



Cancer amid COVID-19

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Have the safety measures of the pandemic compromised cancer patient treatment?

by Eliya Farah, MSc. Public Health

As of June 8th, 2020, the COVID-19 pandemic has spread globally infecting around 7 million individuals and claiming more than 400,000 lives [1]. Due to fast-rising numbers of critically ill individuals with COVID-19, governments and health care systems worldwide have been re-allocating medical resources and delaying treatment for a range of other diseases that would usually require continuous medical attention all year long.

Globally, cancer is the second leading cause of death with an estimated 9.6 million deaths in 2018 [2]. Lately, continuing treatment activities for cancer patients during the pandemic has been a challenge to practicing physicians. **It is a war on two fronts.**

Patient-centered care at a hospital or clinic would mean compromising the well-being of cancer patients by increasing their risk of exposure to the virus. Their weakened immune system due to various immunosuppressive anticancer therapies (chemotherapy, radiation therapy, surgery, etc.) also puts them at a high risk of mortality from a COVID-19 infection [3].

What should clinicians do in such a situation? Continue or suspend treatment until the pandemic is controlled or even over? Many cancer patients also prefer to miss appointments for fear of exposure if they go to the hospital. There is no clear solution to this problem. For the time being, clinical guidelines have been adjusted based on expert opinion and consensus decisions by public health agencies and cancer treatment centres while systems or strategies to evaluate the impact of the epidemic on cancer care are put in place [4,5].

- Who needs treatment the most?
- Can the treatment be delayed for certain patients?

- What would the patient's outcome be if the typical course of treatment were to be deferred?
- What is the risk-benefit ratio of a treatment in some patients?

In some, delaying curative adjuvant chemotherapy can be considered depending on the anatomical site and stage, such as in colorectal cancer stage III, where chemotherapy can be safely delayed for up to 8 weeks [5]. In addition, delaying elective surgical interventions may be an option for others. A 2017 study showed that a 60-day delay for surgical intervention on patients diagnosed with breast cancer (stage I/II) was not associated with worse oncological outcomes or worse disease progression [6].

On the other hand, in other patients, delaying therapy or surgery could have serious repercussions on the patient's quality of life. In solid tumours such as lung cancer, pancreatic cancer, colon cancer, and high-grade lymphoma, proper timely treatment must be continued to prevent adverse disease progression [7].

A modelling analysis, done by the Institute of Cancer Research in the UK on pre-existing data from the Agency of Public Health England, showed that if the yearly 95,000 procedures to excise tumors were to be delayed three months, an estimated excess of 5,000 deaths can occur. Furthermore, a six-month delay in cancer removal procedures could double the excess deaths to reach 11,000 a year in the UK [8].

In the end, physicians must take deliberate educated decisions when it comes to canceling or delaying treatment and assess treatment related procedures and operations on an individual level to ensure the safety of patients pre- and post- treatment.

1. COVID-19 Dashboard by the Center for Systems Science and Engineering (CCSE) at John Hopkins University (JHU) <https://coronavirus.jhu.edu/map.html>.
2. Facts sheet. (2020). Retrieved 9 June 2020, from <https://www.who.int/news-room/fact-sheets/detail/cancer>.
3. Rubinstein et al., The COVID-19 and Cancer Consortium: A Collaborative Effort to Understand the Effects of COVID- 19 on Patients with Cancer, *Cancer Cell* (2020), <https://doi.org/10.1016/j.ccell.2020.04.018>
4. Cancer Care Ontario. (2020). Retrieved 9 June 2020, www.ontariohealth.ca/sites/ontariohealth/files/2020-04/Ontario%20Health%20Cancer%20Care%20Ontario%20COVID-19%20Supplemental%20Clinical%20Guidance%20for%20Patients%20with%20Cancer_29Mar20%20PDF.pdf
5. Al-Shamsi HO, Alhazzani W, Alhurairi A, et al. A Practical Approach to the Management of Cancer Patients During the Novel Coronavirus Disease 2019 (COVID-19) Pandemic: An International Collaborative Group [published online ahead of print, 2020 Apr 3]. *Oncologist*. 2020;10.1634/theoncologist.2020-0213. doi:10.1634/theoncologist.2020-0213
6. Mansfield SA, Abdel-Rasoul M, Terando AM, Agnese DM. Timing of Breast Cancer Surgery-How Much Does It Matter?. *Breast J*. 2017;23(4):444-451. doi:10.1111/tbj.12758
7. Al-Quteimat, O. M., & Amer, A. M. (2020). The Impact of the COVID-19 Pandemic on Cancer Patients. *American journal of clinical oncology*, 43(6), 452–455. <https://doi.org/10.1097/COC.0000000000000712>
8. Cancer surgery delays risk 'thousands' of deaths. (2020). Retrieved 9 June 2020, from <https://www.bbc.com/news/health-52722150>



The unintended consequences of the postponement of routine cancer screenings

by Rami Ali, MSc. Public Health

When the WHO announced the COVID-19 outbreak to be a pandemic, on March 11, 2020, many, especially patients, started pondering about the unintended impact of the outbreak control measures on deferrals and cancellations of cancer screening appointments. The main question on everyone's mind is "How to ensure that cancer patients can be diagnosed at an early stage?". A survey conducted by the Quebec Cancer Coalition asked 592 participants about the postponement or cancellation of scheduled appointments [1]. Nearly 69% of participants had their appointments postponed or cancelled. Around 36% and 15% stated that their appointment included a follow-up with their physician or an imaging test, respectively. Almost one third reported inability to set up a remote consultation with a professional during the month of March; the follow-up included physical test(s) or diagnostic imaging procedures, which cannot be performed over the telephone or a videoconference.

The study also found that 61% of participants reported that their health services have been modified in a way that left them feeling "abandoned" by their health providers. Indeed, missing crucial appointments that could have resulted in detecting tumors in patients at an early stage raises concerns and questions about how to mitigate such a risk. The Quebec Cancer Coalition made several recommendations, including:

- Raising public awareness that diseases and conditions other than COVID-19 continue to exist and pose a grave threat to public health;
- Encouraging health professionals to establish better communication with their patients, keeping them informed about the most current and relevant guidelines pertaining to their case;
- Establishing virtual options to offer mental-health services and support groups to help deal with any concerns or stress experienced by patients; and
- Referring cancer patients to oncology-specialized facilities that do not deal with COVID-19 patients in order to provide them with services that may otherwise elevate their risk of exposure to the virus if provided at hospitals.

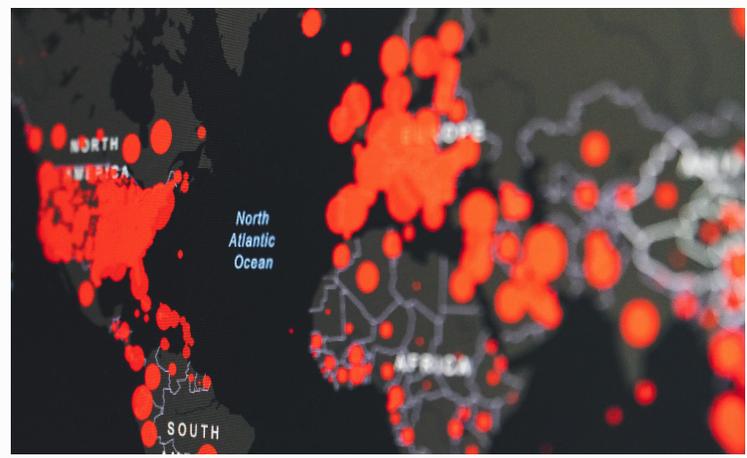
As the study has demonstrated, physicians need to consider the overall impact of delaying or cancelling regular screening procedures. Such decisions must be supported by the latest recommended guidelines. It is also important for physicians to reassure their patients that they are being cared for during these challenging times.

The global COVID-19 pandemic: measuring outcomes in cancer patients

by **Mariam El-Zein, PhD**

Quick fact-check. The evolving coronavirus disease 2019 (COVID-19) pandemic hits the world very fast. Health-care systems are unprepared to cope with the unprecedented scale of the pandemic. Strict interventions are implemented to curb the spread of the virus and avoid overwhelming health-care capacities. COVID-19 news and information change by the hour. We are all overwhelmed and justifiably fearful of getting the disease. Cancer patients are more vulnerable. We know little about the natural history of cancer patients who have COVID-19. We must turn to reliable, reputable sources.

In The Lancet, The COVID-19 and Cancer Consortium (CCC19) reported on a case series of 928 current and former cancer patients who had a laboratory-confirmed SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) infection from the USA, Canada and Spain [1]. Accrual of de-identified data on these patients in the CCC19 registry database started on March 17, 2020; they were followed until May 7, 2020. Median patient age was 66 years, 50% of patients were male, 45% were in remission, and 43% had active cancer, with breast (21%) and prostate (16%) cancers being the most prevalent. The most common presenting symptoms of COVID-19 were fever (64%), cough (61%), fatigue or malaise (43%), and dyspnoea (41%), whereas 4% of patients were asymptomatic. Hydroxychloroquine was given to 10% of patients, azithromycin to another 10%, and a combination of these drugs to 20%.



A total of 121 (13%) patients died within 30 days of being diagnosed with COVID-19. Factors associated with mortality were increasing age, male sex, smoking status (former vs never), number of comorbidities (2 vs none; 3 vs none, ≥ 4 vs none), Eastern Cooperative Oncology Group performance status (2 vs 0 or 1; 3 or 4 vs 0 or 1), active cancer (progressing vs remission), and receipt of azithromycin in addition to Hydroxychloroquine (vs treatment with neither). On the other hand, race and ethnicity, obesity, type of malignancy, type and recency of anticancer therapy, and recent surgery were not associated with mortality. Residence in Canada or the US-Midwest was associated with decreased mortality compared with residence in the US-Northeast. Although cancer patients with concurrent COVID-19 diagnoses appear to be at an increased risk of mortality, a larger sample size and longer follow-up time are required to better understand the effect of SARS-CoV-2 on outcomes in these cancer patients. After all, it is only a matter of time before “Everything will be Okay”. Meanwhile, continued research is warranted to understand how dangerous the coronavirus is for cancer patients and quantify the associated death rates.

1. Kuderer NM, Choueiri TK, Shah DP, Shyr Y, Rubinstein SM, Rivera DR, Shete S et al. Clinical Impact of COVID-19 on Patients With Cancer (CCC19): A Cohort Study. *Lancet*. 2020;S0140-6736(20)31187-9. doi:10.1016/S0140-6736(20)31187-9.