Ontario Health
Cancer Care Ontario

Pandemic Planning Clinical Guideline for Patients with Cancer

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Contents

INTRODUCTION

In the event of a pandemic the directive for action will be coordinated through the Ministry of Health and Ontario Public Health, to all healthcare providers. This guidance document was produced by Ontario Health (Cancer Care Ontario) (OH-CCO) to provide recommendations for a systematic approach in determining priority for consultation and treatment of patients with cancer in Ontario during the time of a pandemic. This Guideline was informed by *Cancer Care Ontario's Pandemic Clinical Guideline for Patients with Cancer* (2009). This document is intended to augment other provincial and local plans by providing clinical guidance.

Guidance regarding infection prevention and control procedures will not be provided by OH-CCO; facilities providing cancer care should follow the direction provided locally by their respective facility.

Planning Assumptions

It is anticipated that a pandemic may lead to capacity pressures that impact delivery of care in the cancer system. During a pandemic, it is assumed that the following occurs during a pandemic, which requires action such as that recommended within this document

- A pandemic will hit in one or more waves. Each wave may last for several weeks.
- At the peak of the pandemic wave, a significant proportion of staff will be ill or not available to work (e.g. due to school closures, family obligations, fear).
- Hospital inpatient and outpatient areas will experience capacity challenges.
- Clinical staff, where feasible and with appropriate training, will be deployed to the most critical/essential areas.
- Home and community care-based services will be stressed.
- The clinical guidance from this document will be used to provide care for patients with cancer who do not have a pandemic-related illness (e.g. infection) but require cancer treatment and/or services in Regional Cancer Centres, hospitals, and in community ambulatory settings.
- The process for patients with pandemic-related symptoms or urgent medical (non-cancer) issues will be as per the local hospital pandemic plan and as outlined for patients with cancer in the primary care setting.

Preface

It is recognized that there is a need to treat cancer patients during a pandemic. The definition of pandemic according to the World Health Organization (WHO) is a worldwide spread of a new disease. A pandemic occurs when a new disease emerges and spreads around the world, and most people do not have immunity. In many instances, cancer is a potentially life threatening disease when left untreated.

A system to determine a priority for consultation and treatment of patients with cancer is necessary to have a consistent approach for all facilities across the province. It is important to avoid, as much as possible, having different levels of care. A "cancer patient priority classification" has been developed by the Clinical Programs to assist cancer programs in the management of patients referred with a cancer diagnosis. It is likely that there will be a dynamic situation that will vary from day-to-day. The patient priority classification is intended to allow flexibility determined by the local circumstances and available resources.

It is recognized that local or regional circumstances and the availability of resources may influence a cancer program's ability to follow the criteria. If some regions are hit harder than others, a transfer and re-referral system is recommended for patients with potentially life-threatening or rapidly progressing curable cancers.

In the situation where there is a serious shortage of staff, hospital ambulatory clinics and many services will be cancelled. There will be a focus on potentially life-threatening and urgent care in the inpatient setting where staff can be re-deployed. Ambulatory cancer patients should be included in the focus on life-threatening and urgent care, with the recognition that some patients will need to be treated and the cancer centre may need to be considered for staff re-deployment. However, professional expertise is required for the treatment of cancer patients. Radiation therapists, physicists, chemotherapy nurses and pharmacists are essential for appropriate and safe delivery of treatment. Staff with these skills should not be redeployed to help in the acute care areas. Cancer Centre staffing will be affected by the pandemic and those remaining with the necessary skill sets should continue to treat cancer patients. Medical, surgical, and radiation oncologists and palliative care physicians are also essential for ambulatory management of cancer patients.

It is likely that many cancer patients and their families will worry about how a pandemic might affect their care and treatment. Patients will be concerned about contracting the virus and subsequent impact, whether treatment will continue, what decisions will be made that might affect their treatment, and how they will continue to access the services of oncologists and other healthcare providers (e.g., social workers). New patients may be worried about whether their treatments will be delayed, and if that is the case, what the implications might be. It is important to recognize the increased level of distress that cancer patients and their families might face during this time, over and above the distress already experienced in relation to their diagnosis and treatment. As a result, it is vital that supports be in place in each cancer program and hospital to assess the level of distress and intervene appropriately. This may mean that psychosocial staff will be best utilized to assess distress and be available to address the ongoing needs of patients and families. Some assessments and interventions can take place over the phone, if there are restrictions related to access to the hospitals and cancer centres. Telehealth consultations may be more appropriate in some regions; clinicians and patients are reminded that this is often an excellent way to initiate and maintain contact and help in the management of emotional distress.

Resources may affect the capacity for centres to treat nearly as many patients as usual. Determining which patients will be treated may be necessary. An ethical framework for decision-making is required and follows next.

ETHICS GUIDELINES

In a situation of very limited human resources the *principle of justice* will be the prominent principle to which one will appeal within a context of *respect for the patient's autonomy* (respecting the patient's wishes regarding his or her treatment), *beneficence* (doing good for the patient) and *non-maleficence* (not harming the patient unnecessarily). The principle of justice entails treating people and groups fairly and equitably, according to need. People who are well need less medical care than those who are sick. Our criterion for deciding who is "more or less" equal in medical care is ***need*** and ***efficacy of treatment***.

For further information, please refer to the Public Health Agency of Canada framework for ethical decision making in public health[1].

In this document we are offering a priority classification for cancer patients in which justice is used as the essential principle to which one appeals, with ***need*** and ***efficacy of treatment*** used to determine the terms under which patients are treated, where they are treated and when they are treated. ***Need*** means severity of symptoms such as intractable pain, life-threatening complications of the disease or its treatment such as superior vena cava obstruction, impending airway obstruction or febrile neutropenia as well as the potential life-threatening nature of the cancer itself. ***Efficacy*** means the effectiveness of the treatment in curing the cancer as well as the control of life-threatening or unstable situations.

Priority A defines those who are deemed critical (unstable, unbearable suffering, and/or whose condition is immediately life threatening) and for whom there is effective treatment. Their immediate need is greatest and we must find ways (either in the geographic area of the pandemic or elsewhere) where treatment can be instituted or continued.

Priority B determines those who are deemed to be non-life threatening who can be deferred and services that may be discontinued during a wave of the pandemic event. Physicians will determine that these patients are not put at undue risk. If their priority changes, they will be moved to priority A and treated at a cancer centre or other appropriate facility somewhere in the province or country.

Priority C determines those for whom services may be discontinued during the entire pandemic event (multiple waves of 6-8 weeks). These patients are, for the most part, undergoing routine follow-up or screening and can reasonably wait until the pandemic is over.

It is the ethical responsibility of the practitioner, often with consultation, to fairly evaluate an individual patient using the fundamental criteria of need and efficacy of treatment to categorize him or her as Priority A, B, or C.

Appeals of decisions regarding prioritization of patients or programs will be decided by a local appeals committee made up of the Medical Director, the relevant Program Director, a bioethicist if available and others felt relevant to the particular decision. The structure and approach for this process is at the regional/facility discretion.

It is anticipated that each wave of the pandemic will occur in a particular geographic area so that other area cancer clinics and hospitals may be utilized for Priority A patients when necessary. In the event of a widespread pandemic where this is not possible, the same criteria will be used to prioritize but it is realized that even all Priority A patients might not receive prompt treatment.

CANCER PATIENT PRIORITY CLASSIFICATION

Clinical Programs

Clinical guidance is provided in this document for the following programs:

1 1 https://www.canada.ca/content/dam/phac-aspc/documents/corporate/transparency/corporate-management-reporting/internal-audits/audit-reports/framework-ethical-deliberation-decision-making/pub-eng.pdf

1) Cancer Screening Programs
    - Ontario Breast Screening Program (OBSP), including the HR OBSP
    - ColonCancerCheck program (CCC)
    - Ontario Cervical Screening Program (OCSP)
    - High Risk Lung Cancer Screening (HRLCS) Pilot
2) Familial Oncology Clinics (Clinical Genetics)
3) Palliative Care and Symptom Management
4) Radiation Treatment Program
5) Surgical Oncology Program
6) Systemic Treatment Program

Priority Classification

Priority A – Patients who are deemed critical and require services/treatment including supportive treatments/psychosocial care/ toxicity management even in the event of a pandemic because their situation is unstable, has unbearable suffering and/or immediately life threatening. The following is a list of situations in which patients need priority assessment. Such patients may need admission depending upon resources and the severity of the condition. The list is not limited to these situations. The important factor is that a patient has a condition (suspected or confirmed) that has the potential to be life-threatening, is clinically unstable or completely intolerable.

- Rapidly progressing tumours such as brain, acute leukemia, aggressive lymphomas, cervical cancers, anal cancers and most head and neck cancers require assessment. Such patients may have priority for ambulatory radiation or chemotherapy if their cancer is potentially curable.
- Spinal cord compression requiring emergency MRI and radiation oncology consultation and ongoing symptom management.
- SVC syndrome, requiring radiation oncology consultation.
- Septic shock.
- Acute and massive GI bleed or hemoptysis – requiring aggressive analgesic and anxiolytic admission, possible investigation to identify source of bleeding, possible radiation oncology consultation depending on site and etiology of the bleed.
- Acute pain crisis – requiring assessment to determine etiology of acute pain and initiate appropriate pain control measures.
- New onset, acute delirium – probably requiring assessment of patient to determine etiology and appropriate treatment of delirium.
- Acute, new onset or progressive dyspnea – requiring assessment; depending on etiology and performance status, the patient may need radiation, thoracentesis, chest tube drainage, possibly pleurodesis, and possibly palliative chemotherapy, or, if intervention is not appropriate or possible, then symptomatic management of dyspnea will be needed.
- Malignant bowel obstruction or bowel perforation – requiring assessment and alleviation of acute symptoms, may need radiology services, and may need NGT decompression of G-tube or surgical procedure.
- Metabolic crisis assessment and care for hypo- and hypercalcemia.
- Pathologic fractures of an anatomical location requiring orthopedic assessment regarding fracture stabilization, radiation oncology consultation, and ongoing pain management.

Priority B – Patients who require services/treatment (including supportive care, psychosocial care and toxicity management) in the cancer centres, hospitals or primary care settings but whose situation is deemed non-critical (no unbearable suffering, patient is stable and condition is not immediately life

threatening). In the event of a pandemic where services might only be deployed to provide care for Priority A patients or Priority A and some priority B patients, services/treatment could be discontinued or transferred to the community, if possible for the period of the pandemic wave (6-8 weeks).

- Within Priority B, the largest category of patients, sub-categories will emerge – patients would receive services/treatment based on availability of resources and anticipated clinical outcomes (i.e., potential for cure adversely affected by delay in treatment; risk to patient if he or she develops the pandemic infection during treatment). Some patients with cancer will receive assessment, diagnostic follow-up, or treatment more quickly than others depending on his or her particular need.

Priority C – Patients who are generally healthy whose condition is deemed as non-life threatening where the service can be delayed without anticipated change in outcome. Staff will be deployed elsewhere. If the community is affected by the pandemic, these services can be discontinued for the duration of the pandemic. The following are examples of Priority C services:

- CCO Cancer Screening routine screening appointments (OBSP, CCC, OCSP, HRLCS Pilot).
- Genetics Familial oncology clinics.
- Follow up visits and Survivorship clinics. Tests such as CT scans etc. may also be deferred.
- Non-melanoma skin clinics.
- Prevention clinics.

For those Priority A and B's who receive systemic/radiation/surgical treatment, there will be support that is required. These include:

- For head and neck cancer patients who need tube feeding management and nutrition
- Hydration for dehydration
- Ambulatory pump discontinuations in the community
- Flushing of peripheral IV locks and CVAD's
- Management of any drainage devices (e.g. drains post-surgery)
- Management of nephrostomy tubes/chest tubes or wounds (breast, sinuses on the body)
- Changing dressings, casts etc.
- Administration of subcutaneous drugs (e.g. prostate anti-hormone treatment)
- IV medications/electrolytes not part of systemic treatment (likely captured in the palliative already)

Whenever possible, especially for cases likely to fall into Priority B &C (based on referral documentation) that consultations occur by telephone or via telemedicine to avoid patients having to come into the cancer centre) This refers to systemic and surgical programs as well

Community Services

Depending on where resources are available, some services that are not already delivered in the community could be delivered in the community in a pandemic situation: These include:

- Ambulatory pump discontinuations,
- Flushing of peripheral IV locks and CVAD's,
- Management of any drainage devices (e.g. drains post-surgery),
- Management of nephrostomy tubes/chest tubes or wounds (breast, sinuses on the body),
- Dressing changes,
- Administration of subcutaneous drugs (e.g. prostate anti-hormone treatment),

- IV medications/electrolytes not part of systemic treatment

OH-CCO CLINICAL PROGRAM CRITERIA FOR CLASSIFICATION OF PATIENTS INTO PRIORITY A, B & C

1) Cancer Screening Programs

a. Routine Screening for CCO Cancer Screening Programs (OBSP, CCC, OCSP, HRLCS Pilot): Priority C

All routine screening appointments can be deferred for the entire pandemic since screening activities for the healthy population would not be recommended while there is pandemic activity in the province.

b. Patients already screened, with abnormal screening results (but not highly suspicious): Priority C

Patients who have an abnormal screening result that is not highly suspicious for cancer on mammography, lung CT or cervical Pap screening may have their follow up appointment delayed. The feasibility of an assessment during the 6–8 weeks of a pandemic wave will depend upon availability of resources.

c. Patients already screened, with abnormal screening result that is highly suspicious for cancer: Priority B

Patients who have an abnormal screening result with highly suspicious findings should be seen for assessment and other follow up. As well, patients with an abnormal FIT result should be seen for follow up. The feasibility of an assessment during the 6–8 weeks of a pandemic wave will depend upon availability of resources.

d. Familial Oncology

From the start of the pandemic, all Genetics Clinics oncology patients should be cancelled if staff need to be deployed elsewhere. **Note: Genetics Clinics** see pregnant patients with potential issues and these are time sensitive and should not be cancelled.

2) Palliative Care Symptom Management

Screening tools will be used to classify patients into priorities A, B and C. Example of such tools include the Palliative Performance Scale (PPS) and Your Symptoms Matter.

The PPS is a reliable and valid tool used for palliative care patients. The PPS is divided into 11 categories that are measured in 10% decremental stages (100% to 0%). These categories are organized into three stages: 1) Stable, 2) Transitional and, 3) End-of-Life. The PPS provides a framework for measuring progressive decline over the course of illness.

Your Symptoms Matter – General Symptoms uses the revised Edmonton Symptom Assessment System (ESAS-r). ESAS-r is a valid and reliable assessment tool that helps screen for the 9 symptoms commonly experienced by people with cancer. This tool is designed to assist healthcare providers and patients in

their assessment of: pain, tiredness, nausea, depression, anxiety, drowsiness, appetite, well-being and shortness of breath. The severity of each symptom at the time of assessment is rated from 0 to 10 on a numerical scale, with 0 meaning that the symptom is absent and 10 that it is the worst possible severity. Selected ESAS-r scores such as pain, nausea and dyspnea can also be used to identify an oncology emergency that requires urgent attention. The PPS can be used to help identify which patients should be seen in a clinic or a home visit. When utilizing the ESAS and PPS tools, the emphasis may have to be on the change in a patient's scores with time rather than the absolute scores.

Palliative care populations Priorities A, B and C

Priority A

- Emergent palliative care symptoms in high functioning patient (PPS >60–70)
- Any PPS score with an oncologic emergency
- Any selected ESAS ≥7/10

Priority B

- Moderate problems with pain management necessitating medication adjustment – minor to moderate dose adjustments or switching of opioids could be done by telephone communication by the MD, NP or visiting RN (in consultation with the MD as necessary). Home visits or outpatient clinic appointments may be needed.
- Ascites – managed in the home setting or outpatient clinic with the use of pain medicines and paracentesis as needed in the outpatient setting or at home if available.
- GI complaints such as nausea and constipation can be managed with telephone consultations most of the time (e.g., utilize COSTaRs practice guides).
- Anxiety and depression can initially be managed by a home assessment, by visiting RN, NP or by MD. Follow-ups thereafter can be done by phone. If concerned regarding the status of the patient, then the RN, NP or MD will need to make another home visit or refer to appropriate psychosocial provider (e.g. social work, psychology, psychiatry).
- Patients with bony mets or possible PE/DVT based on clinical judgment alone and PPS <30
- Any selected ESAS-r ≥4 and <7
- Caregiver stress and burnout could be managed and facilitated through the use of hospice volunteers at the discretion of the facility. Some hospice agencies may decide not to have volunteers go out to homes depending on whether illness is community based and if PPE is readily available, therefore consider telephone support.

Priority C

- Patients with ESAS-r scores <4 who are stable

3) Radiation Treatment Program

All Radiation Programs in Ontario have explicit or implicit prioritization and wait list management systems in place. These should be reviewed regularly, documented and discussed with local disease site teams. These prioritization and wait list management systems will be beneficial when dealing with capacity shortfalls during a pandemic. The local Radiation Program prioritization criteria, as well as the CCO Priority Categories (1, 2 and 3) would determine in which priority category (A, B or C) patients will be classified (see table X below).

It should be possible to determine, at the time of consultation, whether the risks of the pandemic infection outweigh the risks of delaying treatment for that individual patient. It should be noted that a delay in instituting radiation treatment should be as short as possible. Evidence suggests that there is no safe delay period, so the decision rests on an assessment of relative risks for an individual patient.

Patients on follow up should be grouped into low and high risk and the low risk patients rescheduled to an appointment after the pandemic is over. Special consideration will need to be given to patients who need to travel between cancer centres for portions of their treatments e.g. Brachytherapy for cervix/prostate cancer given in one institution and external beam treatment given in another. With the regionalization of cancer care, not all centres treat all disease sites e.g. Sarcoma. If one of the specialized centres were unable to accept new cases, this would require special attention.

Table 1: Radiation patient populations priorities A, B and C

Priority	***Description***	***Examples***
Priority A CCO Priority Categories 1 and 2	All emergency and urgent patients where alternative management to radiotherapy is not possible, Patients with rapidly progressing, potentially curable tumours. Patients already on treatment.	Patients with cord compression not amenable to surgery would need to be treated but patients with bone pain might be able to be managed temporarily with adjustments to pain medication.
Priority B CCO Priority Category 3	All other patients with cancer needing radiotherapy. Within this priority level, subcategories would be determined using the local priority methodology (as described above). Patients should be followed by telephone where possible to ensure they have not progressed to Priority A.	
Priority C	Includes the rare patient with benign disease needing radiation treatment, such as pituitary adenoma and meningioma. It may be possible to delay these cases until the pandemic is over. Referral information will be reviewed by the oncologist or designate and a decision made as to whether their consultation can be delayed. Patients on follow up should be grouped into low risk and high risk, and the low risk patients rescheduled to an appointment after the pandemic is over. Telephone follow up for high risk cases should be utilized as far as possible.	

4) Surgical Oncology Program

Wait lists will require regular review to determine priorities in light of bed and resource availability.

In critical bed and resource situations, the surgical priority may need to be on life-saving procedures for those patients whose long-term prognosis for survival from cancer is good.

Outpatient cancer surgery for Priority A or B patients should be included in hospital plans, if resources are available. Hospitals may plan to discontinue most outpatient surgery as it is not urgent.

The overall criteria for surgical oncology pandemic priorities (A, B and C) generally align with the Wait Times Information System (WTIS) priorities (1 through 4).

Table 2: Surgical patient populations' priorities A, B and C

Priority	*Description*	*Examples*	*Considerations*
Priority A (WTIS Priority Categories 1 and 2 and some Priority Category 3, emergent and very aggressive tumours).	Patients in whom a delay in surgery would result in either an immediate threat to life or limb, or would significantly alter the patient's prognosis.	Patients with obstructions, bleeding or perforations requiring immediate surgery Other patients would be those with a narrow window of opportunity for definitive surgery, such as those who have been on neoadjuvant protocols. A significant delay for the neoadjuvant patients could negatively impact on their outcome by allowing for recovery of residual cancer and thus losing the benefit invested in the neoadjuvant approach.	1. It is important that all patients are listed in the Wait Times Information System (WTIS) to allow the hospital and province insight to significant delays. 2. As Priority A patients will represent the sickest of our population, there will be requirements for ICU and step-down care for post-operative management of some of these patients. Of which these beds may be in high demand during a pandemic. 3. All priority patients, especially Priority B, would have to be followed clinically as excessive delays, evidence of unexpected progression, or the onset of symptoms (e.g., bleeding, obstruction) would mandate escalation to Priority A.
Priority B (WTIS Priority Category 3 and some Priority Category 4 tumours).	Patients for whom a delay of <4 weeks from target would not be anticipated to impact significantly on survival or outcome	Most solid tumour cases (e.g., breast, colon, lung, GU, gyne, head and neck, GI), provided delays were in the range of 4 weeks.	
Priority C (WTIS Priority Category 4, indolent tumours).	Patients for whom a delay of 2 months would be unlikely to affect outcome	Well differentiated thyroid cancers, early prostate cancers and non-melanoma non-squamous cell skin cancers.	

The ability to perform cancer surgery requires many hospital resources/departments which may constrain the volume of surgeries performed. For example:

- Prior to surgery preoperative laboratory work up and radiology services as well as medical consultation in some cases (e.g., cardiology and respiratory specialist availability).
- Surgery itself requires anesthesiology staff, surgeon and assistant, operating room nursing, pathology and radiology services, recovery room and peri-operative nursing, and inpatient care nursing.

- There likely will be the need for ICU and step down care for post-operative management of some of these patients. These ICU beds may be occupied by pandemic-related symptomatic patients.
- A functioning operating room will require some level of ongoing support from the hospital's material management and services sections (sterilizing and processing instruments, cleaning etc.).

5) Systemic Therapy

Patients who fall into Priority A should continue to be seen to determine if treatment is urgent/curative. Local disease site teams will determine which patients are deemed curative and/or urgent.

Patients who fall into Priority B can be deferred for several weeks. A mechanism is required (e.g., by phone) to ascertain that new problems have not developed if the decision is not to treat urgently, and for patients to contact the treatment centre to be assessed if problems arise.

In situations where there are insufficient resources to treat all Priority A curative and/or urgent cases, patients with life-threatening symptoms who have potentially curable cancers will be given priority.

In situations where there are no hospital beds, ambulatory treatment strategies may be required where inpatient care is the normal approach.

Table 3: Systemic treatment patient populations' priorities A, B and C

Priority	*Description*	*Examples*
Priority A	Those patients being treated who have aggressive tumours. Patients with life-threatening situations. Some patients already receiving treatment.	Some leukemias, lymphomas, CNS, or transplant. Leukemic leucostasis, or medical emergencies such as febrile neutropenia and hypercalcemia.
Priority B	The majority of patients requiring chemotherapy will be priority B. For patients starting therapy, recognizing that there are little to no data supporting long delays, this will be a judgement call for each patient. Patients already receiving therapy will need to be assessed as to whether they require ongoing treatment and should be considered Priority A. Those patients that can possibly wait weeks before continuing treatment should be considered Priority B.	
Priority C	Patients receiving oral hormone therapy, especially in the adjuvant setting.	

	Patients receiving follow up care Patients on IV bisphosphonates if that is the only IV treatment required.	

CRITERIA TO DETERMINE WHETHER A PROGRAM/SERVICE SHOULD CEASE OPERATING

1) Screening Programs

Cancellation of all routine breast screening services and lung cancer screening services, since screening is elective and targets well individuals if the pandemic warrants a need to deploy staff/health care providers elsewhere or staff/health providers are ill and unable to attend the clinic.

Family doctors and other primary care providers might cancel colorectal cancer screening and cervical screening if the pandemic warrants a need to deploy elsewhere or staff/health care providers are ill an unable to attend the clinic.

The feasibility of an assessment during the 6–8 weeks of a pandemic wave will depend upon availability of resources and clinical decision.

2) Palliative Care Program

The primary issue when planning for a pandemic is the issue of human resource management. A screening tool would be required to triage patients for pandemic-related symptoms by telephone. It would be important to identify which patients need to be seen and which patients could be managed via telephone. The telephone will have to be utilized more in the event of a pandemic.

In the event of a pandemic resulting in limited resources (e.g., physicians, community nurses, and hospital beds), using unoccupied hospital outpatient clinic space (most ambulatory clinics will be closed during the pandemic wave) may be considered. This might help to ensure higher efficiency for staff, while utilizing fewer nurses and physicians. The clinic could be supplied with “holding beds” and nasogastric tubes, etc., for use until the patient is stabilized and sent back home. Patients with PPS>60% could be seen in the expanded clinic for assessment. For patients with PPS < 50%, consideration should be given to managing crises in the home where possible with expanded use of parenteral and other therapies such as paracentesis or management of bowel obstruction. Telephone triage could be used to determine if a home visit is necessary. Utilization of virtual visits would be a very valuable management approach.

3) Radiation Treatment Program

If there are insufficient staff in any department or professional group to ensure safe and high-quality planning and treatment, and if other professional groups are unable to cover this work, then that aspect of care would need to cease. Radiation planning and treatment is a multiple-step and complex process so that disruption of any aspect can cause complete cessation of care. Re-referral of patients to other centres may be an option depending on the extent of the pandemic and regional access.

4) Surgical Oncology Program

Purely elective procedures should be put on hold. Examples of services that would be suspended are elective joint replacements, elective surgery (non-incarcerated hernias, non-acute gallbladders), and cosmetic surgery. Essentially all non-urgent and non-cancer surgery should come to a standstill until urgent and cancer cases are looked after, and the post-pandemic cancer backlog is addressed.

5) Systemic Therapy Program

The program would cease to function if insufficient staff were available to ensure that all safety standards would be met. It is assumed that patients will be triaged and accommodated in another program according to priority (see section 7, re-referral)

CANCER PROGRAM OPERATIONAL RECOMMENDATIONS

1) Symptomatic Patients

- Office and hospital-based protocols should be applied[2].
- Unless there is a life-threatening situation, patients who exhibit infectious symptoms consistent with the pandemic will not be treated with chemotherapy, cancer surgery or radiation treatment.
- A process is necessary to determine whether patients booked for the next day's clinic have 'pandemic-related symptoms' for which they will be advised to follow the hospital's process for patients with these symptoms. Patients with a pandemic-related infection will not attend a clinic.
- To protect staff and other patients, a protocol will be necessary for those patients attending a clinic who have pandemic-related symptoms thought to be cancer-related or a treatment side effect, in case the patient does have an infection.

2) Cancellations

- Follow-up patients for visits greater than six months.
- Non melanoma skin clinics.
- Genetics clinics (oncology patient visits).
- Prevention clinics.
- Program Priority C patients, OBSP and HRLCS clients.

3) New Patients

Many major cancer centres are located within or in close proximity to large general hospitals and therefore subjected to reduction in ambulatory care services and other services during the pandemic. New patient intake and support of patients during active treatment should be prioritized for cancer patients in the ambulatory care setting but subject to increased disease transmission protection protocols as determined by hospital leadership.

- A triage process for new patient referral is necessary.

2 Ontario Health Plan for an Influenza Pandemic (OHPIP) 2015. http://www.health.gov.on.ca/en/pro/programs/emb/pan_flu/docs/ch_01.pdf

- A process should be established to review referrals following their receipt at the cancer centre to determine priority A, B or C.
    - Priority A patients should be contacted with an appointment. If resources are not available in a particular hospital, the process of re-referral may be implemented (see 6. Re-referral below).
    - Priority B patients should be contacted by an individual responsible for triage (preferably an oncologist or a nurse) to undertake a phone consultation and to explain process for appointments. Patients should be put onto a list and informed that they will be contacted again for an appointment. It will be necessary to verify referral information and provide to the patient a number to call if the clinical condition changes.
- Each centre should determine how the triage will work within their organization depending upon their available resources.

4) Treatment Patients

- Where possible, patients already on treatment should continue therapy.
- Patients in Priority A should be treated.
- Waiting lists should be created for Priority B patients requiring treatment.
- Patients should be contacted by a triage nurse to discuss the situation and indicate that treatment should be initiated as soon as feasible.
- As treatment slots become available, patients on the 'waiting list' should be contacted. Patients should be given a telephone number to call in the event that their condition changes.
- Discussion should occur with the patient regarding the balance between any delay in initiating treatment versus adverse effect of contracting an infection with risk of complications if the patient is immunocompromised by the therapy (especially chemotherapy).

5) A Cancer Tele-health Line

- A cancer tele-health line should be set up in each centre and staffed appropriately for patients to call if they have any questions.

6) Patient Communication

- It will be up to each organization to determine how they will communicate with patients during a pandemic.
- Providing information directly over the phone, complemented by a written letter stating key messages, is recommended.
- The individual handling triage should call patients who have been waiting for treatment, and complete an assessment over the phone to determine whether it is appropriate to continue to wait for treatment.

Key messages for patients:

- The health system is dealing with a large health crisis right now.
- All efforts to keep cancer care running normally will be made, but there may be some changes in the way we plan your care.
- There is a process for determining who needs to be treated right away, based on priority. Your healthcare team can answer any questions you have about this process (note: some patients may require more information than others and all questions must be answered honestly).
- You will either be given an appointment time or be put on a waiting list for an appointment.
- Call us at X telephone number if anything changes with your health.

7) Re-referral and Shortages

- If there is a regional disparity in the impact of the pandemic on a cancer program's ability to see and treat patients, a re-referral process is recommended.

In the event that a hospital determines that it is no longer safe to offer a cancer service they should inform OH-CCO to initiate a re-referral process for priority A and B patients.

In the case of required re-referral OH-CCO will:

- Provide clinical guidance on priorities
- Support region-to-region or provincial conversations about potential capacity pressures and broader strategies

The following is considered out of scope for OH-CCO:

- Provide advice or coordinate re-referral on specific patients.

Table 4: RASCI matrix for re-referral of priority A and B patients

	CCO	RCP	Hospital
Provide clinical guidance on priorities for re-referral, vs deferral	Responsible	Informed	Informed
Identify patient requirements based on guidelines and hospital policy	Informed	Supporting	Responsible
Facilitate discussions re: re-referral within region based on patient requirements and clinical guidelines	Informed	Responsible	Supporting
Facilitate discussions re: re-referral across regions or provincially	Responsible	Supporting	Informed
Facilitate re-referral (provider-to-provider communications re specific patients)	Informed	Supporting	Responsible

It is acknowledged that shortages of drugs and supplies required to deliver cancer care may occur in a pandemic situation. In the event of shortages of shortages, CCO will support centres with expert advice around alternative treatment options, work with Health Canada to advocate for supply when needed and other provincial cancer agencies as well as manufacturers to understand the extent of the shortage and resupply dates.

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APPENDIX A: CCO PANDEMIC PLAN REVIEWERS (2020)

The CCO Pandemic Plan Review Group referenced below reviewed and updated the Cancer Care Ontario's Pandemic Clinical Guideline for Patients with Cancer (2020)

- Garth Matheson, President & Chief Executive Officer (Interim), and VP, Planning & Regional Programs and Analytics & Informatics
- Dr. Robin McLeod, VP, Clinical Programs and Quality Initiatives
- Dr. Leta Forbes, Provincial Program Head, Systemic Treatment
- Dr. Padraig Warde, Provincial Program Head, Radiation Treatment
- Dr. Jonathan Irish, Provincial Program Head, Surgical Oncology Program
- Dr. Tom Kouroukis, Provincial Program Head, Complex Malignant Haematology
- Dr. Robert Sauls, Provincial Program Head,
- Dr. Aaron Pollett, Provincial Program Head
- Lorraine Martelli, Provincial Program Head
- Dr. Andrew Morris, Medical Director, Sinai Health Systems/University Health Network
- Erin Redwood, Manager, Ontario Palliative Care Network
- Colleen Fox, Director, Person Centred Care
- Katerina Podolak, Director, Cancer Screening
- Elaine Meertens, Director- Diagnosis and Treatment
- Vicky Simanovski, Director Regional Program Development and Funding Unit
- Regional Cancer Programs also provided input into this document via the Regional Vice Presidents

APPENDIX B: CCO PANDEMIC PLANNING COMMITTEE (2009)

The CCO Pandemic Planning Committee referenced below developed *Cancer Care Ontario's Pandemic Clinical Guideline for Patients with Cancer* (2009).

- Michael Sherar, VP, Regional Programs (Chair)
- Steve Hall, IT Director, CCO
- Esther Green, Chief Nursing Officer, CCO
- Dr. Maureen Trudeau, Provincial Lead – Systemic Therapy, CCO
- Dr. Anne Smith, RVP Southeast Regional Cancer Program
- Garth Matheson, RVP Simcoe Muskoka Regional Cancer Program
- Mark Hartman, Planning Director Northeast Regional Cancer Program
- Dr. Brian Schwartz, Scientific Advisor, Emergency Management Unit, MOHLTC
- Dr. Michael Gardam, Infection Prevention and Control, UHN
- Christine Naugler, Public Affairs, CCO

Two sub-committees –

- Business Continuity Sub-committee
- Clinical Sub-committee Chair Dr. Anne Smith
- Dr. Deborah Dudgeon, Provincial Program Head Palliative Care, CCO
- Esther Green, Provincial Program Head Nursing and Psychosocial Oncology, CCO
- Dr. Maureen Trudeau, Provincial Program Head, Systemic Therapy, CCO
- Dr. Padraig Warde, Provincial Program Head. Radiation Oncology, CCO
- Dr. Jonathan Irish, Provincial Program Head, Surgical Oncology, CCO

- Dr. Verna Mai, Director Screening, CCO
- Dr. Cheryl Levitt, Provincial Clinical Lead, CCO
- Mark Hartman, Regional Cancer Program of the Hopital Regional de Sudbury Regional Hospital (HRSRH)
- Dr. Michael Gardam, Infection Prevention and Control, UHN
- Andrea Frolic, Clinical & Organizational Ethicist, Hamilton Health Sciences
- Janice Stewart, Director In-Patient and Ambulatory Services, PMH

APPENDIX C. PANDEMIC PLANNING ASSUMPTIONS – INFLUENZA A (H1N1)

The following planning assumptions were included in *Cancer Care Ontario's Pandemic Clinical Guideline for Patients with Cancer* (2009):

- Pandemic will hit in one or more waves. Each wave will last 6–8 weeks.
- At the peak of the pandemic wave, 20%–25% of staff will be ill or not available to work (due to school closures, family obligations, fear).
- Hospital inpatient and outpatient areas will be overwhelmed. In a moderate pandemic, it is estimated that:
    - 29.4% of Ontario's population will not be infected
    - 35% of Ontario's population will be infected but show no symptoms
    - 16.7% of Ontario's population will experience mild symptoms
    - 18.3% of Ontario's population will seek outpatient services
    - 0.4% (55,000) of Ontario's population will need to be hospitalized
    - 0.1% of Ontario's population will die from influenza
- Clinical staff, where feasible and with appropriate training, will be deployed to the most critical/essential areas.
- CCAC/home-based services will be stressed.
- The plan is for cancer patients who do not have influenza but require cancer treatment and/or services in Regional Cancer Centres, in hospitals and in community ambulatory settings.
- The process for patients with influenza symptoms or urgent medical (non cancer) issues will be as per the local hospital pandemic plan and as outlined for cancer patients in the primary care setting.