

Cancer care services

OUTCOMES, ACCESS AND PLANNING

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TRIAL SUMMARY: Improving quality through a community of practice

Fingrut W, Beck L, and Lo D. Building a medical oncology community of practice (Abstract 7) and Medical oncology communities of practice: insights from a qualitative assessment of feedback (Abstract 10), Canadian Association of Medical Oncology Annual Meeting, April 27, 2017, Toronto.

Communities of practice (COP) are effective models for achieving quality outcomes. The authors presented two studies: one assessed the impact of a medical oncology COP involving an urban community hospital and its networks; the second examined ways the COP might be improved. The main activities of the COP were 6 in-person multidisciplinary meetings, led by subspecialist physicians and focused on screening, diagnosis and management of

common solid tumours. Meetings were attended by a mean of 57.4 healthcare providers affiliated with the community hospital, including family physicians (41.2%), specialist physicians (24.8%), and allied healthcare providers (34.0%). Over 80% completed the survey, and 85% attended more than one meeting. Goals were to decrease barriers to access, foster collaboration and improve knowledge of guidelines in cancer care. A survey was completed following each session to assess whether COP goals were achieved.

Results: Mean results from surveys completed after each meeting found that a majority of participants agreed or strongly agreed that the COP reduced barriers (76±7.9%); improved access to cancer care services (82.4±8.1%) and to experts (91.7±4.2%); fostered teamwork (84.5±6.8%) and a culture of collaboration (94.8±4.2%); improved knowledge of cancer care services (93.3±4.8%), standards of practice (92.3±3.1%), and quality indicators (77.5±6.3%); and improved cancer-related practice (88.8±4.6%) and satisfaction in caring for cancer patients (82.9±6.8%). The study shows that medical oncology COPs are feasible, and are a valuable means of reducing barriers to access, fostering collaboration and improving knowledge of guidelines in cancer care.

The second, qualitative study describes participant recommendations for improving the COP. These included: expanding multidisciplinary panels to include pathology, radiology, allied health professionals and other disciplines in order to improve collaboration; developing clinical resources, such as a rapid diagnostic clinic and physician specialist directory; paper and online education resources presented at the meetings; and “quick tips” handouts. Participants particularly appreciated the improved networking with subject matter experts and easy access to cancer care information that the COP events enabled, and felt these promoted a culture of collaboration.

IN BRIEF

Already known

- Communities of practice (COP) help achieve quality outcomes.

What this study showed

- COPs in medical oncology are feasible and serve to foster collaboration, improve knowledge of guidelines and decrease barriers to care.

Next steps

- Pursue medical oncology COP and adjust according to participant feedback.

TRIAL SUMMARY: Funding medications

Smith MK, Khan OF, Yip S, Tang PA. Comparison between Canadian and British oncology drug review recommendations and their impact on patient access. Canadian Association of Medical Oncology Annual Meeting, Abstract 8, April 27, 2017, Toronto.

In Canada, the pan-Canadian Oncology Drug Review (pCODR) makes recommendations about the funding of oncology medications. In the UK, this function is assumed by the National Institute for Health and Care Excellence (NICE). This study investigates variations between these organizations' recommendations. The authors reviewed pCODR Drug Reviews and NICE Technology Appraisal Guidance oncology drug recommendations between 2008 and 2016. Recom-

mendations were evaluated according to an algorithm to identify differences with a clinically relevant impact on access, including the length of time from drug submission to final recommendation, and to regional funding approval.

Results: Of the 31 medication indications reviewed by both pCODR and NICE over the 8 years, 12 were recommended for funding by only one agency, and 8 more were approved with clinically relevant differences between agencies in the wording of the recommendation, with each agency making a more restrictive recommendation 4 times. Average time from submission to recommendation was faster for pCODR than NICE (213.8 days vs 407.9 days; $p < 0.001$), but the average time between submission and regional funding decision (Table 1) was similar (410.1 days in Canada

vs 407.9 days in the UK; $p=0.71$). The authors conclude that, despite clinically relevant differences in recommendations between NICE and pCODR, neither agency was consistently more restrictive. Barriers to access could be mitigated through harmonization and acceleration of drug review processes.

TABLE 1. Length of time from drug submission at agency to funding decision

Agency	Mean length (days)
NICE (n=31)	407.9
pCODR to provincial funding decision	
AB (n=22)	417.6
BC (n=17)	410.1
SK (n=21)	401.8
MN (n=20)	448.0
ON (n=20)	373.5

NICE: National Institute for Health and Care Excellence; pCODR: pan-Canadian Oncology Drug Review; AB: Alberta; BC: British Columbia; SK: Saskatchewan; MN: Manitoba; ON: Ontario.

IN BRIEF

Already known

- Jurisdictional agencies in Canada and the UK impact access to oncology medications through funding recommendations.

What this study showed

- There are differences in the recommendations of Canadian (pCODR) and UK (NICE) agencies.
- Neither agency is consistently more restrictive in its recommendations.

Next steps

- Identify measures to reduce barriers to access by harmonizing review processes and accelerating both the initial drug review and regional funding for reviewed medications.

TRIAL SUMMARY: Post-treatment surveillance

Samawi HH, Yin Y, Lim HJ, Renouf DJ, Cheung WY. Primary care vs oncology-driven surveillance following adjuvant chemotherapy in resected pancreatic cancer. Canadian Association of Medical Oncology Annual Meeting, Abstract 9, April 27, 2017, Toronto.

There are wide variations between centres in the followup of patients with pancreatic cancer after treatment with curative intent. This study describes patterns of surveillance of 147 patients who received at least 1 cycle of adjuvant chemotherapy with gemcitabine or 5-fluorouracil monotherapy at a BC Cancer Agency centre between 2004 and 2015. The authors compare outcomes in patients discharged to primary care physicians (PCP) and patients followed by oncologists who received regular clinical assessments, laboratory testing and/or diagnostic imaging. Median age at diagnosis was 64 (range 38–85) years, 48% were men, and 68% of patients had a documented recurrence. More patients were followed by oncologists than PCPs (66% vs 44%). Among the measured prognostic factors, only patients with advanced tumour stage (T3/4) were more likely to be followed by cancer specialists (78% vs 62%, $p=0.03$), while age, gender, performance status, node status, pathologic grade and surgical margins were balanced between the 2 groups.

Results: Patients followed by oncologists were more likely to receive chemotherapy on recurrence than those followed by PCPs (58% vs 34% $p=0.03$). Median overall survival (OS) was 2.82 years (95% CI: 2.17, 3.32) in the oncology group followed by oncologists, and 3.35 years (95% CI: 2.85, 5.06) in the group followed by PCPs, while median relapse free survival (RFS) was 1.4 (95% CI: 1.37, 1.77) and 2.4 (95% CI: 2.07, 4.59) years, respectively. On multivariate analysis, there was no significant difference in OS between oncology

and PCP-driven surveillance (HR 1.23; 95% CI: 0.74, 2.04, $p=0.4$); however, RFS favoured the PCP group (HR 1.62; 95% CI: 1.01, 2.56, $p=0.04$, for oncology). The authors conclude that surveillance tests and imaging performed by oncologists detected recurrences earlier when compared to followup by PCPs, but this did not result in OS differences. PCPs may have a larger role in the followup care of selected patients with resected pancreatic cancer.

IN BRIEF

Already known

- There are variations in the followup of patients treated with curative intent for pancreatic cancer.

What this study showed

- Patients with advanced tumour stage were more likely to be followed by an oncologist than a primary care provider (PCP).
- Patients followed by an oncologist were more likely to have recurrences detected earlier and to receive chemotherapy upon recurrence.
- Multivariate analysis showed no significant difference in overall survival between PCP and oncologist followup.

Next steps

- Improve the selection of patients who may benefit from oncologist followup.
- Expand the role of PCP in followup care of patients treated for pancreatic cancer.

TRIAL SUMMARY: Planning for the future

Yip S, Loewen SK, Hao D, Easaw J. Redefining the future workload of the medical oncologist: a novel workforce planning model. Canadian Association of Medical Oncology Annual Meeting, Abstract 36, April 27, 2017, Toronto.

In this study, the authors used Canadian Institute for Health Information and Canadian Medical Association (2005–2015), as well as Canadian Post MD Education Registry (2005–2014) data to predict future workforce needs in medical oncology (MO). Demand for cancer care was estimated using Canadian Cancer Statistics (2005–2016) incidence and prevalence data, and Alberta Cancer Registry (2005–2014) data on new patients per MO specialist and systemic therapy utilization rates. A forward calculation model was developed to forecast MO supply and demand dynamics. The model was validated by the Royal College MO Committee.

Results: The MO workforce across Canada is expected to grow by 53.4% between 2016 and 2026, from 541 to 830. New MO hires will increase from 39 to 56 per year, while departures will rise from 15 to 24 per year. Although cancer incidence rates are expected to grow by 32.2%, the projected increase in MO supply will mean fewer consults per MO specialist, from 180 new patients in 2016 to 138 in 2026. The initiation of patients on systemic therapy is projected to remain relatively stable at 109.2 new starts per year per MO practitioner. This validated model predicts a growing MO workforce, as a result of increasing training/hiring rates and comparatively fewer departures. Although this model does not account for regional variation across Canada, full-time equivalent employment differences, and external funding/economic forces, it does identify and characterize a paradigm shift, where MO may face increasing demand not only to meet the need for new consults, but also to start patients on an ever-increasing number of systemic therapies.

TABLE 1: Future medical oncology (MO) supply and demand rates

Year	MO workforce	New MO hires	MO departures & retirements	Annual new cancer incidence in Canada	New patient consults (per MO specialist)	Systemic treatment starts (per MO specialist)	New patient consults (per MO specialist per month)	Systemic treatment starts (per MO specialist per month)
2016	541	39	15	202,469.2	180	109.2	15	9.1
2017	566	41	16	208,206.4	174	110.4	14.5	9.2
2018	593	43	16	214,106.2	169.2	110.4	14.1	9.2
2019	619	44	18	220,173.2	165.6	110.4	13.8	9.2
2020	647	46	18	226,412.2	160.8	110.4	13.4	9.2
2021	676	48	19	232,827.9	156	110.4	13	9.2
2022	705	49	20	239,425.4	152.4	110.4	12.7	9.2
2023	735	51	21	246,209.9	148.8	110.4	12.4	9.2
2024	767	53	21	253,186.6	144	109.2	12	9.1
2025	798	54	23	260,361.0	141.6	109.2	11.8	9.1
2026	830	56	24	267,738.7	138	109.2	11.5	9.1

COMMENTARY: Cancer incidence is projected to increase sharply over the next 20 years.¹⁻³ Today's oncologists face growing expectations in terms of patient access, care delivery and cost containment. Improving the accessibility and quality of cancer care has become a priority on the agendas of leading global cancer organizations, government bodies and other stakeholders.^{4,5} At the 2017 CAMO Annual Meeting, 5 abstracts addressed issues around quality and access in Canadian cancer care.

Yip et al projected that the Canadian medical oncology workforce will expand over the next 10 years, leading to a decrease in the number of new consultations, but the number of new starts on systemic therapies per oncologist will remain the same. Regional variations in the workforce are not examined in this study. Patterns of delayed retirement among existing oncologists and new trainee employment

are also unknown. Oncologists today are treating an aging population, which not only demands complex high-risk decisions for individualized therapy, but also ongoing comprehensive evaluation and management of comorbidities, and cognitive and psychosocial dimensions of health that may be affected by cancer treatments.³ The impact of further variables, such as patients seeking multiple opinions, and participation in complex clinical trials, is difficult to measure. The evolution of medical oncology practice is also influenced by changes in the roles of other specialties, such as primary care, internal medicine and palliative care, as well as oncology physician assistants. Results of this study, along with further data on these unknown variables, are needed to enable comprehensive workforce planning and ensure that the growing demand for cancer care will be met.

As many oncology centres transition cancer survivors to primary care, it is important to understand how to best integrate PCPs into shared responsibility for survivorship care. Samawi et al's study reveals that, given a lack of consensus on the optimal surveillance strategy in pancreatic cancer, practice patterns vary. Oncologist followup resulted in greater detection of recurrence in patients following resection, and more administration of systemic therapy upon relapse, but no gain in overall survival. Advanced tumour stage was more likely to be followed by oncologists. Patient satisfaction, quality of life and cost-effectiveness endpoints were not explored. The goals of quality survivorship care include early detection of cancer recurrence for timely salvage therapy, management of ongoing symptoms and adverse effects from treatment, attention to psychosocial challenges following therapy, and promotion of healthy lifestyles.^{6,7} This study adds to the growing body of evidence that PCP care can be a safe, efficient and effective alternative to specialist-driven followup in properly selected patients.^{8,9} Their role in survivorship care should be expanded and better defined.

The community of practice (COP) model supports 5 key components of a social learning structure: individual competence, systems thinking, a cohesive vision, team learning, and integrating different perspectives.¹³ It has shown promise in facilitating quality improvement in surgical oncology.^{14,15} The studies by Fingrut and Beck et al demonstrated that a COP model in medical oncology can also reduce barriers to access, foster collaboration, improve medical expertise and standards of practice, increase patient satisfaction, and improve quality indicators. Although there is a risk of selection and response bias in any survey methodology, it is clear that the COP model can play an important role in addressing key challenges in cancer care in the community, and should be increasingly utilized. Several challenges need to be addressed in developing a COP, notably finding and engaging local champions with common priorities and interests. Using continuous comparative feedback on performance as part of the participants' professional development is key to the model's sustainability and success in achieving improvements.

The pCODR initiative was introduced in 2010 to support all provinces in Canada in making drug reimbursement recommendations. Although provinces retain the final authority, pCODR attempts to bring consistency to data interpretation and the decision-making process.¹⁶ Comparing pCODR funding recommendations to those made by NICE in the UK, Smith et al found some differences, however neither jurisdiction was more stringent. Timing from submission to funding decision was also similar. This suggests that evidence interpretation and value of care can be aligned. It may be possible for different jurisdictions to work more closely together to accelerate the drug review process. Ideally, further analysis to include a greater number of recommendations would be undertaken to confirm these results. Post-approval evaluations of access to cancer drugs is helpful in identifying other potential barriers.

IN BRIEF

Already known

- Canada-wide data are available on the medical oncology workforce and cancer care needs.

What this study showed

- Cancer incidence in Canada will grow by over 30%, and the medical oncology workforce will grow by 53.4% in the next 10 years.
- The number of new patient consults per medical oncologist will decrease from 180 to 138 per year by 2026, however the number of new systemic therapy starts per medical oncologist will remain the same.

Next steps

- Employ the modeling projections in workforce planning and study regional variations.

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