

Coordination of cancer care between family physicians and cancer specialists

Importance of communication

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Abstract

Objective To explore health care provider (HCP) perspectives on the coordination of cancer care between FPs and cancer specialists.

Design Qualitative study using semistructured telephone interviews.

Setting Canada.

Participants A total of 58 HCPs, comprising 21 FPs, 15 surgeons, 12 medical oncologists, 6 radiation oncologists, and 4 GPs in oncology.

Methods This qualitative study is nested within a larger mixed-methods program of research, CanIMPACT (Canadian Team to Improve Community-Based Cancer Care along the Continuum), focused on improving the coordination of cancer care between FPs and cancer specialists. Using a constructivist grounded theory approach, telephone interviews were conducted with HCPs involved in cancer care. Invitations to participate were sent to a purposive sample of HCPs based on medical specialty, sex, province or territory, and geographic location (urban or rural). A coding schema was developed by 4 team members; subsequently, 1 team member coded the remaining transcripts. The resulting themes were reviewed by the entire team and a summary of results was mailed to participants for review.

Main findings Communication challenges emerged as the most prominent theme. Five key related subthemes were identified around this core concept that occurred at both system and individual levels. System-level issues included delays in medical transcription, difficulties accessing patient information, and physicians not being copied on all reports. Individual-level issues included the lack of rapport between FPs and cancer specialists, and the lack of clearly defined and broadly communicated roles.

Conclusion Effective and timely communication of medical information, as well as clearly defined roles for each provider, are essential to good coordination of care along the cancer care trajectory, particularly during transitions of care between cancer specialist and FP care. Despite advances in technology, substantial communication challenges still exist. This can lead to serious consequences that affect clinical decision making.

EDITOR'S KEY POINTS

- Efforts have been made to improve communication and information exchange using more technology; however, personal interaction is also needed to foster more collegial relationships between primary and specialty care providers to better open those lines of communication.
- There is a need for clearly defined roles that are broadly communicated among the health care team to better manage cancer patients, particularly those who are still receiving care and follow-up from multiple physicians. Duplication of tests and unnecessary appointments were described as common concerns.
- The important conclusion is not so much the documentation of the details of these communication challenges, but rather that these issues have not been adequately addressed and are still prevalent after many years. It is clearly a very complex issue that does not lend itself to easy or rapid solutions.

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Coordination des soins entre médecins de famille et spécialistes du cancer

Importance de la communication

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Résumé

Objectif Déterminer ce que pensent les soignants de la coordination des soins entre MF et spécialistes du cancer.

Type d'étude Étude qualitative à l'aide d'entrevues téléphoniques semi-structurées.

Contexte Le Canada.

Participants Un total de 58 intervenants dont 21 MF, 15 chirurgiens, 12 oncologues médicaux, 6 radiologistes oncologues et 4 omnipraticiens travaillant en oncologie.

Méthodes Cette étude qualitative fait partie d'un programme de recherche plus vaste utilisant différentes méthodes, le CanIMPACT (*Canadian Team to Improve Community-Based Cancer Care along the Continuum*), qui vise à améliorer la coordination entre MF et spécialistes dans le traitement du cancer. Au moyen d'une théorie ancrée constructiviste, on a effectué des entrevues téléphoniques avec différents intervenants qui participent au traitement des cancéreux. Des invitations à participer ont été adressées à un échantillon raisonné de soignants en fonction de leur spécialité

médicale, de leur sexe, de leur province ou territoire de pratique et de leur situation géographique (urbaine ou rurale). Un mode de codage a été établi par 4 des membres de l'équipe; ensuite, un membre a codé les transcrits restants. Les thèmes obtenus ont été révisés par tous les membres et un sommaire des résultats a été adressé aux participants pour révision.

POINTS DE REPÈRE DU RÉDACTEUR

- On s'est efforcé d'améliorer la communication et l'échange d'information au moyen de la technologie; mais pour mieux utiliser ces voies de communication, il faut aussi des interactions personnelles pour favoriser une relation plus collégiale entre les soignants de première ligne et ceux qui fournissent les soins spécialisés.

- Afin de mieux traiter les cancéreux, il faut que les rôles de chacun des intervenants soient clairement définis et communiqués à tous les membres de l'équipe, et ce, surtout pour les patients qui reçoivent toujours des soins et qui sont suivis par plusieurs médecins. Parmi les sujets de préoccupation, mentionnons la duplication d'examen et les rendez-vous non nécessaires.

- Ce qu'il faut surtout retenir, ce n'est pas tant la documentation détaillée de ces problèmes de communication, mais plutôt le fait qu'on ne s'en est pas occupé adéquatement et qu'ils subsistent après plusieurs années. Il s'agit évidemment d'un sujet très complexe qui ne sera pas résolu facilement ni rapidement.

Cet article a fait l'objet d'une révision par des pairs.
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Principales observations Les problèmes de communication sont apparus comme le thème principal. On a trouvé cinq principaux sous-thèmes interreliés associés à ce concept majeur, et ce, tant aux niveaux du système que des personnes. Au niveau systémique, on notait des délais de transcription médicale, des difficultés à obtenir des informations sur les patients et l'absence des données de certains médecins dans les rapports; au niveau individuel, mentionnons l'absence de rapports entre les MF et les spécialistes du cancer, et le fait que les différents rôles n'étaient pas clairement définis ni bien expliqués aux participants.

Conclusion Communiquer des informations médicales de façon efficace et opportune, et définir clairement les rôles de chaque soignant sont des éléments essentiels pour assurer une bonne coordination des soins durant toute la période de traitement du cancer, notamment lors du transfert des soins entre spécialistes et MF. En dépit des progrès de la technologie, il persiste d'importants problèmes de communication. Cela peut avoir des conséquences graves, susceptibles d'influencer la prise des décisions cliniques.

Coordinating the care of cancer patients can be very complex and challenging. Patients often need to consult many health care providers (HCPs) in multiple settings from the time they are diagnosed through to the survivorship phase. With so many involved, the care of these patients can become fragmented and uncoordinated. Efficient coordination of patient care between primary health care and cancer specialist providers has emerged as a key strategy for enhancing the quality of cancer care delivery and improving outcomes for patients.^{1,2} However, many challenges exist in ensuring smooth transitions of patient care among the various HCPs and settings involved.

The concept of coordination of care can be confusing, as terms such as *integration of care*, *transitional care*, *patient handoffs*, *continuity of care*, and *patient-centred care* are often used interchangeably.³⁻⁵ McDonald and colleagues define *coordination of care* as “the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient’s care to facilitate the appropriate delivery of health care services.”³ Communication breakdowns in the coordination of care among HCPs have been recognized as one of the root causes of adverse patient events.⁶⁻⁸ Greenberg and colleagues argue that communication breakdowns are mostly related to information not being transmitted or received, or information being communicated inaccurately.⁹

For cancer patients, the coordination of care can be even more complex. While cancer patients remain based in primary care as their medical home, they often transition between appointments with primary and specialty care providers, then end up back in primary care for long-term follow-up. Cancer care often involves HCPs at multiple institutions and clinics, and in some cases they might even be located in a different province, city, or health region. For patients living in rural and remote areas, care coordination challenges might be amplified, as cancer care typically requires travel to larger centres and most patients rely on their primary care providers to maintain continuity of care. In 2010, Walsh and colleagues identified a great need for improvement of support and the provision of information between primary and specialty care providers.¹⁰ Although electronic medical records have been developed to facilitate information transfer among care providers within an integrated health care centre, research has shown that communication with systems outside these specialty care centres remains difficult.¹¹ Even within these specialty care centres that have advanced electronic medical records, missed test results and miscommunications resulting in diagnosis or treatment delays are common.¹²

Given the complexities of cancer care, effective care coordination is needed to ensure all patients receive timely, appropriate, and equitable care to maximize

improvement of patients’ experiences and health outcomes.¹³ An important step toward improving health outcomes is to identify barriers to effective coordination of cancer care from the perspectives of those involved in providing health care. The Canadian Team to Improve Community-Based Cancer Care along the Continuum (CanIMPACT) is a mixed-methods research program focused on improving the coordination of care for cancer patients between FPs and cancer specialists.¹⁴ The goal of this study, nested within the CanIMPACT research program, was to explore stakeholder perspectives related to the coordination of cancer care between FPs and cancer specialists. Specifically, this paper will focus on the perspectives of HCPs involved in cancer care from across Canada.

METHODS

We used a constructivist grounded theory approach involving semistructured telephone interviews. *Grounded theory* is a qualitative methodology that focuses on the generation of theory that is grounded in the data collected.¹⁵ *Constructivist grounded theory* is based on the epistemologic underpinnings of constructivism, a theoretical paradigm that rejects the notion of an objective reality in favour of a belief that reality is socially constructed. This approach encourages researchers to be actively involved in the data collection process as they interact with participants by asking questions and inviting clarifications or elaborations on different aspects of the phenomenon under study.¹⁶

Before participant recruitment and data collection, ethics approval was obtained from all relevant research ethics boards. Letters of invitation to participate were sent to a selection of FPs, surgeons, and radiation and medical oncologists across Canada using contact information obtained from the online directories of the provincial colleges of physicians and surgeons. We used a purposive sampling strategy to ensure diversity of participants based on medical specialty, sex, province or territory, and geographic location (urban or rural). A reply card was included with the invitation letter and interested physicians could contact the research coordinator by fax, e-mail, or telephone (toll-free) to schedule an interview. A screening telephone interview ensured that all who wanted to participate had experiences working with cancer patients. All information was sent in both French and English, and potential participants were given the option to select their preferred language for the interview.

During interviews, participants were asked to reflect on and describe their experiences with continuity and coordination of care during their patients’ cancer journey through the diagnostic, treatment, and survivorship

phases. Specifically, participants were asked to discuss areas they believed worked well in the cancer care system as well as the areas that needed improvement. The interview concluded with recommendations from the participants on ways to improve the coordination of cancer care between primary and specialty care. All interviews were digitally recorded, transcribed verbatim, and checked for accuracy.

Three co-investigators (B.M., M.A.O., and J.C.C.) and the research coordinator (J.E.) read the same 3 transcripts independently and developed a coding scheme during a 2-day meeting. The rest of the transcripts were coded line by line by the research coordinator (J.E.) to ensure consistency using the constant comparison method. Coding was refined through continued discussion among team members. The coding process was facilitated by the qualitative data analysis program NVivo 10. Participants received a summary of study findings at the completion of data analysis and were invited to review and comment as a form of member checking.

FINDINGS

In total, 58 HCPs participated in this study: 21 FPs, 15 surgeons, 12 medical oncologists, 6 radiation oncologists, and 4 GPs in oncology. A summary of the participant characteristics is presented in **Table 1**.

The core concept that we identified from the data was *communication challenges*. We identified key related subthemes around this core concept that occurred at both system and individual levels (**Table 2**). At the system level, communication challenges included delays in medical transcription, difficulties accessing patient information, and HCPs not being copied on all reports. Subthemes at the individual level included lack of clearly defined and broadly communicated roles, and lack of rapport between FPs and cancer specialists.

Delays in medical transcription

Many participants discussed delays in the transcription of medical dictations as a serious challenge. These delays were not unique to any single region, but were experienced by physicians across Canada. The delays ranged from minor (1 to 2 weeks) to substantial (6 to 8 weeks). Both FPs and cancer specialists described these transcription delays as very problematic and gave examples of how the delays at times had a direct effect on the quality and timeliness of patient care delivery. Patients sometimes experienced delays in receiving their test results, treatment recommendations, or medical advice owing to the lag in the transcription services and the availability of consultation and physician notes.

Table 1. Summary of participating health care provider characteristics: N = 58.

CHARACTERISTICS	N (%)
Medical specialty	
• FP	21 (36)
• Surgeon (general surgeon or surgical oncologist)	15 (26)
• Medical oncologist	12 (21)
• Radiation oncologist	6 (10)
• GP in oncology	4 (7)
Location	
• Urban	45 (78)
• Rural	13 (22)
Sex	
• Male	30 (52)
• Female	28 (48)
Region	
• Western Canada (BC, AB, SK, MB)	16 (28)
• Central Canada (ON, QC)	13 (22)
• Eastern Canada (NB, PE, NS, NL)	23 (40)
• Territories (NT, NU, YT)	6 (10)

AB—Alberta, BC—British Columbia, MB—Manitoba, NB—New Brunswick, NL—Newfoundland and Labrador, NS—Nova Scotia, NT—Northwest Territories, NU—Nunavut, ON—Ontario, PE—Prince Edward Island, QC—Quebec, SK—Saskatchewan, YT—Yukon Territory.

Difficulties accessing patient information

One of the most commonly cited factors, described by participants as being key to efficient coordination of care, was having easy and timely access to patient information and consultation or physician notes. However, accessing this information was described as being very challenging for many FPs and cancer specialists. Specifically, one of the biggest challenges discussed was the incompatibility of electronic medical record software programs. Each institution, physician, or clinic might use a different software program to access and upload patient information, and others continue to use paper charts or a combination of both. These patient information systems are not always compatible, up-to-date, or easily accessible, which often creates a very frustrating and time-consuming process for physicians trying to find the information needed about their patients. For cancer specialists who work in multiple clinics, the challenges are often even more pronounced.

Physicians not copied on all reports

Another communication issue that emerged from the data, particularly for FPs, was the problem of not being consistently copied on patient reports by other cancer care providers. Many surgeons also stated that they would like to consistently receive more reports on

Table 2. Illustrative participant quotes highlighting communication challenges in the coordination of care

ORGANIZATIONAL LEVEL	SUBTHEMES	ILLUSTRATIVE QUOTES
Macro or meso (system-level issues)	Delays in medical transcription	<ul style="list-style-type: none"> • "Dictations are usually done in a timely fashion from the person-dictating-them point of view; however, transcription sometimes becomes an issue. And if you don't have access to a dictation from the [hospital name] for 2 months and a person comes in and you don't know at all where they are at, even in terms of treatment cycle or what they are doing, or what the plan is, it's very hard. You feel like you are totally out in the dark dealing with a patient who is fairly complicated and you feel like you are not giving them the quality service that you should be able to give them" (Male FP, interview 34)
	Difficulties accessing patient information	<ul style="list-style-type: none"> • "Sometimes I find that there's a big delay in written documents being transferred There [are] the hospital-based electronic files, and then there is the clinic-based electronic medical record and they don't always talk to each other, or [it] seems like things are either delayed or lost in the shuffle. So there is a lot of tracking down on the part of me and my staff here to see the most up-to-date information. It can be very frustrating" (Female FP, interview 47) • "I use one software program in the acute care hospital, a different program in the cancer agency that does not communicate with the one in the hospital, and a third program in the radiation oncology department ... then primary care providers use 1 [of] 6 different software programs" (Male GP in oncology, interview 9) • "Unfortunately the electronic chart system we use [in the cancer centre] is not the same as that of our regional health authority It's a sort of permanent state of inefficiency, miscommunication, and duplication" (Female medical oncologist, interview 38)
	Physicians not copied on all reports	<ul style="list-style-type: none"> • "Communication [with the cancer centre] is average at best Consult letters come unreliably; biopsy reports come back to me unreliably. Generally, it's about 60% I get and 40% I never see" (Male FP, interview 56) • "I would recommend that oncologists start dictating notes every time they see a patient and make sure a copy goes to all of the individuals that are taking care of that patient so that (a) there's no duplication of investigations and (b) everybody know[s] where they stand in terms of people's thoughts and treatments ... and what kind of follow-up investigations ... and examinations are going to be ongoing, so that the patient doesn't see 3 doctors in 1 month and then nobody for a year" (Male general surgeon, interview 2)
Micro (individual- or practice-level issues)	Lack of rapport between FPs and cancer specialists	<ul style="list-style-type: none"> • "It should be our responsibility as medical oncologists We need to invite them [FPs] for at least a meeting, at least to get together to know each other even just to say 'Hello, how are you.' The problem is, which is no excuse, we are so busy At least, if you meet people face to face, it makes it much easier for family physicians to pick up the phone and call you" (Male medical oncologist, interview 32) • "I haven't even physically met a lot of the oncologists so I find that's a bit of a barrier because you don't create those working relationships and they can't just drop by and say 'Oh, you know, I saw your patients, they are doing better' or 'They are doing worse; I'm going to do this'" (Male FP, interview 51)
	Lack of clearly defined and broadly communicated roles	<ul style="list-style-type: none"> • "They [the cancer specialists] will send out a letter to me, the referring surgeon, and to the family doctor and they give general guidelines about what to do for the next 5 years I always call the patient back in because I operated on them, then I'll find out they've already had a CT [computed tomography] organized by their family doctor and so we get some duplicate testing going on They [cancer specialists] give recommendations but don't say ... 'General surgeon should do this,' or 'GP should do it.' They say 'either-or' and then there is a bit of confusion" (Male general surgeon, interview 23) • "I do feel kind of lost about who exactly is following up with the patient I sometimes wonder if there is not duplication of care. You know, for patients post-care, they are very compliant with coming back. They want to make sure that they are OK, so if you ask them to come back they will come back, but I'm not sure I'm doing much more for them than with the oncologist or the family physician. So maybe they're seeing me unnecessarily or seeing the oncologist or family physician unnecessarily, and it just seems like a lot of duplication. It's just not always clear" (Female general surgeon, interview 52)

patients that they might provide follow-up care for after the completion of acute treatment in oncology. Keeping everyone informed might eliminate duplication of tests and confusion regarding follow-up care.

Lack of rapport between FPs and cancer specialists

Despite advances in communication technologies, many physicians stressed the importance of building good relationships with colleagues, which often requires more face-to-face interaction. This rapport development between physicians was described by many as a key component to working as a team to deliver high-quality care to cancer patients and to help foster collegiality. A good working relationship with colleagues was described by many as a very positive factor that contributes to better coordination of care. Many stated that they refer to and consult with the physicians they know personally or have worked with in the past before reaching out to other less familiar physicians. The lack of face-to-face interaction was described by a number of FPs and cancer specialists as a substantial barrier to communication. Some suggested finding ways to encourage local FPs and cancer specialists to meet or collaborate together through workshops or symposiums, or even informally at social events to help create stronger networks and foster collegiality.

Lack of clearly defined and broadly communicated roles

Another prominent communication issue discussed by the HCPs was specifically related to the coordination of cancer follow-up care. Many participants discussed the confusion that sometimes arises after patients are discharged from the cancer clinic over which physician is in charge of what part of the cancer follow-up care. This issue was discussed particularly by surgeons who believed they already had to follow up with their patients after surgery; however, it is not always clear whether they should also be ordering tests or addressing any other follow-up care issues or concerns related to comorbidities. The lack of clearly defined or broadly communicated roles for each physician can lead to unnecessary duplication of care. Participants who described positive experiences with cancer care coordination often attributed them to role clarity and open communication between physicians, as well as with patients, about these roles and expectations. Coordination of care works a lot more smoothly when everyone involved, including the patient, is on the same page and kept in the loop.

DISCUSSION

Good communication among HCPs and with patients was the most commonly cited factor contributing to a

positive experience with the coordination of cancer care, and poor communication was the most commonly cited factor contributing to a negative experience. Overall, the findings from this CanIMPACT qualitative study highlight the substantial communication challenges that are prevalent in the coordination of cancer care between FPs and cancer specialists. These communication issues are not specific to any single region or institution but seem to be widespread across the country. Although it was assumed that modern technologies such as electronic medical records would improve communication between HCPs, in reality they added a layer of complexity, with many challenges related to software incompatibility and difficulty accessing patient information.^{11,17} In a 2011 study conducted by Walsh and colleagues, HCPs highlighted ineffective information exchange as a key factor contributing to their inability to stay up-to-date with their patients' care.¹³ Efforts have been made to improve communication and information exchange using more technology; however, our findings suggest that personal interaction is also needed to foster more collegial relationships between primary and specialty care providers to better open those lines of communication. As Arora and colleagues point out, technology is important but cannot be relied on as a substitute for personal interaction and verbal communication.¹⁸

Consistent with the findings of Sada and colleagues, our study also highlights the need for clearly defined roles that are broadly communicated among the health care team to better manage cancer patients, particularly those who are still receiving care and follow-up from multiple physicians.¹¹ Duplication of tests and unnecessary appointments were described as common concerns for the participants in our study. Lack of communication is a direct cause of such duplication of care and ends up costing time, money, and energy for both the providers and the patients. This inefficiency could be greatly reduced if roles were more clearly delineated between the various care providers involved.

Our findings add to a large body of research documenting communication problems within the health care system, some of which date back more than a decade.^{9,10,13,18-23} The important conclusion of this study is not so much the documentation of the details of these communication challenges, but rather that these issues have not been adequately addressed and are still prevalent after so many years. It is clearly a very complex issue that does not lend itself to easy or rapid solutions.

Communication challenges are rooted in the 3 organizational levels: macro, meso, and micro. The macro level represents the health system policy level (eg, federal and provincial policies, resource allocation), the meso level represents the health care organization and community level (eg, health authorities, hospitals, community programs), and the micro level represents the individual

level (ie, day-to-day clinical interaction among HCPs and with patients).²⁴ We divided our findings into 2 levels: system issues, which relate to the macro and meso organization levels; and individual or practice issues, which relate to the micro organization level. We argue that to enhance communication, all 3 organizational levels need to be involved to help improve communication among HCPs, with particular attention to the micro-level interactions. Policies and clinical practices on the macro and meso levels need to focus on improving technological and system issues contributing to these communication challenges. However, these solutions often take a long time to design, test, and implement. On the micro level, simple steps such as making concerted efforts to foster collegiality and encourage discussions among providers about various roles and expectations might be the key to facilitating better coordination of cancer care. Efforts to keep all HCPs informed can be made at a system level by using technology (where available) to automatically copy reports to all those involved and improve access to information, as well as at an individual level by encouraging HCPs to make continued efforts to inform and engage with others involved in the care of the patient. It also cannot be assumed that one model of coordination of care fits all, as it is sensitive to local conditions.²⁵ Although communication might be taken for granted and often gets overlooked compared with other clinical concerns that might take priority, in reality it is the backbone of the framework for providing high-quality patient care and improving the overall coordination of cancer care.

Limitations

Although findings from this study provide insight into communication barriers that exist throughout the coordination of cancer care, it does have some limitations. The study results are based on a theoretical sample and therefore cannot be generalized to all FPs and cancer specialists in Canada. Nonetheless, the authors are confident that the participants represented a variety of primary and specialist care providers, and included a diverse range of relevant medical specialties and geographic locations. Second, as is the case with most research, physicians who have experienced challenges with the coordination of care might have been more inclined to respond to the invitation to participate.

Conclusion

Effective and timely communication is essential to good coordination of care along the cancer care trajectory, particularly during transitions of care between cancer specialists and FPs. Despite advances in technology, substantial challenges around communication still exist. In turn, this can lead to serious consequences that affect clinical decision making about patient care.

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Contributors

Ms Easley is the research coordinator for the study, was responsible for collecting and analyzing the qualitative data, and wrote the first draft of this manuscript. **Dr Miedema** is the lead for the qualitative group, supervised the data collection and analysis, assisted with the data analysis framework, and contributed to writing and editing this manuscript. **Drs Carroll** and **O'Brien** assisted with the development of the data analysis framework and contributed to the writing and editing of this manuscript. **Drs Manca** and **Webster** are members of the qualitative group and assisted with the editing of this manuscript. **Dr Grunfeld** is Principal Investigator for the Canadian Team to Improve Community-Based Cancer Care along the Continuum, contributed to the overall study design, managed team members, and contributed to the editing of this manuscript.

Competing interests

None declared

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