Toward optimum use of oncology nurse practitioners in the community cancer care setting

An Alberta clinic’s approach

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ABSTRACT

With the emerging demographic shift caused by an aging population and declining birth rates, the incidence of cancer in most Western societies will increase dramatically over the next 10 to 15 years.¹ A shortage of qualified medical oncology physicians has been forecast and will be more problematic in the community oncology setting, where recruitment has proven more difficult.² Manpower shortages are therefore compounded in a context of increasing emphasis on ambulatory cancer care, with more patients being treated outside of metropolitan tertiary cancer centres. A variety of roles have been proposed for oncology nurse practitioners (ONPs) to support and provide care to oncology patients. These roles expand on traditional nursing roles and scopes of practice, and overlap with physician roles and care. ONP roles remain firmly embedded in nursing, with a primary focus on clinical work, alongside leadership, education and research functions.³,⁴ This paper describes how a busy community cancer program located at the Jack Ady Cancer Centre optimized use of valuable ONP resources to meet growing patient needs.

Keywords: community cancer care, oncology nurse practitioners, healthcare resources, interprofessional teams

INTRODUCTION

The Jack Ady Cancer Centre (JACC), which operates out of the Chinook Regional Hospital in Lethbridge, Alberta, is one of the 4 CancerControl Alberta regional cancer centres. The clinic currently has 2 full-time radiation oncologists, 2 full-time medical oncologists and 1 oncology nurse practitioner (ONP). JACC provides service to a population of close to 100,000 in Lethbridge, along with another 50–60,000 Albertans in surrounding communities. Medical and radiation oncologists care for almost all solid tumour types, with the exception of head and neck cancer, melanoma and sarcomas. A hematologist also works part-time in the clinic, providing care for patients with hematologic malignancies. The cancer care delivery model at JACC is team-based and includes rehabilitation services, dietary therapy and psychosocial support, as well as the services of nurse navigators and advanced clinical pharmacists.²

In early 2016, the clinic’s 2 part-time general practitioners in oncology (GPO) relocated to other areas of clinical practice, and the second full-time medical oncologist joined the team. At the same time, the ONP expressed a degree of frustration with the lack of clarity around roles and responsibilities, and requested that day-to-day patient care responsibilities be better defined. Table 1 documents the baseline professional practice of the ONP at JACC. These multiple coalescing factors prompted a review of the ONP practice model, with the ultimate goal of improving practice clarity and optimizing service delivery. In this paper, we present details of the initiative that was undertaken and describe how the knowledge we gained was applied at the Centre.
The quality assessment initiative sought ways to better meet patient needs at the centre. A main focus was to meet the needs of patients, optimize the ONP role, and develop communication with all team members of a clear definition of the ONP role within the Centre, while also increasing ONP job satisfaction and professional sense of purpose. The underlying principles of the initiative were that any proposed care model must be team-based and patient-centred. In addition, it was understood that existing providers and resources had to be optimally utilized before any consideration could be given to additional staffing.

**METHODS**

Between April and August 2016, a series of meetings were coordinated with the ambulatory manager, ONP and primary registered nurses (RNs), and informal consultations were held with all oncology staff members. Efforts were made to clearly document existing patient needs, clinic workload and processes, an exercise that required a 6-month retrospective workload analysis encompassing the period from November 2015 to May 2016. The review led us to define ONP scope of practice as focused on patients with solid tumours; hematology patients and clinics would be regarded as out of scope. Given that breast and colorectal cancers comprised approximately 50% of the total clinical workload, the initial analysis focused principally on these patient populations.

**RESULTS**

Analysis of the retrospective 6-month data revealed that, on average, the ONP was seeing half as many patients per clinic as each of the medical oncologists. For the patient followup clinics, the ONP’s utilization was about 30% to 50% of capacity. A more detailed breakdown of the distribution of tumour types seen by the ONP revealed the following case makeup: 40% breast cancer, 25% gynecologic cancers, 23% colorectal cancer, 8% genitourinary cancer, and 4% hematologic cancers.

Further analysis of these data revealed that, based on current Alberta Health Services care models and typical treatment protocols, care for approximately two-thirds of patients receiving adjuvant therapy for breast cancer or adjuvant and metastatic therapy for colorectal malignancies could have been provided and/or managed in part by the ONP. Tabulation of the total number of treatment visits for these 2 patient groups showed that, in theory, the ONP could have managed the care for over 330 patients. This was significantly more than the number of patients the ONP had actually seen during the study time period.

**ACTING ON FINDINGS OF THE REVIEW**

The reorganization of practice suggested by the review would involve redistributing patients between the 2 medical oncologists and the ONP. Algorithms developed to manage these scenarios are presented in Figures 1 and 2 (on pages 24 and 25). In order to facilitate the transition, clear expectations for capacity in both the chemotherapy review clinic and followup clinic had to be developed, with appropriate guidelines for managing patient visit cancellations. The transition also required new patient communication strategies and tools that clearly outlined which clinicians would follow which patients at which times. These communication tools were essential to ensure a common understanding of roles and responsibilities among all clinic staff. Process optimization required the creation of uniform templates for chemotherapy review and followup, as well as a standardization of the start and finish times of the different clinics.

A weekly formal meeting time was set for discussion of individual cases between the ONP and medical oncologists. It was decided that the ONP would continue with the gynecologic oncology component of her practice and would also still be expected, when not in a treatment or followup clinic, to assist with care for unscheduled patient visits and problems that arose in the chemotherapy suite. Some of the anticipated changes to the ONP’s functions are outlined in Table 2.

**ANTICIPATED IMPACT AND BENEFIT**

Some of the potential benefits and impacts of the proposed changes are summarized in Table 3. An obvious major benefit was better ability to match patient needs/volume with appropriate availability of providers, as well as greatly increased clarity of understanding among all parties about the roles and responsibilities of clinic staff, including ONP, pharmacists, medical oncologists, primary nurses, and clerical staff. Second, better consistency and definition of practice and processes involved in the ONP role is expected to increase job satisfaction. The increased clinical interaction between the medical oncologists and ONP should also help to make the role more fulfilling, promoting communication with fewer
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MO/RN dyad Balanced and optimized caseload; effective and consistent transfer to ONP for management

RN/ONP dyad Better clarity of ONP’s practice; primary nursing supports this practice, with clear tasking to understand role differences and where overlap may occur

Clerks Clear understanding of booking practices (i.e. MO vs NP), clinic volumes and other scheduling processes

ONP Clarity of patient population; more fulfilling role/scope of practice, scheduled interactions and defined care pathways may allow fewer unanticipated interruptions

MO: medical oncologist; ONP: oncology nurse practitioner; RN: registered nurse.

TABLE 3. Clinic roles and responsibilities

Who Anticipated benefits

Patients Know who will care for them and why; staff affirm with patients that we care for them as a team

MO/RN dyad Balanced and optimized caseload; effective and consistent transfer to ONP for management

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interruptions. The changes involved a 25% to 30% increase in patient caseload over current ONP capacity, therefore the addition of a 0.5 ONP position was proposed.

DISCUSSION

Although this investigation was prompted in large part by the simultaneous departure of 2 part-time GPOs and the arrival of a new medical oncologist, 2 additional drivers played important roles in prompting efforts to codify and optimally structure ONP practice at JACC.

The first is related to the challenge of providing adequate care for our growing and more complex clinical load. The Canadian strategy for cancer control predicts the incidence of cancer will increase 70% over the next 15 years.1 In recent years, there has been a major shift in the delivery of cancer care, with an emphasis on patient-centred care provided closer to home. This means that a significant part of treatments previously delivered in tertiary centres is being administered in smaller or community-based cancer clinics.1,12 In some provincial jurisdictions, more than 50% of all cancer therapies are now delivered in the community (in Alberta the figure is 30%). Unfortunately, most community cancer programs do not have access to the variety of staffing resources available in larger centres. Historically, it has proven difficult to recruit new oncology graduates into the community oncology milieu, and this difficulty threatens to impede “closer to home” access to cancer services in many parts of the country.2

In this regard, workload and the delineation of responsibilities remain important issues in community oncology practice. Collaborative practice appears even more essential in community settings, where there is a limited number of generalist oncologists, and problems can arise when primary care physicians are not always willing, or do not feel well-enough prepared, to provide ongoing care of their cancer patients. Similarly, requiring community oncologists to see all patients is not realistic, and nor is it an optimal use of the specialized skill set in medical oncology. Providing advice on complex patients and seeing new patients, while collaborating with team members to support ongoing care is likely how oncology care will be provided in the future.3

Other health professionals, notably GPOs and ONPs, are well-placed to take up many of the responsibilities currently assumed by community oncologists. However frequently these professionals suffer from a lack of clear role definition, insufficient recognition as integral members of the multidisciplinary cancer care team, and budgetary restrictions. Studies have shown that GPOs help ease the impact of shortages in medical oncology manpower.4 However, the attractiveness of the GPO role suffers due to a perceived lack of appreciation for their contribution, coupled with restricted practice opportunities in some clinics, and remuneration that falls short of that available in private practice.

The nurse practitioner (NP) role was originally designed to fill a gap in primary health care; however, the number of NPs in specialty areas, including oncology, has increased significantly in recent years.3,4,6,7 ONPs have authority to order diagnostic tests, establish diagnosis, prescribe medication and treatments, request consults and perform certain procedures. NPs can practice autonomously and maximize the use of advanced nursing knowledge.3,7

Research has shown that NPs can safely manage patients independently and collaboratively with other healthcare professionals.8,9 Studies have also demonstrated that the addition of NPs in specialties such as oncology has helped communities with limited access to specialized care.13,14 Specifically in the field of oncology, NP involvement has been documented to reduce the need for acute care admission and readmission, since they frequently provide a continuity link between inpatient and outpatient services.3,11,12 Building on this evidence, and in keeping with prior literature, we believe that the redefinition and optimization of NP resources devoted to our highest-volume tumour sites will significantly contribute to improved patient care and overall clinic efficiency.

The second major driver for change was the perceived lack of clarity and job satisfaction expressed by the existing ONP. Studies of NPs new to the field of oncology reveal that it typically takes time (an estimated 3 to 4 years) to achieve clinical self-confidence and an expert level of practice.3,4,6,7 The same investigations showed that in the early stages of role implementation, ONPs tended to focus on developing their clinical role, both as a strategy for establishing credibility among stakeholders, and as a means of gaining system entry. In this regard, shared care and gaining clinical confidence can be accomplished in a more hands-on fashion in the community oncology setting, where medical oncologists and other team members are more likely to work closely together. (This, in fact, represents one of the most gratifying aspects of community oncology practice.)

A 2006 survey of the majority of ONPs in the province of Ontario showed that there was a large variation in individual roles and activities.15 At that time, almost all care was
team-based and collaborative, with only 30% of individual ONPs spending time in their own clinics. Approximately 60% of their time was spent in direct clinical care, with an additional 10% in education and 10% in leadership activities, while slightly over 5% was invested in each of research and scholarly professional development. When the 60% percent clinical time was explored in more detail, it was found that more than 50% of this time was spent on symptom management, including pain control, while another major component involved patient and family education (25%).

In terms of distribution of cancer types seen, breast cancer and hematologic malignancies constituted more than 50% of visits. In keeping with this evidence, we believe that the redefinition and optimization of ONP resources devoted to the highest-volume tumour sites will significantly contribute to improved patient care and overall clinic efficiency.

The same study looked at ONP satisfaction. Approximately 70% were satisfied with their current role, but among the dissatisfied 30%, many were considering or actively seeking new employment. Major areas of dissatisfaction included insufficient administrative support and resources, lack of personal growth or career development opportunities, and perceived negative personal health effects. A principal conclusion of this study was that too many ONP roles were clustered in the initial treatment or palliative stages of cancer, and that there was tremendous opportunity to expand the use of ONPs across the cancer care continuum. This might include more hands-on clinical care and supervision, especially among high-incidence and high-needs populations such as patients with colorectal, lung or prostate cancer.

Building on this background information from Ontario, we believe that the proposed restructuring of care processes and clarity around the ONP role stands to increase the likelihood of job satisfaction. The ONP role we propose is distinct from historical practice at the Centre in that it includes both greater participation in direct patient care, and far more involvement in ONP-led clinics, which was an important recommendation of the Ontario report.

CONCLUSION
Faced with both an aging population and increasing incidence of cancer, provincial governments have stated a significant commitment to the “treatment closer to home” paradigm. Already in some provinces in Canada, more than 50% of chemotherapy is administered outside of major tertiary cancer centres. However, the relative scarcity of oncologists...
may result in community oncology more commonly being delivered by multidisciplinary teams, with community oncologists focusing on playing a consultative role for other team members, as well as initiating or modifying treatment and providing care to oncology patients with more complex needs.

ONPs use a collaborative framework to meet the needs of patients and work with all members of the cancer care team regardless of practice setting. They have significant skills to contribute as planners, providers, and evaluators of care, and have been shown to play a significant role in improving patient safety, quality of care and outcomes. Our study outlines the steps taken by one busy community oncology practice to optimize this valuable practice resource.

References