a comprehensive process improvement review to find efficiencies in the Office of the Chief Medical Examiner (OCME).	No work done; no path identified for completion

Although the 'comprehensive process improvement review' was not initiated, related internal quality improvement efforts are reported to be underway. It was suggested that staffing levels and caseload volume impede acceptable turnaround times. The Chief Medical Examiner tracks individual caseloads, case completion times, and final report completion times. While quarterly reports are generated to outline how many cases are completed within 90 days, and how many cases extend beyond six months, these reports are for internal reference only and are not publicly available.

The *Fatality Inquiries Act* has been opened for review. The OCME has sought insight from outside stakeholders in regards to the workings of the Fatality Review Board and investigative elements of the medical examiner's legislation.

Recommendation 13

Recommendation	Current status
The OCME review the written information and its verbal communication provided to surviving family members.	Work has been undertaken; major barriers exist; high risk of not reaching full implementation

The OCME Office has made efforts to clarify written information packages and information on its website, and has created a policy manual for death investigators in order to standardize communication with next of kin.

The *Fatality Inquiries Act* contains phrases such as 'certifying the cause and manner of death', and 'conducting an investigation'. To maintain consistency with the Act, this language remains on the OCME's website and in written communication. As a result, the potential for confusion among bereaved family members still exists. The website content and revisability path is not under the direct control of the OCME, and any changes to content require collaboration with and approval of the Ministry of Justice.

The HQCA acknowledges the OCME for its efforts thus far; however, it encourages the use of plain language in written information packages and on the website to make the information clearer and easier to understand for families.[xiii][19]

[xiii] The Public Works and Government Services Canada website states: "The obligation to inform the public includes the obligation to communicate effectively. Information about government policies, programs and services should be clear, objective and simple, and presented in a manner that is readily understandable. Messages should convey information relevant to public needs, use plain language and be expressed in a clear and consistent style."

APPENDIX II: ACRONYMS

AH	Alberta Health
AHS	Alberta Health Services
AMA	Alberta Medical Association
ASR	Alberta Society of Radiologists
CEO	Chief Executive Officer
CIS	Clinical Information System
CMA	Canadian Medical Association
CPSA	College of Physicians and Surgeons of Alberta
CT	Computerized Tomography
CTRM	Critical Test Results Management
DI	Diagnostic Imaging
EHR	Electronic Health Record
EMR	Electronic Medical Record
FMEA	Failure Mode and Effects Analysis
HQCA	Health Quality Council of Alberta
HQN	Health Quality Network
IMIT	Information Management Information Technology
IT	Information Technology
OAHA	Office of the Alberta Health Advocates
OCME	Office of the Chief Medical Examiner
PCC	Prostate Cancer Centre
PCN	Primary Care Network
PHP	Personal Health Portal
RFP	Request for Proposal
QAC	Quality Assurance Committee
SAIU	Southern Alberta Institute of Urology
SSA:PSR	System Safety Analysis: A Practical Approach to Patient Safety Reviews

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