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General Practitioners' perceptions of their role in cancer care and factors which influence this role

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What is known about this topic

- Cancer care is complex and logistically difficult to co-ordinate across disciplinary and sectoral boundaries.
- GPs' role in cancer care is variable and poorly defined across the trajectory and differs by geographical location.

What this paper adds

- Some GPs fill a major cancer care role, usually at the patient's request, but often requiring additional time and effort, and unsustainably high levels of commitment.
- Having an established relationship with a cancer specialist enhances GPs' role in cancer care, but requires experience and familiarity with the system.
- System-generated access to relevant records plus adequate resources and incentives will enhance GPs' role in cancer care.

Abstract

Effective cancer care depends on inter-sectoral and inter-professional communication. General Practitioners (GPs) play a pivotal role in managing the health of most Australians, but their role in cancer care is unclear. This qualitative study explored GPs' views of this role and factors influencing their engagement with cancer care. Twelve metropolitan and non-metropolitan GPs in Queensland, Australia, were recruited between April and May 2008, and three focus groups and one interview were conducted using open-ended questions. The transcripts were analysed thematically. The first theme, GPs' perceptions of their role, comprised subthemes corresponding to four phases of the trajectory. The second theme, Enhancing GPs' involvement in ongoing cancer care, comprised subthemes regarding enhanced communication and clarification of roles and expectations. GPs' role in cancer care fluctuates between active advocacy during diagnosis and palliation, and ambivalent redundancy in between. The role is influenced by socioeconomic, clinical and geographical factors, patients' expectations and GPs' motivation. Not all participants wanted an enhanced role in cancer care, but all valued better specialist–GP communication. Role clarification is needed, together with greater mutual trust between GPs and specialists. Key needs included accessible competency training and mentoring for doctors unfamiliar with the system. Existing system barriers and workforce pressures in general practice must be addressed to improve the sharing of cancer care. Only one metropolitan focus group was conducted, so saturation of themes may not have been reached. The challenges of providing cancer care in busy metropolitan practices are multiplied in non-metropolitan settings with less accessible resources and where distance affects specialist communication. Non-metropolitan GPs learn from experience how to overcome referral and communication challenges. While the GPs identified solutions to their concerns, the role can be daunting. GPs are motivated to provide long-term care for their patients, but need to be acknowledged and supported by the health system.

Keywords: cancer, care coordination, communication, General Practitioner, multidisciplinary care, rural

Introduction

The complexity of cancer care generates multiple challenges for cancer patients, who need continuing involvement from a range of health professionals. New levels of co-operation are required across the health system as increasing survivorship places greater pressure on General Practitioners (GPs) and cancer specialists to provide quality cancer care. In this article, the sharing of cancer care refers to multidisciplinary care provided to cancer patients across the trajectory from prediagnosis to the patient's death. This paper explores GPs' views regarding their role in cancer care in geographically diverse locations.

Cancer is a leading international cause of morbidity and mortality (Australian Government 2007, World Health Organization 2011). The volume of patients will increase as the population ages and age-related diseases including cancer become more prevalent (Australian Institute of Health and Welfare 2002, Biggs 2008). Early diagnosis and prompt treatment are critical to improved patient outcomes, but require excellent communication between generalist and specialist care providers (Cornford *et al.* 2004, Jiwa *et al.* 2007).

In Australia, basic health-care is funded by an income tax surcharge, and delivered as a universal health insurance scheme for outpatient care and as grants to public hospitals for inpatient services. About half of the population pay private insurance for prompt access to their preferred doctor and hospital. Australian general practices are organised on a fee-for-service basis, operating as independent businesses owned by one or more GPs. There has been a recent increase in corporately owned and managed practices, some listed as public companies on the Stock Exchange. While this reduces the practice administration component of GPs' work, it has led many to adopt a commercial approach to service delivery, deterring both house calls and the provision of complex care (Rhee *et al.* 2008).

Although multidisciplinary care is recognised as the cornerstone of good cancer care (Munday *et al.* 2007), collaborating across sectoral and professional boundaries can be difficult. In the UK, where multidisciplinary planning for palliative care is embedded in primary care using the Gold Standards Framework (GSF) policy, organisational characteristics of practices, and particularly the presence of an enthusiastic clinical leader within a practice, appear crucial for successful implementation (Munday *et al.* 2007).

In Australia, specialists' finite capacity for managing chronic conditions has contributed to recent interest in enhancing the capacity of primary care (Harris & Zwar 2007), but GPs also work under pressure. They may feel deterred from providing cancer care because of the limited availability of guidelines specific to the primary care setting, the complexity of referring patients onto the appropriate secondary care pathway, inadequate access to their patient's status regarding recent investigations and hospital services; tardy specialist feedback after referral and communication difficulties with specialists (McConnell & Butow 1999, Norman *et al.* 2001, Papagrigoriadis & Koreli 2001, Farquhar *et al.* 2005, Daly & Collins 2007, Hewitt *et al.* 2007) act as disincentives.

Most follow-up and surveillance remain in the hands of specialists, so GPs often lose touch with their patients during active treatment (Papagrigoriadis & Koreli 2001, Farquhar *et al.* 2005). However, the GP may be patients' only local, comprehensive and consistent source of health-care, particularly in non-metropolitan areas. GP accessibility is important to patients (Grande *et al.* 2004), especially if an acute problem develops between specialist appointments. As most Australians see their GP at least annually (Knox *et al.* 2008), many GPs would have an established relationship with their cancer patients and understand their history and social context. GPs are thus uniquely positioned to support these patients.

Despite these advantages, GPs' role in the sharing of cancer care is still evolving. A Netherlands study (van der Kam *et al.* 1998) reported that 25% of the participating GPs were unclear about the distribution of tasks between themselves and specialists. The role fluctuates across the illness trajectory and by geographical distance from specialist services. Rural and remote GPs often coordinate cancer care routinely (O'Connor & Lee-Steere 2006, Hanks *et al.* 2008); and non-metropolitan hospitals already share cancer care (Clinical Oncological Society of Australia 2006). However, most metropolitan GPs refer cancer patients for treatment and resume care after treatment, as others (Aubin *et al.* 2010) have found. GPs' individual preferences add to this diversity, as not all wish to accept the professional and personal challenges of such a role (Wood & McWilliam 1996, Papagrigoriadis & Koreli 2001).

Considerable effort has been expended globally to enhance the relationship between GPs and specialist cancer providers (Forrest *et al.* 2005, Siggins Miller 2008). The evidence suggests that patients followed up collaboratively after acute care fare as well as those followed by specialist clinics alone (Grunfeld *et al.* 1996, 2006, Mahboubi *et al.* 2007). However, patient suitability must be assessed carefully. While many patients appreciate GP-based care (Kendall *et al.* 2006), some prefer specialist follow-up (Renton *et al.* 2002, de Bock *et al.* 2004).

Cancer care skills are important in non-metropolitan practices, but gaining these skills is problematic. Metropolitan-based training is often inaccessible to non-metropolitan GPs, and specialists may be concerned that insufficient ongoing clinical experience will lead to inadequate care by GPs (Hoon *et al.* 2009). In non-metropolitan practices, however, GPs often rely on generic skills adapted to cancer care, so access to appropriate information may be as helpful to these GPs as cancer-specific skills. Several initiatives (Cancer Australia 2010) have sought to enhance GPs' role in cancer care, including demonstration projects to facilitate multidisciplinary care, continuing professional development, web-based treatment protocols for cancers and cancer symptoms

(Cancer Institute NSW 2011), and the Education Program in Cancer Care now accessible to non-metropolitan Australian practitioners.

The problem is also being addressed in training of junior doctors and GP registrars (Postgraduate Medical Education Councils of Australia 2010). The cancer curriculum in Australian GP training focuses on prevention, early detection, appropriate referral and advocacy, but little on the sharing of care with oncologists (Royal Australian College of General Practitioners 2011).

Despite the gains of previous research, GPs' role in cancer care remains poorly defined. Our fundamental assumption was that, as cancer is often a chronic illness requiring multiple care providers in different settings, GPs would favour an approach that enhances continuity of care for their cancer patients (Haggerty *et al.* 2003). Therefore, the purpose of this study was to explore GPs' views of how cancer care is provided, their current and potential role in cancer care, factors which influence their engagement with cancer care and potential solutions.

Methods

A qualitative design was used because its flexible and open approach (Patton 2002) would enable us to understand GPs' perceptions. Using focus groups enabled participants to express their opinions through peer interaction in a natural environment, enabled comments to be probed and yielded data with high face validity (Krueger 1994).

Sample and recruitment

Twelve practising GPs were recruited in April–May 2008 from metropolitan and non-metropolitan centres in southern Queensland, by advertising through local Divisions of General Practice and through snowballing. To achieve the maximum possible number of focus groups within the brief study time frame, one author (AL) liaised with Division personnel to ensure that local GPs were aware of the study and followed up any enquiries. Ethical clearance was obtained from a Human Ethics Committee at The University of Queensland. Information/consent forms were mailed to interested GPs, and participants gave informed voluntary consent in writing. Reimbursement was offered at the current recommended rate.

Data collection

Focus groups were conducted face-to-face, near the participants' practice location. One rural GP was interviewed, as no other GPs in that locality had expressed interest. Each session took up to two hours, and was led by an experienced moderator (LB). An assistant moderator (AL) took field notes to record key non-verbal communications and overall impressions. A professional stenographer took real-time verbatim recordings, replacing participants' names with codes, and provided a written transcript within 3–5 days.

Open-ended and supplementary questions (see Box 1) were developed from the literature to generate dialogue around four key areas: referral pathways, care co-ordination, enhancing communication and developing partnerships between GPs and specialist cancer services. The questions formed an interview guide, which provided a consistent framework for each session with the flexibility to provide additional insights. Standard demographic and professional background information was collected from participants.

Box 1 Interview questions

Opening question
What factors have an impact on the quality of outcomes for cancer patients?

Referral pathways
1 What steps are needed for you to get a patient from one point of service to another?
2 How could the referral process be improved to ensure timely access to multidisciplinary teams?

Care co-ordination
3 What stages of the cancer journey could be improved with better co-ordination?

Enhancing Communication
4 What are the key components of good communication between cancer services and GPs?
5 Tell us about your current experience of communicating with cancer services in non-metropolitan or metropolitan hospitals in Queensland
6 How well could a co-ordinated online referral and communication system work for GPs?
7 What is your experience with internet-based links to other health professionals?
8 Tell us about any issues regarding electronic communications between GPs and other service providers

Developing Partnerships
9 What role could GPs play in the ongoing management of cancer patients?
10 In what ways could this role be of benefit to patient care and planned outcomes?
11 What might enhance GPs' involvement in such a role?
12 What factors might impede GPs' involvement in cancer care?

Closing question
Are there any other issues you wish to raise about GPs' role on the cancer care team?

Data analysis

The data were analysed thematically (Braun & Clarke 2006). The transcripts were read several times to develop familiarity with the content. Units of data were identified and sorted into descriptive categories to correspond with the four key topics, as well as any newly emerging categories. The categories were clustered by similarity of meanings to develop themes. The field notes were used to enhance the underlying meanings. The themes were illustrated by transcript quotations, providing a common thread to the findings. The team worked independently during this process, resolving disagreements through discussion. Participants were identified by a code indicating metropolitan (M) or non-metropolitan (N), and a participant number. For example, [1N2] refers to the first non-metropolitan group and the second GP to speak in that group. Words omitted are indicated by ''…'', and editorial comments within quotations are enclosed in square parentheses.

Findings

Sample characteristics

Eleven GPs attended one of three focus groups: one metropolitan and two non-metropolitan; one GP was interviewed. The participants' demographic characteristics are presented in Table 1.

The themes were organised to correspond with stages in the patient's cancer journey (Siggins Miller 2008), to highlight the changing GP role and factors which influenced the role. The overarching themes were: (1) GPs' perceptions of their role and (2) Enhancing GPs' involvement in ongoing cancer care.

Theme 1: GPs' perceptions of their role

During diagnosis: leading the way, facilitating the pathway to treatment.
The GPs felt that their role during this phase was clearly defined, although the time and effort required were subject to fluctuation. They expected to take a leading role, as ''the diagnosis is our territory…[while specialists have] the expertise in management'' [1N3]. It is ''all part and parcel'' [1N2] of GPs' role to ensure that pathology tests have been completed locally before the patient's hospital appointment, and that:

> …each step [is] done in a good timeframe to ensure that the impact, when they finally get to the chemo, is going to be as good as possible. [1N2]

Table 1 Participant demographics ($N = 12$)

Characteristic	Sample (*N*)
Age groups	
<50 years	6
50–59 years	3
60–69 years	3
Gender	
Male	3
Practice location	
Metropolitan	3
Non-metropolitan	9
Practice size	
2–4 GPs	3
>4 GPs	9
Hours per week	
1–3 sessions*	1
4–7 sessions	5
>7 sessions	6

*1 session is approximately 3½ hours' direct consulting time with patients.

GPs sometimes needed to intervene in the referral process to ensure timely progress. For example, urgent referrals for public patients often required substantial effort and knowledge of the system, particularly in non-metropolitan practices, as a rural GP explained:

> I spent three quarters of an hour chasing around to the [cancer specialist] at the [metropolitan public hospital], eventually got [the consultant] on the phone. She said ''Send [the patient] in tomorrow''. [2N6]

In contrast, private referrals were straightforward. It was a recurring comment that a single phone call to a private specialist sufficed, but phone referrals to public specialists were often taken by someone unable to make a decision about prioritising care. Non-urgent public referrals were usually processed through a faxed system. Without checking, GPs would be unaware how the referral was progressing because:

> They don't usually get back to the doctor. We usually do find that they get back to the patient, but you are never particularly sure. [2N2]

Lack of feedback during the public referral process left GPs feeling that they needed to monitor the progress of the referral, unless they received a confirmed diagnosis from a specialist. It was evident to the participants that, in such a scenario, inexperienced or overseas trained doctors could unwittingly place their patients at a disadvantage until they developed familiarity with the system and system personnel.

During active treatment: handing over or being available.
Perceptions of the GP role during this stage differed by location. Metropolitan GPs simply referred patients to nearby specialists. However, some non-metropolitan GPs already managed chemotherapy ''in the private sector under the supervision of the doctors in [capital city]'' [1N2]. After the initial specialist appointment, they might also organise pre-treatment pathology tests and assessments during active treatment cycles. A non-metropolitan participant reported that, although once common, chemotherapy was now rarely administered locally. Not all participants were convinced that local chemotherapy was feasible or advisable, as they were concerned over ''some problem with indemnity'' [1N1], and the eco-

nomic imperatives of general practice where ''you can't pay for space that is not used most of the time'' [M4].

Some GPs felt confident that, with a protocol and appropriate resources, some practice-based chemotherapy could be considered:

> Once it is set up, you should be able to do it. This is one chance to reduce public hospital bedding. [2N5]

> [You need] more space, more time, more nurses, more recognition from Medicare. [2N2]

> …[with] very common [cancers or treatments], I think, if we got support and training we would be very good at it. [M1]

During surveillance: monitoring and liaising, or stepping aside.

After the initial treatment, GPs found their role increasingly multidimensional, particularly in non-metropolitan locations. This may be due to carer illness or frailty, the effort and cost of travel, or patients' preferences for GP follow-up. GPs focused on supporting the patient and family, providing information ''in common language'' [2N3], and negotiating appropriate action so that their cancer patients 'feel supported through the journey' [2N6]. One GP explained that:

> The follow-up we often will do without anybody [supervising]…I have some patients who don't get back to see their treating surgeon for their breast cancer follow-up. They [prefer] to see me [rather than travel]. [1N3]

Improved case co-ordination between GP and specialist could avoid unnecessary trips by non-metropolitan patients. Many functions could be managed locally if the GP knew what was being planned. For example, a non-metropolitan patient:

> …went down [to capital city] and a nurse took her stitches out. That was six hours in the car. Then the next time …they had planned radiotherapy that time which previously hadn't been discussed. [2N2]

While GPs may have the capacity for a broader role during this phase, it was often constrained by professional etiquette and assumptions regarding role boundaries. For example:

> Sometimes you tend to back off, thinking that somebody more qualified [is providing care]…but the patient is left to their own devices. I wonder whether what [specialists] are doing is filling the gaps that a General Practitioner could easily be doing if they were in the know as to what was going on. [2N6]

The sharing of cancer care occurred on a case-by-case basis, particularly when the specialist was able to ''get to know our capacity'' [1N3]. This was also effective when the cancer recurred, and non-metropolitan GPs continued to liaise directly with specialists, bypassing the paper-based referral route. Some non-metropolitan preferred to remain under specialist care, regardless of the inconvenience and local capacity for follow-up. However, such perceptions sometimes changed:

> [Patients] will often say, ''They don't do anything down there that can't be done here. How about you guys here do it for me?'' … We have a number of patients who [attend the specialist to hear] something magic like ''Your platelet count is okay.''…but certainly here a lot of the stuff the specialists do for surveillance, we can certainly do and save that thirtieth trip down. [1N3]

In contrast, metropolitan patients did not need to weigh up the advantages of specialist care against the inconvenience and expense of travel and accommodation, and so tended not to see their GP during this phase. This left GPs in a marginal role. Being involved in their cancer patients' ongoing care was the exception rather than the rule:

> …the GP can get left out of the picture altogether except for being phoned up to say, ''The patient needs scripts for X, Y, Z. Can you send them along?'' – for which we obviously don't get paid at all…and they don't give you any information about what they are treating them for. [M4]

During palliation: managing needs and expectations.

Not all of the GPs expected palliative care to be a routine part of their role. As specialist palliative services are readily accessible, the involvement of metropolitan GPs requires an overt commitment, whereas non-metropolitan GPs perform palliative care as a matter of course. The more patients rely on GPs, the greater GPs need equipping for the role. GPs could activate support resources, because many patients and their family carers ''are not aware of all these [available resources]'' [3N1]. In palliative care, however, GPs must be available out of hours, do home visits and be prepared to shoulder a considerable load and occasional disruptions to normal routine. Although temporary, the effect can be problematic, because:

> Palliation…is such a lot of hard work for the GP…It just about killed me. [M2]

> You need that team approach…[I]f the GP is entirely responsible for the palliative care, it can be extremely time consuming and, if you have got a surgery full of patients and you know you can't just get away to go and see them every other day, it can become very burdensome so you really need that extra support don't you? [M4]

> You can at least get some sleep at night. [M2]

> …If you can work well with the local domiciliary nurses' team and if they have got a palliative care package, sometimes that can work quite well. [M4]

Theme 2: enhancing GPs' involvement in ongoing cancer care

Enhancing communication.

It was clear that adequate communication is integral to GPs' role in cancer care. The participants acknowledged GPs' responsibility to provide relevant information in referral letters, to minimise treatment delays, and they identified several core components of effective referrals to specialists (Box 2).

These ideals are not always met. Preparing an adequate summary for a specialist referral letter should be neither difficult nor unusual, yet some were:

> …[V]ery unhelpful. Some letters I have seen are basically ''Please manage this woman who has breast cancer,'' for example [1N3].

> That is where I think computers have made a huge difference. It is all typed out. You do a good summary and have the medications up-to-date. It is all very straightforward. [1N2]

These comments suggest that the quality of referrals may be influenced by how patient records in complex care are managed, as well as the extent of practice-based computerisation of patient-related data.

A better referral system at diagnosis would be highly advantageous, because:

> No one wants to work in a system that doesn't work. It leads to frustration, going through four hands, being transferred around [public] hospitals and trying to follow up. [2N2]

While GPs valued electronic communications, they preferred to interact with a clinician with decision-making authority, who would keep them informed regarding progress and ensure that essential information reaches specialists promptly.

The participants also described the information they desired in correspondence from specialist services (Box 3). This need not necessarily come from the specialist personally, nor would all information need to be in the feedback letter. However, it should be locatable and accessible, either electronically or in a printed format.

Box 2 Desirable components of GP referrals to specialists

- Diagnosis
  - Diagnosis to this point
  - Histology/test results
- History
  - Medical history
  - Family history
  - Allergies
  - Current medications
  - Psychosocial risks, e.g. depression, poor family support, family violence
- Other
  - Current legal status, e.g. wills, power of attorney
  - Any relevant oddities about the patient
  - A typed referral

It was apparent that specialists' communications did not always include information that is crucial to GPs' next encounter with their cancer patient. For example, GPs want to know:

> …[W]hat the specialist has told the patient and that's a bit hard to see in a letter. That's really important because patients often obviously don't hear… but often they are not told where they are at and it's difficult to have a conversation with them. [1N1]

The timeliness of specialists' communications was important to the GPs. Access to relevant details of their patient's public hospital records would be useful as:

> There is [a problem for GPs] trying to stay in the loop. Probably discharge from the hospital is better because it is more of an event. People have something to put their hand on. Information out of specialist clinics is slow…the patients are usually filling in the gaps, telling you what the plan is. [2N6]

Box 3 Desirable components of specialist feedback to GPs across the cancer trajectory

- During diagnosis and initial management
  - A clear description of the type and staging of the cancer
  - How the cancer was/is being treated
  - Future treatment plans
- During early follow-up
  - A clear description of the type and dose of chemotherapy
  - When the next dose is due
  - A profile of the side effects of the drugs (or a website where this information is available
  - How to respond to side effects
  - A statement regarding the current approach to care, e.g. surveillance or palliative
  - What the specialist has told the patient
  - A timeframe for review appointments, including which specialist and when
  - Expectations regarding who is to follow-up on minor events
  - Events to be referred back to the specialist
  - Which of concurrent specialists to refer back to, e.g. oncologist, radiologist, surgeon
  - Which tests have been carried out by the specialist
  - Which tests are required before the patient's next visit to the specialist
  - An invitation to contact the specialist regarding problems in the meantime
  - Readable format
  - A synoptic style of report, for reference
- During ongoing management
  - The long-term plan
  - What to expect (or a website where the following information is available)
  - Possible complications
  - What the specialist expects of the GP
  - What the GP can expect from the specialist
  - Palliative options

> You quite often see the patient before you see the information, so you are asking the patient, ''Well, what did they do?'' and then you get the letter two weeks later. [M4]

Seeking current information from patients' public hospital specialists causes delays, which are too costly for GPs to absorb, as ''ringing the hospital takes longer than a 15-minute consultation'' [M4].

The common points where GPs expected communications from specialists regarding their referred cancer patients were:

> At the beginning with a…diagnosis - hopefully that's where you have made the plan, what is intended to be done. We need to have something in the middle if something goes wrong, an event that occurs that changes that plan or adds to that plan. And then we need a discharge or a discontinuation of treatment because it might be that they are not discharged but their treatment has finished. [M1]

Clarifying roles and expectations.

Defining the GP role or a mechanism to negotiate it requires mutual respect between GP and specialist. This could lead to shared responsibilities, reduced patient burden due to excessive travel and less overloading of specialist clinics with tasks that competent generalists could easily do. There was a need for:

> …clearly articulated roles: what is our role, what are the expectations of other people around us, and some very clear information about their expectations of what is involved in the treatment for the patient, and the tasks that other people would like us to do. [2N6]

However, no universal GP role exists. Privately insured non-metropolitan patients already have the choice of local pre-treatment work-up, some chemotherapy and post-treatment follow-up by GPs. In non-metropolitan areas, less experienced GPs and international graduates may be reluctant to provide ongoing cancer care:

> [It is] not being readily taken up by the new generation of GPs …I know GP registrars who get the real willies about doing stuff like [chemo] without having a real big system and a lot of specialist support behind them… [1N3]

Like their non-metropolitan counterparts, the metropolitan GPs found that their patients expected them to be involved in their ongoing care, since:

> Whether we like it or not, we have the ongoing role in the patient's journey because they come to us. We can't cherry-pick and say we will do this and we will do that… [M2]

These comments suggest that GPs and specialists lack the opportunity and means to negotiate their complementary roles in ongoing cancer care.

Discussion

This study sheds light on the diversity of GPs' views regarding their current and potential role in cancer care. GPs fill a leading but temporary role during initial diagnosis. Their responsibility was not quite surrendered on referral, when some continued to expend time and effort despite uncertain role boundaries, to ensure that care was progressing appropriately. The involvement of GPs during the treatment phase was more contentious, with marked diversity in their current role and mixed opinion regarding the potential for shared clinical responsibility. All participants felt under-involved in their patients' ongoing surveillance, for want of opportunity rather than will, as they perceived that their skills were frequently under-acknowledged by patients and specialists during this phase. The intensity of the GP role during palliative care was particularly noticeable in non-metropolitan settings. In contrast, direct referral from oncology services to metropolitan specialist palliative care services is almost routine; it is simply easier, as some palliative care services are deterred by GPs' variable willingness.

Our findings confirm that GPs' challenges in cancer care are yet to be resolved, including communication problems and referral delays (Wood & McWilliam 1996, McConnell & Butow 1999, Norman *et al.* 2001, Papagrigoriadis & Koreli 2001, Farquhar *et al.* 2005, O'Connor & Lee-Steere 2006, Daly & Collins 2007, Del Giudice *et al.* 2009). The present study supports others' findings regarding GPs' fluctuating involvement in cancer care, which is greater during diagnosis (Hanks *et al.* 2008) and palliation (O'Connor & Lee-Steere 2006), but smaller in between (Farquhar *et al.* 2005). Furthermore, while multidisciplinary cancer care is known to improve patient outcomes, there is considerable uncertainty within specialist cancer services about how to facilitate this. (Mitchell 2008, Grunfeld & Earle 2010). The vastly different working environments make interdisciplinary care very difficult to achieve. Hence, specialist–GP interaction is often limited to the indirect methods of letters and discharge summaries. Defining roles for each discipline and devising ways to facilitate the sharing of ongoing care and decision making are complex but urgent tasks.

Having to personally seek out public hospital specialists by phone was as unacceptable to the participants as relying on patients for current information. While open to using electronic pathways to access relevant external information to complement their own records, participants' comments implied that impersonal modes of communication lack the sophistication to convey details that can be readily explained during a phone conversation with a specialist. This is an important consideration in the current trend towards electronic inter-sectoral communication. The participants expressed a desire for a stronger relationship with cancer specialists through bilateral improvements in written communication, as recommended by others (Wood & McWilliam 1996). Improving standard communication procedures between GPs and public hospital specialists would benefit patients who need prompt diagnosis and treatment. Routinely providing current clinical information to GPs would benefit cancer patients with concerns after diagnosis and treatment. Achieving this for non-metropolitan GPs in particular may confer major benefits on patients through reduced travel and greater certainty about the purpose of visits.

Whether the role is important to individual GPs is another matter. Our findings support previous national and international research (Worster *et al.* 1996, Del Giudice *et al.* 2009), which found that some GPs are conditionally willing to be more involved in their cancer patients' ongoing care; but not all seek this or see it as part of their remit (Papagrigoriadis & Koreli 2001). The quality of communication is clearly a key factor in both cancer care and the evolving GP role in cancer care, and the need for agreed roles between specialists and GPs requires mutual trust in each other's abilities.

Greater GP involvement is possible in post-treatment follow-up. The solutions involving structural changes support the findings of others (Farquhar *et al.* 2005, Daly & Collins 2007), but systemic constraints, particularly workforce pressures, limit GPs' involvement in cancer care (Sims & Bolton 2005). Appropriate remuneration and an enhanced public referral system would encourage them to accept an expanded role. Any changes to improve the formal sharing of cancer care will be complex and slow, however, and need to be addressed at a governmental level.

There have been systematic attempts to incorporate general practice into cancer care and palliative care. Among these is the presence of a GP change champion, who has overcome the problem of care coordination. The Uniting Primary Care and Oncology Network in Manitoba, Canada (Sisler & McCormack-Speak 2009), is a network of high quality general practices sharing cancer follow-up with the local specialist oncology service. In the UK, the GSF is a within-practice approach to identify people with palliative care needs and systematically address those needs as they arise (Thomas 2003). Others have extensively examined the role of GPs in palliative care in the UK (Barclay *et al.* 1999, 2003, Shipman *et al.* 2000, 2008). The problem of relying on a change champion is that of translating a good idea into embedded practice at a local level and into policy at a national level. The GSF has made this transition in the UK, thus placing it firmly in the mainstream of health-care. System-wide changes elsewhere include the palliative care initiative in Catalonia, Spain (Gomez-Batiste *et al.* 2008). Australian initiatives (Cancer Institute NSW 2011) have developed online information about cancer treatments tailored specifically to primary care practitioners.

The lack of role clarity also has important implications for continuing education. While it may appear that GPs lack competency and training for cancer care, sound generic clinical skills augmented by information about the special requirements of cancer care may be all that is needed to make GP-based cancer care feasible and practical. Access to shared records is a system problem, not a competency problem that requires a system-based solution. As their concerns are addressed, GPs' interest in this clinically challenging and rewarding area may increase, and the concerns of specialists regarding GPs' capacity for cancer care may decrease.

Limitations

While it is likely the authors' professional orientation influenced the framing of the study questions, it also anchored the questions to the literature and practice. The analysis may have been influenced by the investigators' belief that palliative care in general practice is a core task, but contrary views have been reported. Recruitment was limited by the scope of our timeline and resources. Fewer GPs than anticipated agreed to participate and others may have held different views. Thus, we cannot be certain of reaching saturation of themes. Nonetheless, the study findings are consistent with the literature. This research extends current knowledge regarding the potential role of GPs in cancer care, and highlights specific needs to be addressed, as well as potential solutions.

Recommendations for future research

The scope of actual and potential GP roles in cancer care and how to negotiate these roles need to be clarified. Patients would benefit from initiatives to strengthen mutual respect between GPs and specialists, mentoring for inexperienced doctors, clinical support and other improvements to the cancer support infrastructure. Future research could extend current knowledge by seeking oncologists' views on the role of GPs in cancer care. Novel strategies to address or adapt the system to workforce realities could be developed and tested. Such research will provide an evidence base for change.

Conclusions

Providing care to cancer patients across the trajectory is challenging for GPs, particularly in non-metropolitan settings where resources are less accessible and distance and familiarity with the system affect communication with cancer specialists. Non-metropolitan GPs learn from experience how to overcome the challenges of referral delays and inadequate communication. While GPs readily identify their concerns and potential solutions, the role can be daunting and unattractive within the realities of general practice. However, the findings of this study concur with previous research, which shows that GPs are motivated to provide long-term care for their cancer patients. This needs to be acknowledged and supported by strategies developed from the insights which they have shared.

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