



## Cancer in the context of COVID-19: Summary of emerging evidence (2)

Date: 31 March 2020

The CRI presents a selection of emerging research articles and clinical practice guidelines related to cancer and COVID-19, with a summary of their key findings/recommendations (links to the articles are embedded as hyperlinks in the titles). This is the second of our weekly compilation, which we plan to update and disseminate as the pandemic evolves globally and nationally.

For this week, we will be focusing on some of the currently available clinical guidelines related to the management of cancer in COVID-19 outbreak settings, some of which had been shared in the past week via the [CRI Twitter page \(@UctCri\)](#). We hope that insights from these pieces of evidence will help guide how we rethink cancer prevention, treatment and care in the context of the ongoing pandemic, in view of its unprecedented implications for patients, healthcare providers and the community in general. Previous weeks' editions can be found on the [CRI website](#).

### A. For providers

#### [American College of Surgeons. COVID-19 Guidelines for Triage of Breast Cancer Patients. March 24, 2020](#)

**Country Context:** USA

A set of guidelines for triaging breast cancer patients in the context of the COVID-19 pandemic. It specifies the following triage phases:

**Phase I. Semi-Urgent Setting (Preparation Phase):** Few COVID 19 patients, hospital resources not exhausted, institution still has ICU vent capacity, and COVID trajectory not in rapid escalation phase. Surgery should be restricted to patients likely to have survivorship compromised if surgery not performed within next 3 months.

The following cases need to be done as soon as feasible:

- Neoadjuvant patients finishing treatment
- Clinical Stage T2 or N1 ERpos/PRpos/HER2 negative tumors
- Triple negative or HER2 positive patients
- Discordant biopsies likely to be malignant
- Excision of malignant recurrence

Cases that should be deferred:

- Excision of benign lesions-fibroadenomas, nodules, etc...
- Duct excisions

- Discordant biopsies likely to be benign
- High risk lesions-atypia, papillomas, etc...
- Prophylactic surgery for cancer and noncancer cases
- Delayed SNB for cancer identified on excisional biopsy
- cTisNO lesions-ER positive and negative
- Re-excision surgery
- Tumors responding to neoadjuvant hormonal treatment
- Clinical Stage T1N0 estrogen receptor positive/progesterone receptor positive/Her2 negative tumors
- Inflammatory and locally advanced breast cancers

Alternative treatment approaches to be considered (assuming resources permit):

- Clinical Stage T1N0 estrogen receptor positive/progesterone receptor positive/Her2 negative tumors can receive hormonal therapy\*
- Triple negative and HER2 positive tumors can undergo neoadjuvant therapy prior to surgery
- Some Clinical Stage T2 or N1 ERpos/PRpos/HER2 negative tumors can receive hormonal therapy
- Inflammatory and locally advanced breast cancers should receive neoadjuvant therapy prior to any surgery

**Phase II. Urgent Setting:** Many COVID 19 patients, ICU and ventilator capacity limited, OR supplies limited or COVID trajectory within hospital in rapidly escalating phase. Surgery should be restricted to patients likely to have survivorship compromised if surgery not performed within next few days.

Cases that need to be done as soon as feasible:

- Incision and drainage of breast abscess
- Evacuation of a hematoma
- Revision of an ischemic mastectomy flap
- Revascularization/revision of an autologous tissue flap

Cases that should be deferred:

- All breast procedures

Alternative treatment approaches RECOMMENDED (assuming resources permit):

- Consider neoadjuvant therapy for eligible cases
- Observation is safe for the remaining cases

**Phase III:** Hospital resources are all routed to COVID 19 patients, no ventilator or ICU capacity, OR supplies exhausted. Surgery should be restricted to patients likely to have survivorship compromised if surgery not performed within next few hours

Cases that need to be done as soon as feasible (status of hospital likely to progress in hours)

- Incision and drainage of breast abscess
- Evacuation of a hematoma
- Revision of an ischemic mastectomy flap
- Revascularization/revision of an autologous tissue flap

All other cases deferred. Alternate treatment recommended.

**American College of Surgeons. COVID-19 Guidelines for Triage of Colorectal Cancer Patients. March 24, 2020**

**Country Context: USA**

A set of guidelines for triaging colorectal cancer patients in the context of the COVID-19 pandemic. It specifies the following triage phases:

**Phase I. Semi-Urgent Setting (Preparation Phase):** Few COVID-19 patients, hospital resources not exhausted, institution still has ICU ventilator capacity and COVID-19 trajectory not in rapid escalation phase.

Cases that need to be done as soon as feasible:

- Nearly obstructing colon
- Nearly obstructing rectal cancer
- Cancers requiring frequent transfusions
- Asymptomatic colon cancers
- Rectal cancers after neoadjuvant chemoradiation with no response to therapy
- Cancers with concern about local perforation and sepsis
- Early stage rectal cancers where adjuvant therapy not appropriate

Diagnoses that could be deferred 3 months

- Malignant polyps, either with or without prior endoscopic resection
- Prophylactic indications for hereditary conditions
- Large, benign appearing asymptomatic polyps
- Small, asymptomatic colon carcinoids
- Small, asymptomatic rectal carcinoids

Alternative treatment approaches to delay surgery that can be considered:

- Locally advanced resectable colon cancer
  - Neoadjuvant chemotherapy for 2-3 months followed by surgery
- Rectal cancer cases with clear and early evidence of downstaging from neoadjuvant chemoradiation
  - Where additional wait time is safe
  - Where additional chemotherapy can be administered
- Locally advanced rectal cancers or recurrent rectal cancers requiring exenterative surgery
  - Where additional chemotherapy can be administered
- Oligometastatic disease where effective systemic therapy is available

**Phase II. Urgent Setting:** Many COVID-19 patients, ICU and ventilator capacity limited, OR supplies limited.

Cases that need to be done as soon as feasible:

- Nearly obstructing colon cancer where stenting is not an option
- Nearly obstructing rectal cancer (should be diverted)
- Cancers with high (inpatient) transfusion requirements
- Cancers with pending evidence of local perforation and sepsis

Cases that should be deferred:

- All colorectal procedures typically scheduled as routine

Alternative treatment approaches:

- Transfer patients to hospital with capacity
- Consider neoadjuvant therapy for colon and rectal cancer
- Consider more local endoluminal therapies for early colon and rectal cancers when safe

**Phase III:** Hospital resources are all routed to COVID 19 patients, no ventilator or ICU capacity, OR supplies exhausted. Patients in whom death is likely within hours if surgery deferred.

Cases that need to be done as soon as feasible (status of hospital likely to progress in hours)

- Perforated, obstructed, or actively bleeding (inpatient transfusion dependent) cancers
- Cases with sepsis

All other cases deferred

Alternate treatment recommended

- Transfer patients to hospital with capacity
- Diverting stomas
- Chemotherapy
- Radiation

### **National Health Service (NHS). Clinical guide for the management of cancer patients during the coronavirus pandemic**

**Country context:** UK

In response to pressures mounting on the health services by the COVID-19 outbreak, the NHS issued a set of guidelines for cancer care providers. The guidelines cover five major areas of service delivery: leadership, surgery, systemic anti-cancer treatment, radiation therapy and proton beam therapy.

The key recommendations include:

- Categorising and prioritising patients by treatment intent and risk-benefit ratio associated with treatment.
- Identifying vulnerable patients and making contact to discuss changes to care and treatment
- Considering alternative and less resource-intensive treatment regimes.
- If appropriate, multi-disciplinary teams may consider non-surgical options, including prolongation of neoadjuvant treatment and non-surgical treatment if the outcomes are similar.
- Seeking alternative methods to monitor and review patients receiving systemic therapies.
- Changing intravenous treatments to subcutaneous or oral if there are alternatives.
- Selecting regimens that are shorter in duration.
- Home delivery of oral systemic anti-cancer treatment where suitable/available.
- Postponing long-term follow-up patient appointments until the crisis has passed.
- Exploring feasibility of virtual follow-up clinics.
- Following broader trust actions and protocols including testing and isolation of patients with coronavirus symptoms.

## American Society of Clinical Oncology. COVID-19 Patient Care Information

### Country context: USA

These guidelines were developed based on evidence gathered through PubMed searches of the medical literature, a search of relevant websites with information on infectious diseases (CDC, WHO, IDSA, etc.), and input from clinical oncologists and infectious disease experts. ASCO will update this information as new questions emerge and evidence develops. The guidelines cover areas of:

- Data (What are the current data on care of patients with cancer and COVID-19? Are patients with cancer more likely to be infected? Do they have more complications?)
- General care: What are the recommendations for general care of patients with cancer?
- Cancer-type specific guidance: How should care for patients with cancer types (e.g. breast cancer, lung cancer) be affected?
- Testing for COVID-19: What information is available on testing for COVID-19?
- Surgery: Can/should surgery be cancelled or delayed? If surgery is delayed, should patients be started earlier on neoadjuvant therapy if that is an available option?
- immunosuppressive therapy: Can/should potentially immunosuppressive therapy (except allogeneic stem cell transplantation) be stopped, delayed, or interrupted?
- Radiation: Can/should the initiation of radiation be delayed? Can radiation be interrupted or postponed if already in progress?
- Stem cell transplantation: Can/should allogeneic stem cell transplantation be delayed?
- Immune Checkpoint Inhibitors: Can/should treatment with immune checkpoint inhibitors (e.g. ipilimumab, nivolumab) be delayed or interrupted? Are any special precautions or actions needed with respect to their use?
- Prophylactic antiviral therapy: Should prophylactic antiviral therapy be considered?
- Other therapies: Are there any other therapies that should be delayed, interrupted, or stopped?
- Cancer screening: Can/should members of the community continue recommended cancer screening activities (e.g. screening mammography)?
- Diagnosis and staging: How can/should diagnosis and staging interventions (e.g. imaging visits, biopsy) be modified by the ongoing COVID-19 pandemic? Is there any evidence that COVID-19 infection influences the ability to diagnosis or stage disease (e.g. chest imaging for potential lung cancer)?
- Surveillance: Can/should patients receiving ongoing surveillance (e.g. imaging for detection of recurrence, active surveillance for existing disease) have that surveillance delayed/interrupted?
- Neutropenic fever and neutropenia: How can/should care for patients experiencing potential neutropenic fever and neutropenia be affected by the ongoing COVID-19 pandemic?
- Cancer-related anaemia: How can/should care for patients at risk for or experiencing cancer-related anaemia be affected by the ongoing COVID-19 pandemic?

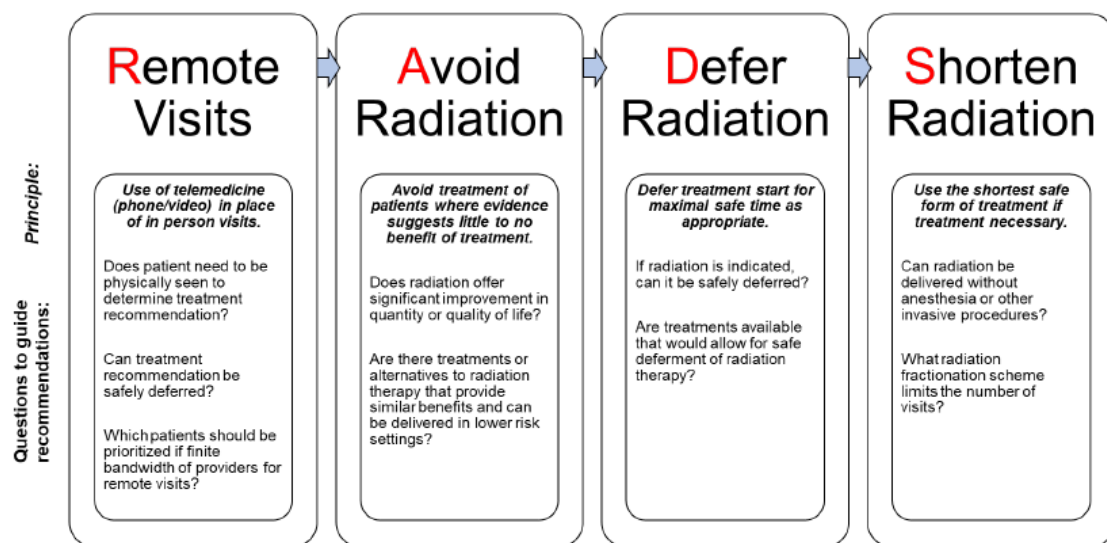
**Yale School of Medicine Department of Therapeutic Radiology faculty. COVID19 Yale Radiation Oncology Flowchart – Version March 20, 2020.**

**Country context:** USA

The guidelines present a work flowchart for handling cancer patients in the following different scenarios:

- Patient symptomatic and either screen positive or COVID-19 test positive
- Asymptomatic patients with direct exposure
- Patients test COVID-19 positive and asymptomatic

Overall, the guidelines make use of the RADS framework proposed by [Zaorsky et al. Adv Rad Oncol. 2020. \(In Press\)](#)



The guidelines also have site specific approaches for curative intent for prostate, bladder, breast, lung, head and neck, cervical, endometrial, oesophagus, pancreas, rectal and anal cancers, as well as gliomas, meningiomas and spine tumours. These cover criteria for delay and mitigation strategies for each cancer site.

Additional guidelines are provided for Head and Neck OR Cervical cancers and lung cancer

The guidelines establish the criteria for assessing and classifying the radiotherapy adverse effect risk profile of breast cancer patients.

The guidelines also outline an approach to Palliative Treatment.

**Royal College of Radiologists (RCR). Coronavirus (COVID-19): cancer treatment documents**

**Country context:** UK

A repository of advisory documents and resources for cancer treatment during the coronavirus (COVID-19) pandemic for clinical teams managing cancer patients. These documents will be updated as new information is available. We will review them at least once a week to make sure they remain current. The resources are cancer sites-specific, including those related to cancers of the breast, head and neck, lung, prostate and lymphomas etc.

## **B. For patients and caregivers**

### **[CANSAs COVID-19 – What Cancer Patients Need to Know. 26 March 2020](#)**

**Country context:** South Africa

An info pack aimed at keeping cancer patients and survivors aware, healthy and safe during the COVID-19 pandemic.

### **[Macmillan Cancer Support. Cancer and coronavirus \(COVID-19\)](#)**

**Country context:** UK

This webpage provides some guidance specific to COVID-19 for cancer patients and their caregivers.

### **[St Jude Children’s Research Hospital. What Does COVID-19 Mean for Children with Cancer or Other Illnesses?](#)**

**Country context:** USA

This page highlights information on paediatric cancers and COVID-19 for parents and caregivers of children with cancer.

### **[Cancer Council. Information and support regarding cancer and COVID-19](#)**

**Country context:** Australia

A set of cancer-related COVID-19 information for cancer patients, survivors and their families.

### **[Food and Drug Administration \(FDA\). A Message to Patients with Cancer and Health Care Providers About COVID-19. March 2020.](#)**

**Country Context:** USA

A message to cancer patients on the possible impacts of COVID-19 on health services and ways in which those impacts can be minimized for cancer care and patients.

### **[National Cancer Institute \(NCI\). Coronavirus: What People with Cancer Should Know](#)**

**Country context:** USA

This webpage provides information on what cancer patients need to know about COVID-19 and their health.