

Challenges and insights in implementing coordinated care between oncology and primary care providers: a Canadian perspective

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ABSTRACT

We report here on the current state of cancer care coordination in Canada and discuss challenges and insights with respect to the implementation of collaborative models of care. We also make recommendations for future research. This work is based on the findings of the Canadian Team to Improve Community-Based Cancer Care Along the Continuum (canIMPACT) casebook project. The casebook project identified models of collaborative cancer care by systematically documenting and analyzing Canadian initiatives that aim to improve or enhance care coordination between primary care providers and oncology specialists. The casebook profiles 24 initiatives, most of which focus on breast or colorectal cancer and target survivorship or follow-up care.

Current key challenges in cancer care coordination are associated with establishing program support, engaging primary care providers in the provision of care, clearly defining provider roles and responsibilities, and establishing effective project or program planning and evaluation. Researchers studying coordinated models of cancer care should focus on designing knowledge translation strategies with updated and refined governance and on establishing appropriate protocols for both implementation and evaluation.

Key Words Primary health care, cancer care delivery, coordination of patient care, continuity of patient care, knowledge translation, models of care

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BACKGROUND

The number of Canadians with cancer continues to grow¹. Innovations within the health system are required to address the resulting need for care and to ensure that high-quality care is available to patients. Enhancing the capacity of primary care providers to deliver cancer care and facilitating their collaboration with oncology teams are strategies that could address that need². However, research is required to better understand the influence of various models of coordinated care between primary care providers and oncology specialists and the various contexts in which those models can be optimized.

The Canadian Team to Improve Community-Based Cancer Care Along the Continuum Casebook

The ongoing interdisciplinary and multi-jurisdictional program of research being conducted by the Canadian

Team to Improve Community-Based Cancer Care Along the Continuum (canIMPACT, <http://canimpact.utoronto.ca>) is designed to improve communication and collaboration between primary care and oncology care providers. One completed project within the canIMPACT program of research is the canIMPACT casebook³. In the casebook project, we systematically analyzed Canadian initiatives (that is, programs and projects) designed to improve or support coordination and continuity of patient care between primary care providers and oncology specialists. A detailed methodology for the development of the casebook is reported in the canIMPACT casebook publication³.

Briefly, key stakeholders across Canada were invited to nominate initiatives that fit the inclusion criteria. Profile forms were completed for each of the included initiatives, either by a member of the research team during a telephone interview or by the initiative contacts themselves. Profile forms were then prepared as “profiles” and a thematic

analysis was conducted to identify similarities and differences in strategies applied, the barriers and facilitators encountered, the level of primary care provider engagement, areas of concern, and factors influencing success.

The goals of the casebook were to

- profile promising models of cancer care that could be scaled up and implemented in new jurisdictions;
- provide guidance on how scaling and new implementations could be achieved; and
- inform the subsequent phases of the CANIMPACT program of research.

A paper about the casebook methodology and primary care provider engagement has been published⁴. The purpose of the present work is to discuss the casebook findings about the current state of collaborative cancer care initiatives in Canada, the challenges and insights associated with implementation of the documented initiatives, and implications for future research and practice.

CURRENT STATE OF COLLABORATIVE CANCER CARE INITIATIVES

Of the 24 initiatives profiled in the casebook, most addressed the needs of patients being treated for breast or colorectal cancer ($n = 15$) and focused on survivorship or follow-up care ($n = 11$). All initiatives were designed to improve coordination and collaboration between primary care providers and oncology specialists. The primary strategies used were nurse or patient navigation, multidisciplinary care teams, electronic information systems, primary care provider education, and multi-component initiatives (that is, projects or programs whose model of care combines multiple approaches). Of the 24 initiative teams, 11 completed formal program evaluations. Additional details about the initiatives can be found in the casebook publication⁴.

Casebook Limitations

Although the CANIMPACT casebook provides a snapshot of the current state of collaborative cancer care initiatives in Canada, it is not without limitations. Few nominations were received from stakeholders in the Atlantic and Northern regions of Canada; as a result, the casebook is not representative of all Canadian provinces and territories. In addition, no profiled initiatives were related to personalized medicine, which is a component of the cancer care continuum that the casebook had intended to encompass. Further, the information received from initiative contacts was inconsistent in amount and quality, resulting in profiles of differing lengths and levels of detail. A more thorough discussion of the casebook's limitations can be accessed online³.

CHALLENGES AND INSIGHTS ASSOCIATED WITH IMPLEMENTATION OF CURRENT COLLABORATIVE MODELS OF CARE

Establishing Initiative Support

The engagement of stakeholders in the design and implementation of the collaborative initiatives was identified as a key element in a strong foundational base for the program;

that observation aligns with the hypotheses associated with an integrated knowledge translation (iKT) approach in which the inclusion of stakeholders throughout a project facilitates that project's feasibility and applicability⁵.

There were many benefits to involving stakeholders in program development. For example, they provided counsel and material support for implementation, as is seen in prior research examining the implementation and use of innovation in cancer care⁶. Another advantage was that some stakeholders served as initiative "champions"—individuals who openly supported and promoted the program. Those individuals highlighted the advantages of the program and relieved the concerns of other stakeholders.

Such tactics align both with theories underpinning the reasons that an iKT approach might be effective⁵ and with knowledge translation intervention strategies of proven effectiveness⁷. However, challenges can arise when attempting to engage stakeholders. One identified problem was the coordination of stakeholder schedules; the anticipated level of involvement by stakeholders and their availability have to be taken into account when seeking their participation. That finding also aligns with the iKT literature⁸. Lastly, feedback on development and implementation should continuously be sought from stakeholders, because such feedback enables program improvement.

Patients, together with their caregivers and family members, constitute a unique group of stakeholders. Those individuals are the ultimate recipients of care and services; their perspectives, thoughts and concerns are therefore particularly valuable to the development and implementation of patient-centred initiatives. Although the value of patient and public involvement is flagged in the literature⁹, only 5 of the 24 profiled initiatives discussed its importance. Overall, the inclusion of stakeholders at the outset reinforced program credibility, encouraged buy-in, and made new collaborative care initiatives sustainable.

Engaging Primary Care Providers

In the profiled initiatives, various methods were identified for engaging primary care providers in collaborative care with oncology specialists. Primary care providers were involved in developing program materials and clinical processes and pathways, in designing and testing referral pathways and mechanisms that embed evidence-based recommendations into medical records, in referring patients to specialty care, and in receiving patient records and care plans from oncologists.

Using criteria developed by our team⁴, we anticipated that primary care provider engagement for most initiatives would be high—that is, initiatives would be implemented in a primary care setting or provide shared care to patients, or both. That understanding followed from the fact that the profiled initiatives were specifically those that supported or enhanced collaboration between primary care providers and oncology specialists. However, we found that only 6 initiatives engaged primary care providers at a high level; 11 initiatives engaged primary care providers at a moderate level (there were multiple points of contact between oncologists and primary care providers), and 7 engaged them at a low level (there was only one point of contact between oncologists and primary care providers). The casebook

findings therefore suggest that the overall engagement of primary care providers in the provision of cancer care in Canada is suboptimal.

Establishing Provider Responsibilities

Enhancing the engagement of primary care providers in the cancer journeys of their patients has the potential to improve the effectiveness and efficiency of the cancer care system. What must be avoided, however, is any confusion that might arise when multiple providers are involved in patient care. To succeed, a program that promotes collaborative care must clearly define the roles and responsibilities of the providers involved. All program staff should have a clear understanding of their duties in the workplace. Furthermore, if a new person joins the program (a nurse navigator, for instance), that person's role should be clearly communicated to all staff. Such communication will ultimately reduce duplication of work and reinforce workplace accountability while ensuring that providers understand their own responsibilities and the responsibilities of their co-workers. It will also help to provide role clarity to patients, their caregivers, and their family members.

Effective Planning

Electronic Information or Communication Systems

Of the casebook initiatives, 6 implemented electronic information or communication systems for enhancing communication between primary care providers and oncology specialists, with the goal of reducing wait times for diagnostic testing and treatment. Jointly accessible electronic information systems have many advantages. They can facilitate transfer of patient information, track patients and record their progress, and provide a means for specialists to issue referrals, treatment plans, recall prompts, and evidence-based recommendations for care. The literature has identified these sorts of knowledge translation interventions as being effective at increasing knowledge exchange in health care¹⁰.

However, implementation of such systems, although promising, does come with a unique set of challenges. Those challenges include the technical complexities of developing and maintaining electronic information systems, particularly when multiple electronic interfaces must be aligned to optimize electronic processes. Fortunately, with thorough testing and development, many technical issues can be prevented before implementation. Post-implementation, the availability of advanced technical support helps in the mitigation and resolution of further complications that might develop. With adequate planning and support, electronic information systems can therefore facilitate communication—and thus collaboration—between primary care and oncology care.

Ultimately, health systems can be streamlined with electronic processes. Patient records, privacy protocols, and the online platforms themselves are components that should be standardized. A consistent and organized approach is not only important for streamlining (and therefore facilitating collaboration between primary care and specialty care), but also for establishing common indicators and sources of measurement.

Large-Scale Implementation

Most casebook initiatives were implemented on a large scale—that is, across a region or province ($n = 22$). The involvement of multiple sites encouraged consistency in care and improved overall program awareness. Teams that implemented initiatives on a large scale were often presented with a unique set of challenges. For example, a large-scale program can be difficult to maintain because of budgetary constraints and issues relating to governance, adherence to standardized protocols, and site-specific factors influencing effectiveness. Centralized advisory committees can help to mitigate such problems, because committee members can be tasked with establishing timelines, enforcing standardized practices, and evaluating implementation at the various sites. A common issue with large-scale implementation is variation in medical or clinical practices; efforts at standardizing practices must therefore be flexible to accommodate such variation.

Importance of Evaluation

The project teams of 13 profiled initiatives were in the process of developing an evaluation framework or collecting evaluative data, and 11 initiatives had been formally evaluated. Outcomes that were measured included patient and provider satisfaction, improvements in clinical efficiency, and resource utilization savings. Limited evaluative data made it difficult to gauge the effectiveness, sustainability, and short- and long-term effects of the various interventions. We were therefore unable to recommend a specific model of collaborative care derived from our review. However, the casebook findings highlighted the value of incorporating evaluation into program design. For example, favourable evaluation results encouraged buy-in from stakeholders and were used to secure funding or to expand programs to other sites. Furthermore, initiatives that documented “success” were being used as models for other programs.

LOOKING FORWARD

Based on the casebook findings, we identified priorities for research into coordinated models of cancer care and their evaluation.

iKT and Governance

Among the cases reviewed, barriers that limited program success included a lack of appropriate leadership, engagement of stakeholders, and governance. To address those problems, we recommend that an iKT strategy with updated and refined governance be used when designing and implementing coordinated models of care. Specifically:

- Designate individuals within the organization to be responsible for program implementation.
 - Is there clear governance so that the appropriate skill mix is present? Recruitment of new members to the project team might be required.
- Identify community partners and bring them to the table early; however, it will be important to go beyond this strategy.
 - Be deliberate in choosing among candidate contexts for additional research inquiry (for example,

academic vs. non-academic; urban vs. rural; one region vs. another). Some contexts might be feasible, but consider where the most significant problems actually exist and where the research and practice could have the most impact in advancing knowledge, patient experience, or system outcomes.

- Be deliberate in making the choice of lead or leads in the chosen context. How does the team define its local champion or champions? What are their roles? How are they chosen? Terms of reference should be prepared before context is confirmed.
- Establish a patient and family advisory committee to provide patient perspectives.
 - Be clear on the role of the patient and family advisors.
- Establish a methodology framework.
 - Does the project or initiative team collectively, or through partnership, have the appropriate suite of methodologic and content skills to implement and evaluate the model of care?
- Build sustainability into the design of the program.
 - How can key elements that will affect sustainability be built into the study design?

Protocol and Evaluation

The most striking limitations in the initiatives were the lack of a comprehensive evaluation protocol and, in some cases, of the means to collect data to assess effectiveness. Without such data, it is not possible to identify the components of an effective model. To overcome those limitations, program planners should weigh these considerations when outlining priorities for evaluations:

- Clearly define project objectives.
 - How can evaluation strategies be mapped to the identified objectives?
- Consider feasibility, given available time and resources.
 - What are the implications for choice of program goals?
 - What are the implications for choice of program design, and how will the program be evaluated?
- Establish an evaluation plan.
 - Which designs and outcomes are convincing for the purposes of pilot work for subsequent funding requests?
 - Which designs and outcomes are convincing for the purposes of a definitive study to subsequently implement in other jurisdictions?

CONCLUSIONS

The CANIMPACT casebook project was conducted to profile Canadian initiatives designed to improve or support coordination of cancer care between primary care providers and oncology specialists. The casebook profiled 24 initiatives that helped to identify areas of concern associated with the design and implementation of collaborative cancer care projects and programs in Canada. Key concerns were associated with encouragement of stakeholder support, engagement of primary care providers in the delivery of care, definition of provider roles and responsibilities, and effective program planning and evaluation. Based on the

casebook findings, we recommend that those who design and test models of coordinated cancer care develop key strategies that include strong leadership, an appropriate governance structure, and an established protocol for implementation and evaluation.

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CONFLICT OF INTEREST DISCLOSURES

We have read and understood *Current Oncology's* policy on disclosing conflicts of interest, and we declare that we have none.

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REFERENCES

1. Canadian Cancer Society. *Canadian Cancer Statistics 2015*. Toronto, ON: Canadian Cancer Society; 2015.
2. Rubin G, Berendsen A, Crawford MS, *et al.* The expanding role of primary care in cancer control. *Lancet Oncol* 2015;16:1231–72.
3. Canadian Team to Improve Community-Based Cancer Care Along the Continuum, Knowledge Translation Team. *Improving Coordination Between Primary Care Providers and Oncology Specialists: Cases from Canada*. Toronto, ON: University of Toronto; 2015. [Available online at: <http://canimpact.utoronto.ca/wp-content/uploads/2014/08/CanIMPACT-Casebook.pdf>; cited 30 June 2016]
4. Brouwers MC, Vukmirovic M, Tomasone JR, *et al.* Documenting coordination of cancer care between primary care providers and oncology specialists in Canada. *Can Fam Physician* 2016;62:e616–25.
5. Bowen S, Graham ID. Integrated knowledge translation. In: Straus E, Tetroe J, Graham ID, eds. *Knowledge Translation in Health Care: Moving from Evidence to Practice*. 2nd ed. Hoboken, NJ: Wiley Blackwell/BMJ Books; 2013:12–23.
6. Urquhart R, Porter GA, Sargeant J, Jackson L, Grunfeld E. Multi-level factors influence the implementation and use of complex innovations in cancer care: a multiple case study of synoptic reporting. *Implement Sci* 2014;9:121.
7. Wensing M, Bosch M, Grol R. Developing and selecting interventions for translating knowledge to action. *CMAJ* 2010;182:E85–8.
8. Grimshaw J, Eccles M, Tetroe J. Implementing clinical guidelines: current evidence and future implications. *J Contin Educ Health Prof* 2004;24(suppl 1):S31–7.
9. Epstein RM, Street RL Jr. The values and value of patient-centered care. *Ann Fam Med* 2011;9:100–3.
10. Gupta S, McKibbon KA. Informatics interventions. In: Straus E, Tetroe J, Graham ID, eds. *Knowledge Translation in Health Care: Moving from Evidence to Practice*. 2nd ed. Hoboken, NJ: Wiley Blackwell/BMJ Books; 2013:189–96.