

## Update on community oncology practice in Canada: A view from the trenches

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### ABSTRACT

**M**edical oncology is a subspecialty of internal medicine that deals with tumours originating in all organ systems.<sup>1</sup> Medical oncologists provide systemic therapy with either palliative or curative intent for large numbers of cancer patients. An emphasis on providing patient-centred care closer to home, coupled with population aging and distribution, is shifting demand for cancer care services from larger urban hospitals to regional centres in local communities. The majority of medical oncologists in Canada are concentrated in larger regional centers, often in close proximity to radiation oncology units.<sup>5</sup> Historically, it has proven difficult to recruit new oncology

graduates to the community oncology milieu, and this difficulty threatens to impede “close to home” access to cancer services in many parts of the country. However, differences between academic and community oncology practice are steadily being eroded through improved communications technology and distributed medical education.<sup>3</sup> This article profiles a number of dynamic nonacademic medical oncology practices across Canada to provide an up-to-date view of the realities of community oncology practice. Based on leading practices, it also presents a hypothetical optimal community oncology practice model.

**Keywords:** Community oncology, oncology careers, GPO.

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### INTRODUCTION

Oncology services in Canada are predominantly centered in larger metropolitan areas, often in conjunction with designated radiation oncology services. However, the current emphasis on ambulatory cancer care is increasingly directing patients toward community-based services. In provinces such as British Columbia and Ontario, more than 50% of all chemotherapy is now delivered outside of metropolitan tertiary cancer centers. In Alberta the figure is approximately 30%.<sup>5</sup>

In order to support a more diffuse delivery of cancer services, British Columbia has developed an extensive community oncology network with reliance on part-time or full-time general practitioners in oncology (GPOs). The number of full-time certified community medical oncologists is considerably smaller and recruitment has proven difficult. As a result, many patients are required to travel considerable distances for their initial medical oncology consultation, and for assessment of significant changes in their clinical condition.<sup>5</sup> While patient treatment preferences for community vs academic settings have not been extensively studied, one investigation in relation to gynecologic oncology revealed that 88% of patients in the community setting believed they had received adequate information, compared with only 63% in academic practices.<sup>4</sup>

The failure of community or smaller regional cancer programs to attract certified medical oncologists can be partly explained by issues such as restricted spousal employment opportunities, a desire to remain close to extended family in a major metropolitan area, and a lack of exposure to community practice during postgraduate oncology training. However, poor understanding of the real differences between academic and community oncology practice, and

the absence of standards for optimal community oncology practice, undoubtedly contribute as well.

**THE COMMUNITY ONCOLOGY SURVEY**

In order to more adequately describe the nature of community oncology practice in Canada, we identified six representative practices located in British Columbia, Alberta, Ontario, New Brunswick and Prince Edward Island. Saskatchewan has virtually no certified community oncologists outside of the major cancer treatment centers in Saskatoon and Regina. There is apparently only a single community oncologist outside of the major academic center in Manitoba. In Nova Scotia almost all medical oncologists are located within the greater Halifax area. We did not include a view of community oncology in Québec.

We surveyed the selected practices regarding workload, expressed as number of hours worked, number of new malignant consults, and number of chemotherapy patients seen each week. Information on physicians’ patterns of practice included number of half-days in the clinic, number of hours of teaching, and time spent on administration. Practices were also profiled regarding hospital inpatient coverage and the medical oncologists’ most responsible position (MRP) status. Finally, the quality of academic opportunities was examined through questions about medical school/university affiliation, participation in clinical trials, publications per year and participation in continuing medical education and conferences. Responses from the six practices are presented in **Table 1**.

**NATIONAL ONCOLOGY SURVEY**

Nationwide data is available for academic and community oncologists based on the last national physician survey

undertaken by the CMA in 2013.<sup>5</sup> It found that approximately 35% of medical oncologists worked in either community hospitals, community clinics, or non-academic health sciences centers. The vast majority of medical oncologists chose to work as part of larger groups or interprofessional teams, with only a minority (<10%) in solo practice. The average total hours worked per week was 55.<sup>5</sup> Of this, approximately 22 hours were spent in direct patient care without a teaching component while 7.4 hours per week were spent in patient care with a teaching component. Indirect patient care (presumably involving chart completion and other patient-related activities) took up approximately 9 hours a week. Added up, approximately two-thirds of oncologists’ time (67%) is spent in activities directly related to patient care while the other third was devoted to ancillary duties: research, administration and professional development each averaged approximately 4 to 5 hours per week.<sup>5</sup>

**COMPARISON OF COMMUNITY AND ACADEMIC ONCOLOGY - CAREER DIFFERENCES**

We then compared select practice dimensions in community and academic oncology (see **Table 2**). In general, academic oncologists are more likely to be involved in research and tend to focus their expertise on a limited number of tumour sites.<sup>6,7,8</sup> However, the increasing trend towards distributed medical education has significantly decreased differences between academic and community settings in time spent teaching.<sup>9</sup> Each of the six community practices reported significant teaching components, involving other medical staff, medical students and residents.

Five of the six practices actively participated in clinical trials, although these tended to focus on symptom control or on

**TABLE 1: Portrait of six Canadian community oncology practices**

	Burnaby, BC	Lethbridge, AB	Algoma, ON	Barrie, ON	Moncton, NB	Charlottetown, PEI	Group composite®
Number of medical oncologist in the practice	3*	2.5*	3.7*	9	5*	3	4.4
Number of hours worked/phys/wk†	60	48	80	50	60	50	58
New consults/phys/wk	12	6–8	8	6–8	12	8	9
Chemotherapy pts/phys/wk	40	40–50	50	40	40	50	45
Hematology component of oncologists’ practice	30%	30%	No	No	No	25%	3 of 6 practices
Number of half clinic days/phys/wk	10	7-8	9	7–8	10	9	9
Number of teaching hrs/phys/wk	1	2–3	6	2	5	2	3
Number of admin hrs/phys/wk	2	2–3	12	10–12	2	6	6
MRP inpatient coverage	Yes	No	No	Yes	Yes	Yes	4 of 6 practices
Clinical trial	Yes	No	Yes	Yes	Yes	Yes	All but one
Number of conferences/phys/yr	8	6–8	4	6–8	8	9	7
Publications/phys/yr	0	2–3	4	6–8	1–2	0	3
Medical school/university affiliation	Yes	Yes	Yes	Yes	Yes	Yes	All practices

\*Staffing includes either full or part-time hematologist practicing malignant hematology; † All number of hours and patients per week reflect the average per physician in the practice.  
 © Averages derived from the highest values and rounded off except for staffing numbers

**TABLE 2: A comparison of some selected dimensions-Canadian community versus academic oncology**

Dimension	Community oncology	Academic oncology
Mission	Patient care focused	Similar but may include more emphasis on research
Scope of clinical practice	Multiple tumor types with exception of rare or complex	Frequently only 1-2 tumor types/sites
Educational component	With distributed education approaches academic practice	Significant educational component
Clinical trials	Available but more likely broader based	Significant clinical trial opportunities
Collegial relationships	Referring doctors and specialists Provincial and national associations	Similar but may also include institutional and international collaborations
Reputation	Local and provincial	Similar but may also include national and international

the most common solid tumours (breast, lung, bowel and genitourinary). There are signs that additional research opportunities are creeping into the community milieu, partly due to the need for large trials to improve upon existing treatment paradigms. In the United States, the simultaneous growth of community clinical oncology programs and contract research organizations has brought Phase 2 and 3 clinical trials to a growing number of community oncology groups.<sup>10</sup>

Although each of the individual oncologists in the six practices had a significant provincial profile, and several enjoy national recognition, an academic position in a tertiary center would probably provide more opportunities for national and international recognition. However, in today's context, community oncology need not represent an academic dead-end, nor limit teaching or clinical trial participation opportunities. The community oncologists we surveyed all had academic affiliations. Several had already published over 50 academic manuscripts and continue to actively produce one or two new peer-reviewed publications per year.

The CMA survey showed that the vast majority of medical oncologists were paid by salary or a blended payment scheme, with only a minority paid completely by fee-for-service.<sup>5</sup> Most community oncologists actually choose to be self-employed contractors but models of remuneration vary. Only one of the six practices in our survey was entirely fee-for-service. Fee-for-service offers the greatest flexibility, but unless there are designated fees for chemotherapy (which has become increasingly complex and time-consuming), it is very difficult to generate an adequate income because of the time that must be spent counseling patients and their families.<sup>6,7,8</sup> Only a few Canadian provinces, including British Columbia, Ontario and Manitoba, have specialty fee items relating specifically to medical oncology and chemotherapy services.

## COMPARISON OF COMMUNITY AND ACADEMIC ONCOLOGY - PRACTICE DIFFERENCES

Some differences are evident between the actual work involved in community and academic oncology. We used the survey results to compare certain dimensions of practice.

### Workload

Although our six-practice survey did not break down the hourly workload distribution to the same extent, total hours

worked per physician (average 58) would appear equivalent. However, it is likely that community oncologists spend slightly more time on direct patient care than the Canadian average, since our survey group reported 9 half clinic days in direct patient care, while academic oncology settings report an average 5 to 6 half days in the clinic per week.

### Patient population

The patient population is frequently older in community settings, while academic oncologists are likely to treat a younger and more cosmopolitan population.<sup>6,8</sup> Smaller communities also entail a different relationship with patients, whom the oncologist is more likely to encounter in daily life outside the clinic. For most, this aspect of community practice is personally rewarding, but some may view it as an intrusion on private life.<sup>6</sup>

### Case mix

Where there are sufficient members in the practice, there has been a trend for community oncologists to specialize in one or two tumour sites. However, most community oncology practices treat patients with a variety of cancers,<sup>6,7,8</sup> with breast, lung, gastrointestinal and genitourinary malignancies typically comprising more than 80% of the case mixture. Some practices also include a significant component of malignant hematology.<sup>5</sup> The community oncologist must switch therapeutic gears frequently within a clinic, whereas clinic sessions in academic centres tend to be site specific. Academic oncologists usually specialize in one or two specific malignancies and may see a higher proportion of patients with unusual disease, patients referred specifically for clinical trial participation, or patients with complex presentations requiring multiple opinions or specialized surgical expertise.<sup>6,7,8</sup>

### Consultation

The generalist oncologist is challenged to keep up-to-date and quickly translate new research findings and guidelines into quality patient care. Provincial guidelines, tumour groups and site-specific protocols are very helpful in this regard, as is the ready electronic availability of expert advice on particular cases from "single site guru oncologists" at tertiary centres.<sup>3</sup> Each of the six practices surveyed held internal multidisciplinary tumour boards. As well, with the availability of video-

conferencing, participation in tertiary centre rounds or case discussions has become increasingly commonplace among community oncologists.

**The care team**

Community and academic practices seem to have equivalent access to GPs and nurse practitioners (NPs) in oncology.<sup>11,12</sup> Shared care can be more hands-on in the community oncology setting where medical oncologists are more likely to work closely with primary healthcare providers and other community healthcare professionals. This can, in fact, represent one of the most gratifying aspects of community oncology practice. In contrast, larger urban academic oncology practices treat many patients who do not have a primary care provider or have a provider who does not have hospital privileges.<sup>6,7,8</sup>

**Responsibilities outside clinic**

With the typically smaller physician group size, persistent challenges for the community oncologist remain inpatient care, on-call responsibilities and the treatment of patients who drop-in or require acute admission from the outpatient clinic setting. While the days of the internist-community oncologist appear to have passed, it remains difficult for a community oncologist with a busy outpatient clinic to also manage inpatients or coordinate acute hospital admissions.<sup>6,8</sup> Smaller groups that attempt to provide a hands-on after-hours on-call service may render the oncologist position less attractive. These issues are less problematic for academic oncologists who are far more likely to be involved in larger groups and have ancillary personnel such as residents, hospital-based GPO's, or designated hospitalist physicians available to see patients after hours.

Workload and the definition of responsibilities are important issues in community oncology practice. Collaborative practice appears essential in community settings with limited numbers of oncologists, and problems arise when primary care providers attempt to disassociate from the ongoing care of their cancer patients. The notion of a patient now “belonging” to a cancer centre is untenable in community

practice. Requiring community oncologists to perform tasks that non-oncologist physicians could perform represents a significant waste of their special skill sets and risks contributing to community oncologist overwork and burn-out.<sup>6,9</sup> We found that community oncology services that have both an adequately staffed palliative care service and a policy of obligatory palliative consults at the onset of metastatic disease greatly improve the chances that the community oncologist will not be overloaded.

These various considerations have led us to formulate characteristics of an optimal model for community oncology practice. This model would, if nothing else, enable individual oncologists contemplating a community oncology position to assess the practice reality against these optimal characteristics.

**AN OPTIMAL COMMUNITY ONCOLOGY PRACTICE MODEL**

The major part of an optimal community oncology practice would be outpatient-based and involve relatively healthy patients (Eastern Community Oncology Group [ECOG] performance status 0–2). It may be helpful to envision the practice as involving front-end, middle and back-end workloads (Figure 1). While a variety of competent healthcare professionals can deal with the front and back ends, only certified medical oncologists can prescribe new or modify existing treatment plans. Accordingly, the community practice would obtain the best value from the community oncologist’s services when:

On the front end:

- A GP in oncology attends to follow-up visits, chemotherapy suite problems and may also see routine adjuvant chemotherapy patients after the first visit
- A NP in oncology sees unanticipated sick patients, and attends to chemotherapy suite problems and routine chemotherapies after initial visits
- A nurse navigator is assigned to complex patients and assures that appropriate investigations are undertaken efficiently

**FIGURE 1: A hypothetical optimal community oncology practice model — the continuum of practice**



- A full-time clinical pharmacist can significantly improve both workload and workflow by prescribing and monitoring anti-emetic therapy as well as monitoring for other complications of chemotherapy amenable to pharmacological interventions. On the back end, there is an adequate palliative care service and an appropriate mechanism to care for inpatients.

In practices with fewer than three oncologists, hospitalists or GPs assume inpatient care for oncology patients.

Collaborative community mechanisms are in place and fewer than 10% of sick oncology patients are without a primary health care practitioner.

## DISCUSSION

In the US, a 2004 survey of 107 oncology fellowship program directors revealed that only 36% of graduates opted for a career in academic oncology — almost the exact inverse to the situation in Canada.<sup>6,7</sup> There are too many differences between the American and Canadian health systems to pinpoint any one factor responsible for this difference, but it is of interest that academic oncologists in the US typically start at 50% of the salary of community oncologists, whereas in Canada salaries are usually roughly equivalent.<sup>7</sup> As well, most community oncologists in the United States also hold dual certification in hematology and medical oncology, since employment flexibility increases with additional training in hematology.<sup>6,7,8</sup> Although such a training option would clearly be beneficial in Canada (especially in medium-sized and smaller communities where no designated hematology service is available), Canadian oncology programs are not generally structured to encourage comprehensive hematological specialization and certification.

On average, 25 to 30 trainees complete postgraduate training in medical oncology in Canada each year.<sup>1,5</sup> When surveyed in 2012, more than 75% of these trainees reported the stress associated with finding employment at the end of residency as either somewhat or very significant. Despite the greater availability of positions in the community setting than in academic centres, few of these new graduates consider starting their careers in community oncology.


Regarding these concerns, one Canadian physician who prefers to remain nameless, stated:

“There is no career path in community oncology in my province, no role models, and no overall encouragement in this direction. Our training programs assume academic practice from the beginning. In a province with a few major programs, these centers tend to end up as oncologic monopolies. There is currently no backup on-call system in community practice that would be supportive of such a choice, and no effective way to participate in the overall academic enterprise, i.e. little opportunity for community clinical trial involvement. Even if the billing codes for fee-for-service community oncology existed and were to be sufficiently financially attractive, in my opinion, that in itself is not enough.”

## CONCLUSION

With an aging population and increasing incidence of cancer, provincial governments have professed a significant commitment to a “treatment closer to home” paradigm.<sup>5</sup> Already

in some provinces in Canada, more than 50% of chemotherapy is now administered outside of major tertiary cancer centers. Employment opportunities for the 25 or more new graduates in medical oncology each year are likely to be predominantly in community centers/programs. Unfortunately many medical oncology residents currently have neither exposure to community oncology practice nor a clear understanding of how it compares to the academic centers in which they are training.

While it would appear that some structural changes are desirable in medical oncology training programs, the truth remains that marketplace realities determine practice demographics.<sup>6,7,8</sup> A relative scarcity of community oncologists may continue to drive GPs and NPs in oncology into front-line care, leaving a smaller number of community oncologists to function in a supervisory/consultative role around initiating or modifying treatment.<sup>12,13</sup> In order to maintain even this number of community oncologists, it is important that we strive to optimize community oncology practice models to make best use of specific skill sets and incorporate local and distant resources. Cancer care close to home must also be excellent care. 

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