

# Oncology

## Sixteen Things Physicians and Patients Should Question

by  
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### **1 Don't order tests to detect recurrent cancer in asymptomatic patients if there is not a realistic expectation that early detection of recurrence can improve survival or quality of life.**

In some specific situations, the early detection of cancer recurrence (local and/or distant) may increase the likelihood of successful subsequent curative treatment. However, in many circumstances, earlier knowledge of recurrence does not improve outcome. As such, it is important to balance the information that can come from advanced testing with what is best for the individual patient. Specifically, the need for patient reassurance should be balanced against the anxiety and uncertainty provoked by extensive follow-up testing when there is not a realistic expectation that the early identification of recurrence may improve survival or quality of life.

### **2 Don't perform routine cancer screening, or surveillance for a new primary cancer, in the majority of patients with metastatic disease.**

Screening for cancer can be lifesaving in otherwise healthy at-risk patients. While screening tests lead to a mortality benefit which emerges years after the test is performed, they expose patients to immediate potential harms. In general, patients with metastatic cancer have competing mortality risks that would outweigh the mortality benefits of screening as demonstrated in healthy patients. In fact, patients with metastatic disease may be more likely to experience harm since patients with limited life expectancy are more likely to be frail and more susceptible to complications of testing and treatments. Therefore, the balance of potential benefits and harms does not favor recommending screening for a new asymptomatic primary malignancy in most patients with metastatic disease. Screening may be considered in a very small subgroup of patients where metastatic disease is relatively indolent, or its treatment is expected to result in prolonged survival.

### **3 Avoid chemotherapy and instead focus on symptom relief and palliative care in patients with advanced cancer unlikely to benefit from chemotherapy (e.g., performance status 3 or 4).**

Studies show that, in general, cancer directed treatments are likely to be ineffective for patients with solid organ tumours who are markedly debilitated by their cancer (i.e., performance status 3 or 4). Exceptions may include patients with functional limitations due to other conditions resulting in a low performance status, or selected patients with specific disease types (e.g., germ cell cancer) or characteristics (e.g., mutations) that suggest a high likelihood of response to therapy. It has also been shown that appropriate symptom control and palliative care can significantly improve quality of life.

### **4 Don't perform routine colonoscopic surveillance every year in patients following their colon cancer surgery; instead, frequency should be based on the findings of the prior colonoscopy and corresponding guidelines.**

Studies have shown clearly that, in the absence of heredity syndromes, the progression from polyp to cancer (adenoma carcinoma sequence) occurs over many years. Thus, the timing of a follow-up surveillance colonoscopy should be determined based on the results of a previous high-quality colonoscopy. Typical colonoscopic surveillance following colon cancer surgery consists of a colonoscopy at one year; thereafter it should not typically exceed every 3 years following detection of an advanced polyp, or every 5 years following a normal exam or one showing small polyps. In Canada, there is both evidence of overuse of surveillance colonoscopy following colon cancer resection and, in areas, a limited availability of endoscopy resources.

**5 Don't delay or avoid palliative care for a patient with metastatic cancer because they are pursuing disease-directed treatment.**

Numerous studies—including randomized trials—show that palliative care improves pain and symptom control, improves family satisfaction with care, and reduces costs. Palliative care does not accelerate death, and may prolong life in selected populations. The benefits of disease-directed treatment (e.g., chemotherapy or radiation) can be enhanced by early consideration of palliative care.

**6 Don't recommend more than a single fraction of palliative radiation for an uncomplicated painful bone metastasis.**

Randomized trials have established that single-fraction radiation to a previously unirradiated, uncomplicated peripheral bone or vertebral metastasis provides comparable pain relief and morbidity compared to multiple-fraction regimens, while optimizing patient and caregiver convenience. Although it results in a higher incidence of retreatment at a later date (20% vs. 8 % for multi-fraction regimens), the decreased patient burden usually outweighs any considerations of long-term effectiveness for those with a limited life expectancy.

**7 Don't initiate management in patients with low-risk prostate cancer (T1/T2, PSA < 10 ng/ml, and Gleason score < 7) without first discussing active surveillance.**

Patients with localized prostate cancer have a number of reasonable management options. These include surgery, radiation, as well as conservative monitoring without therapy in appropriate patients. Shared decision-making between the patient and the physician can lead to better alignment of patient goals with treatment and more efficient care delivery. The use of patient-directed written decision aids concerning prostate cancer can give patients confidence about their choices, and improve compliance with therapy. Discussion regarding active surveillance should include both the elements and timing of such surveillance, and emphasize the need for compliance.

**8 Don't initiate whole breast radiotherapy in 25 fractions as a part of breast conservation therapy in women age ≥50 with early stage invasive breast cancer without considering shorter treatment schedules.**

Whole breast radiotherapy is beneficial for most women with invasive breast cancer treated with breast conservation therapy. Many studies have utilized “conventionally fractionated” schedules that deliver therapy over 5 to 6 weeks, often followed by 1 to 2 weeks of boost therapy. However, more recent evidence (including a major study from Canada) has demonstrated equivalent tumour control and cosmetic outcome in specific patient populations with shorter courses of therapy (approximately 3 to 4 weeks). Patients and their physicians should review these options to determine the most appropriate course of therapy.

**9 Don't deliver care (e.g., follow-up) in a high-cost setting (e.g., inpatient, cancer center) that could be delivered just as effectively in a lower-cost setting (e.g., primary care).**

Several studies (including randomized clinical trials) have demonstrated that surveillance following definitive cancer therapy can be performed equally well, and in a more patient-centered fashion, within a primary care setting. With the substantial increase in cancer survivors, the traditional practice of providing routine follow-up care through specialist cancer centres is placing rising demands and competing with other care delivery functions of such centres. Primary care providers are both willing to provide follow-up cancer care and have repeatedly assumed such responsibility. Despite this, the transition to primary care in Canada has been both variable and incomplete.

**10 Don't routinely use extensive locoregional therapy in most cancer situations where there is metastatic disease and minimal symptoms attributable to the primary tumour (e.g., colorectal cancer).**

In the past, extensive local regional therapies (e.g., surgery) were often provided in patients with metastatic disease, regardless of the symptomatology of the primary tumour. However, recent evidence has suggested that in many cases these therapies do not improve outcome and, at times, delay the more important treatment of metastatic disease (e.g., chemotherapy). In general, patients with metastatic disease from solid organ malignancies and a relatively asymptomatic primary tumour should be considered for systemic therapy as a priority; the delay in systemic therapy and potential additional morbidity arising from extensive locoregional therapies should be avoided in these patients.

**11 Do not prescribe whole brain radiation over stereotactic radiosurgery (SRS) for patient with limited brain metastases ( $\leq 4$  lesions).**

Intracranial metastases are a source of neurologic morbidity and mortality. For several decades, whole brain radiation therapy (WBRT) remained the standard of care, but the development of advanced radiation techniques such as stereotactic radiosurgery (SRS) allows treatment of limited brain metastases in less time and while largely sparing surrounding brain. Several randomized trials have compared SRS alone to SRS plus WBRT or local therapy alone (SRS or surgery) to local therapy plus WBRT. These trials allowed up to 4 lesions and including patients with good performance status (Karnofsky performance status  $\geq 70$  or Eastern Cooperative Oncology Group 0 to 2). These trials showed that adding WBRT to SRS alone did not improve survival and that there was worse neurocognitive deterioration and quality of life in patients treated with WBRT plus SRS. Several national international guidelines now recommend the use of SRS for patients with good performance status and up to 4 brain metastases.

**12 Don't prescribe protracted courses of radiotherapy when there is evidence to support equivalence of a hypofractionated or shorter fraction regimen.**

Hypofractionated or shortened radiation regimens have been documented to attain similar efficacy and safety as conventional and longer radiation courses for multiple tumor sites. By reducing the number of treatments, patient travel and machine time are reduced, thereby decreasing carbon emissions and energy demands of radiotherapy.

**13 Don't book multi-day patient visits for radiation treatments when these can be coordinated into a single trip.**

A major source of the carbon footprint in the delivery of radiotherapy stems from the travels of the patients and staff to the radiation centres. As Canadian radiation facilities are centralized within larger towns and cities, public transits are commonly available. Active transportation is associated with many co-health benefits. Health care centres should ensure facilities exist to support active commuting (ex. showers, secure bike storage). Public transport when available should be incentivized, and in communities lacking this resource, health centres should advocate for this service.

**14 Don't do unnecessary imaging for cancer staging, treatment planning, and image verification in the context of clinical yield. Imaging is carbon intensive.**

Medical imaging is estimated to account for 1% of global GHG emissions. For example, a single MRI abdomen is estimated to generate emissions equivalent to driving a motor vehicle almost 300km. The annual energy requirements and carbon emissions associated with commonly used investigations in increasing order are: ultrasound system (2500 kWh, 0.74 tCO<sub>2</sub>e), CT scanner (20 000 – 35 000 kWh, 5.9-10.4 tCO<sub>2</sub>e), PET-CT scanner (52 000 kWh, 15.4 tCO<sub>2</sub>e), and MRI scanner (80 000-170 000 kWh, 23.7-50.3 tCO<sub>2</sub>e). Data for onboard imaging and picture storage is currently limited but an active area of research.

**15 Do not use single use disposable items when recyclable or reusable alternatives exist in clinics and brachytherapy departments.**

Hospital and clinic waste is transported to landfills or incinerated resulting in significant GHG emissions. Choosing reusable supplies (ex. Gowns, drapes) or recyclable products (ex. Masks, sterilization wraps) over products that are incinerated can significantly reduce carbon emissions. Proper disposal of medical waste (ex. not contaminating recyclables with biohazards) is critical. Health care providers are encouraged to support clinical waste audits in their departments.

**16 Don't conduct in-person visits for oncology care if a virtual visit is feasible, safe, clinically appropriate (i.e. no physical exam required, not for delivery of bad news or major updates) and is preferred by the patient.**

Several guidelines exist for the use of virtual care in oncology. These emphasize importance of calculated and appropriate triage, maximizing safety and equity. Transportation is currently the largest source of greenhouse gas (GHG) emissions. Cars emit an average of 206g of CO<sub>2</sub> emissions per km. Virtual care can mitigate climate change by providing care from a distance and is also associated with substantial cost benefits and improved access. Various studies have shown that virtual visits are associated with a significant reduction in CO<sub>2</sub> emissions as well as significant cost reductions to patients.

## How the list was created

To help create the cancer specific list for Choosing Wisely Canada, a Tri-Society Task Force was convened by the Canadian Partnership Against Cancer in late 2013. The Task Force included representatives from the Canadian Association of Radiation Oncology (CARO), Canadian Association of Medical Oncologists (CAMO) and Canadian Society of Surgical Oncology (CSSO). Through a multipronged consensus process of the Task Force, along with broader society member engagement, an initial list of 66 practices was generated. In addition, a framework for subsequent selection of low value/harmful practices was established and included the following elements: (1) the size of population to which practice is relevant; (2) the frequency of use of the practice in Canada; (3) the cost of the practice; (4) the evidence/degree of harm of practice; and (5) the potential for change in use of the practice. Based on this framework, and after an iterative adjudication and voting process, this list was first reduced to a long list of 41 practices, then to a short list of 19 practices, and subsequently to a final list of 10 low value, unnecessary, or harmful practices. Many practices were considered, including cancer-related practices previously identified in the U.S. Choosing Wisely® campaign. Recommendation 3 was adapted with permission from the Five Things Physicians and Patients Should Question, © 2014 American Society of Clinical Oncology. Recommendations 5 and 6 were adapted with permission from the Five Things Physicians and Patients Should Question, © 2013 American Academy of Hospice and Palliative Medicine. Recommendations 7 and 8 were adapted with permission from the Five Things Physicians and Patients Should Question, © 2013 American Society for Radiation Oncology.

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### About the Canadian Society of Surgical Oncology (CSSO)

The Canadian Society of Surgical Oncology (CSSO) is a proud partner of the Choosing Wisely Canada campaign. The CSSO is a national association of surgical oncologists that promotes the optimum treatment of the patient with cancer through a multi-disciplinary treatment approach. The association fosters the development of education in cancer for both graduate, undergraduate and continuing medical education and encourages the development of research in oncologic surgery. The CSSO believes in facilitating communication between surgeons whose primary interest lies in the field of oncology and encourages the formation of surgical oncology training programs among Canadian Universities.



### About The Canadian Association of Medical Oncologists

The Canadian Association of Medical Oncologists (CAMO) is a proud partner of the Choosing Wisely Canada campaign. CAMO, a national specialty society of the Royal College of Physicians and Surgeons of Canada, will contribute to cancer control, through research, education, and clinical practice in prevention, screening, diagnosis, treatment, supportive care, palliative care and rehabilitation. CAMO is committed to achieving and maintaining, among its members, excellence in clinical and scholarly activity, within a culture of compassion and respect for human dignity.



### About The Canadian Partnership Against Cancer

The Canadian Partnership Against Cancer (CPAC) is a proud partner of the Choosing Wisely Canada campaign. CPAC is an independent organization funded by the federal government to accelerate action on cancer control for all Canadians. CPAC works with cancer experts, charitable organizations, governments, cancer agencies, national health organizations, patients, survivors and others to implement Canada's cancer control strategy.



### About Canadian Association of Radiation Oncology

The Canadian Association of Radiation Oncology (CARO) is a proud partner of the Choosing Wisely Canada campaign. CARO is a national professional association representing the official voice of radiation oncology in Canada in relation to the public interest and professional interest in the provision of radiation oncology consultative and treatment services. The association's regionally representative board structure and national membership facilitate the execution of its mission.



### About Choosing Wisely Canada

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care. One of its important functions is to help clinicians and patients engage in conversations that lead to smart and effective care choices.

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