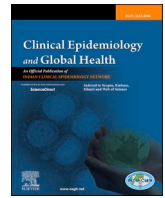




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## Commentary

## Searching for answers: Cancer care during the COVID pandemic

## ARTICLE INFO

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## ABSTRACT

The unprecedented novel coronavirus disease pandemic has wreaked havoc on healthcare systems worldwide and raised myriads of questions. The delivery of cancer care is an essential service that cannot take a backseat, even amid a global pandemic. Oncology involves the disciplines of surgical oncology, radiotherapy, chemotherapy, and palliative care which are all affected, including the possible impact of the pandemic on the mental health of patients and healthcare workers alike. This commentary attempted to review these questions in light of the best available evidence. The delivery of cancer care is generally safe when routine safety precautions are followed, and decisions are based on rational scheduling and logistical prioritisation. The impact on the mental health is profound that needs to be addressed with adequate avenues. Teleoncology is a reasonable alternative, whenever applicable. Evidence-based decision making should be the standard of care, and multidisciplinary management decisions are as indispensable as ever.

## 1. Introduction

At the advent of the year 2020, nobody could have predicted the global affection of the novel coronavirus disease (COVID-19) pandemic, and yet we are no better in predicting the end of this peril now than ever. The prime objective of healthcare facilities has been shifted to the containment of the spread of the virus and the care of infected patients. One can only imagine the possible impact on patients already suffering from chronic ailments such as cancer. The COVID-19 pandemic has dwindled cancer care globally. Data from across the world has revealed a significant reduction in cancer screening, diagnosis, and management, including surgery, radiotherapy, chemotherapy, and palliative end-of-life care. For instance, a delay of about two months in a two week period for investigatory referral results in an estimated loss of up to 0.7 life-years per referred patient, depending on the age of the patient and the type of tumour.<sup>1,2</sup> Generally speaking, the level of hindrance has been correlated with the unfolding of the COVID-19 outbreak worldwide.<sup>3</sup>

The broad disciplines of surgical oncology, radiotherapy, medical oncology, and palliative care are the four cornerstones of the delivery of oncological care. It is only normal to apprehend about the effectiveness and optimisation of their delivery at a time of such global uncertainty. Cancer care cannot wait until COVID-19 takes a backseat. The essence of management of cancer is timely intervention and quality of care, both of which are profoundly affected by the current state of healthcare facilities across the globe that stand overwhelmed due to COVID-19. Delivering oncology care during such a time has become extremely challenging, with patients finding it difficult to prioritise their treatments and in turn become even more vulnerable. At such a critical juncture, a lot of pertinent questions arise in the minds of patients and clinicians alike. We reviewed the relevant literature and tried to find answers with the best-supporting evidence.

## 2. Does cancer make patients more prone to COVID-19?

It has been confirmed that patients living with non-communicable diseases such as cancer, diabetes, cardiovascular diseases, and chronic respiratory or kidney ailments are more prone to COVID-19-related severe illness and death.<sup>3,4</sup> Nearly, 80% of infected patients who die, have more than one of these comorbidity comorbidities.<sup>5</sup>

## 3. Is cancer treatment safe during COVID-19?

During the emergence of this outbreak, there were some hypotheses and speculations about the safety of cancer-directed treatment.<sup>6</sup> However, studies have now conclusively proven that cancer-directed treatment is safe, and treatment must not be delayed any further during this pandemic.<sup>7</sup> According to a record from the Memorial Sloan Kettering Centre, 20% of cancer patients who tested positive for the novel coronavirus developed severe respiratory symptoms, and 12% of them died due to COVID-19. Interestingly, chemotherapy and major surgery within 30 days, did not contribute to these worse outcomes in their cohort.<sup>7</sup>

## 4. What will be the consequences of delay in cancer surgeries from a health care facility perspective?

Postponing cancer surgery will surely increase the likelihood of disease progression and incidence of metastatic disease while decreasing the life expectancy and survival.<sup>8</sup> It has been estimated that there is a loss of both average life-years gained (LYG), and resource-adjusted life-years gained (RALYGs) per patient if cancer surgeries are delayed by three months, which decreases further if the delay is six months (an average loss of 0.97/2.19 in LYGs and 2.12/1.97 in RALYGs per patient respectively). Therefore, timely intervention is paramount.<sup>9</sup>

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## 5. Are surgeons themselves protected with adequate personal protective equipment?

There has been a global shortage of personal protective equipment and N95 respirators, and the problem is worse in developing countries like India.<sup>10</sup> Combined with a dearth of testing, PPE assumes higher importance in such conditions. The CDC recommends the use of N95 respirators for high-risk procedures,<sup>11</sup> however, there may be a geographical difference in availability between developing and developed nations.<sup>10,12</sup> The problem may be exaggerated in non-academic institutions or smaller cities and hospitals without an adequate budget.

## 6. Is COVID testing included routinely as part of pre-operative screening?

Routine pre-surgical work-up now includes a screening questionnaire and reverse-transcription polymerase chain reaction (RT-PCR) on the oropharyngeal and nasopharyngeal swabs to detect the novel coronavirus (SARS-CoV2) within a reasonable time before elective surgery to mitigate the risk of infections to patients, attendants, and healthcare workers.<sup>10</sup> Additionally, using a high resolution computed tomography of the thorax (HRCT thorax) may help augment the screening procedure given false-negative results of the RT-PCR test.<sup>13,14</sup> Emergency procedures may be an exception to these, however in such cases where the patient's life may depend on an instantaneous decision, screening with a pre-tested questionnaire is usually done.

## 7. What is the optimal duration to surgery post recovery from COVID infection?

Data from the COVIDSurg-Cancer study suggests that patients with a positive swab for SARS-CoV2 should have their surgery delayed for four weeks from the date of notification. Delaying surgery for four weeks is associated with significantly reduced pulmonary complications and mortality as compared to early surgery. This data is, however, limited by the small sample size and the risk of selection bias.<sup>15</sup>

## 8. Is minimally invasive surgery (laparoscopic and robotic) safe?

During the initial phase of the pandemic, there were some speculations about the safety of minimally invasive surgery (MIS). Various surgical societies reviewed the literature and gave their guidelines and recommendations. At present, it suffices to say that avoiding MIS is not evidence-based and laparoscopy offers key advantages like a reduced duration of hospital stay that may be relevant in the current situation.<sup>16–19</sup>

## 9. What is the possible impact on receiving radiotherapy and chemotherapy?

While fractionated radiotherapy treatments typically last a few weeks, yet each treatment fraction is often delivered within a few minutes, which may be associated with minimal exposure if adequate precautions are taken. Adequate measures like the use of hypofractionation and the avoidance of advanced techniques for planning may be used to reduce exposure further.<sup>20,21</sup> As for chemotherapy, logistics need to be incorporated, and practical solutions need to be undertaken. For example, the use of oral chemotherapeutic agents and metronomic scheduling may be associated with minimising the exposure by reducing hospitalisation.<sup>22</sup> Nevertheless, prioritisation of patients and multidisciplinary team decisions should form the backbone with patients and attendants included as far as possible in a shared decision-making approach. Society guidelines exist to guide clinicians during this challenging time which should be suitably modified to suit the local needs.<sup>23,24</sup>

## 10. What is the situation for palliative or end-of-life care in cancer patients?

Palliative care is a necessity during a pandemic, as the support systems of a patient may be lacking at this time. The outreach of palliative care thus is even more critical now, as people living with advanced cancer may lack family or financial support, and may find it difficult to travel to specialised oncology centres due to logistical reasons. Psychosocial care and integrated planning and resource allocation are necessary.<sup>25,26</sup> Healthcare workers can be trained further to deal with effective symptom management and alternative delivery methods for bereavement support for family members who are likely to be separated from the patient at the moment of death.<sup>27</sup> Palliative care should focus on the early but safe discharge of a patient from institutional care, wherever possible so that the patient can stay with loved ones at the comfort of his home.<sup>26</sup>

## 11. Will the current numbers of oncologists and care providers in the existing system be able to cope with the backlog of cancer patients if treatment services are now made fully operational?

Globally, in pre-COVID times, the cancer-managing units have been overburdened with the number of patients, more so in developing countries. With the diversion of hospital resources and oncology professionals towards COVID-19, cancer cases are piling up every day. The requirement of cancer care facilities and resources is going to be unimaginably high to triage and manage these backlogs along with newly detected cancer cases in the coming months.<sup>9</sup> This exceptionally challenging situation needs to be addressed urgently to avoid psychological distress to the cancer patients, medical team burnout, and to ensure the long-term survival of our patients. Moreover, countries should keep cancer in their national COVID-19 preparedness and response plans.<sup>3</sup>

## 12. Is teleoncology a viable alternative?

During a pandemic where social interactions should be limited, telemedicine consultations can be a valuable asset to both healthcare providers and patients.<sup>28</sup> However, this needs to be based on a risk-adapted model; for instance, patients who have completed treatment and are on follow-up can be safely asked to continue teleconsultations for the foreseeable future until the crisis subsides, while patients require surgery or radio-chemotherapy need prioritisation and would probably need to be seen in person at least occasionally. For patients receiving chemotherapy at regular intervals, a possible solution can be that the patient is seen in person at the initial visit and then again after a few cycles, and the intermediate reporting can be done using telemedicine. The use of social media is promising and can be used to transmit pictures of common problems.<sup>29</sup> Judicious use of teleoncology thus can provide personalised care and mitigate infections.<sup>30</sup>

## 13. What is the impact of the COVID-19 pandemic on cancer patient's psychological health?

Cancer patients are suffering from mental trauma during this pandemic time. It is well known that the diagnosis of cancer is associated with a tremendous psychological impact that turns the life of a patient upside down with a constant threat to their survival.<sup>31</sup> Data from China and Italy suggest that COVID-19 has caused a further increase in the amount of stress, anxiety, depression, and insomnia, among others.<sup>32–35</sup>

## 14. What is the probable impact of COVID-19 on the physician's mental health?

Similar to patients, physicians are also prone to immense mental stress during a time of crisis like the current one which is only worsened by excessive work hours, the lack of adequate recess or breaks, and the

continuous need to be alert in a high-risk environment. In a CDC morbidity report published in August 2020, nearly one in four essential workers (22%) had seriously considered suicide in the last 30 days in addition to worsening of mental health, suicide ideation, or increased substance abuse.<sup>36</sup>

## 15. Conclusion

The management of cancer is generally safe even during the current pandemic, and adequate precautions and checks are in place. The thrust of oncology care in the current scenario should focus on holistic needs alongside rational policymaking and planning based on local guidelines while being flexible enough to incorporate modification according to the needs in order to maximise the benefit to patients while minimising the risk of infection.

## Author statement

Shiv Rajan: Conceptualization, Methodology, Formal analysis, Data curation, Writing – original draft, Writing – review & editing. Deep Chakrabarti: Conceptualization, Methodology, Formal analysis, Data curation, Writing – original draft, Writing – review & editing. Naseem Akhtar: Formal analysis, Data curation, Writing – original draft, Writing – review & editing, Supervision. Vijay Kumar: Formal analysis, Data curation, Writing – original draft, Writing – review & editing, Supervision. Mranalini Verma: Formal analysis, Data curation, Writing – original draft, Writing – review & editing.

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