

Cancer Screening during COVID-19 Pandemic

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Coronaviruses are enveloped RNA viruses that are generally pathogenic to mammals and birds which cause mild upper respiratory tract infections in humans. Coronavirus-19 (COVID-19) was first detected in Wuhan, China, in December 2019. This virus is highly contagious, and within few months, it has spread to most of the countries. On March 11, 2020, the World Health Organization (WHO) declared COVID-19 as a pandemic associated with unprecedented global health crisis. COVID-19 has severely impacted public life, global economy, and healthcare.

With new challenges erupting during COVID-19 pandemic, many of the ongoing efforts related to cancer care, including early cancer detection services, are going to have a negative impact. The global population and health systems are paying more attention in tackling this pandemic. This global emergency has imposed a state of partial to complete lockdown in many parts of the world, which has led to a break in the global supply chain of many medical equipment and essential healthcare services.

The increasing morbidity and mortality due to COVID-19 are the biggest setback. The WHO report revealed the mortality rate to be between 3% and 4%.^[1] However, it seems that the mortality statistics are underestimated. Italy is having a COVID-19 mortality rate of 14.2%.^[2] COVID-19 is a highly contagious disease with recent reproductive number estimates in the range of 2.0–3.1 (95% confidence interval 2.39–4.13). All the estimates of transmission indicate toward self-sustaining human-to-human transmission as the only plausible explanation for the magnitude of on-going

outbreak.^[3] COVID-19 infection has high mortality, and as on May 20, 2020, a total of 4,789,205 confirmed cases and 3,18,789 deaths were reported worldwide.^[2]

Should We Do Cancer Screening during COVID-19 Pandemic?

Only certain cancers of oral, breast, cervical, lung, and colon have evidence of reduction in cancer-related mortality through screening. Few developed countries in the western hemisphere have temporarily put hold to cancer screening.

Cancer epidemiologist and public health authorities need to establish an effective, evidence-based guideline on how to approach cancer screening as an essential element of comprehensive cancer control during such pandemic. In any such guideline or policy, the following points should be considered for cancer screening during COVID-19 pandemic:

1. Global healthcare systems are facing shortage of personal protective equipment (PPE). Since the onset of the coronavirus pandemic, there has been an increased use of masks and sanitizers, resulting in exhaustion of resources. A shortage of PPE endangers health workers worldwide. Lack of PPE is a major cause of concern among medical personnel, especially in lower middle-income countries, which is densely populated and without a robust healthcare infrastructure. Cancer screening will require more of PPE not only for health workers but also for the population to be screened. This will put additional burden on available resources, which raises concerns of cost-effectiveness of screening during the current scenario

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- Maintaining social distancing during community-based screening camps will be a challenging task. This will require additional workforce which is already facing shortage globally. As COVID-19 is highly contagious, these individuals who present for routine screening, if they get infected, they are likely to infect more people around them, thus defeating the purpose of providing benefit through cancer screening
- Risk–benefit analysis of cancer screening during COVID-19 pandemic: A study from Western European countries have shown that a reduction in all-cause mortality by cancer screening was just 1%–3% deaths (per 100,000 person-years) annually.^[4] The COVID-19-related mortality in these countries is as high as 47.4 and 42.3 deaths per 100,000 in Spain and Italy, respectively, in a period of <6 months.^[5] Most of the countries have yet to achieve the peak of transmission where the mortality rates are further likely to increase. A comprehensive evaluation of risk and benefit seems necessary in making administrative decision for screening of cancer.

Conclusion

COVID-19 is likely to have higher number of deaths compared to the deaths that can be prevented through cancer screening. By inviting apparently asymptomatic individuals for screening will potentially expose them to COVID-19, which will do more harm than benefit. The PPE which are already in shortage needs to be judiciously used. Postponing routine cancer screenings, at this time, will mitigate risk of exposure to infection for both the population and the healthcare team and will conserve limited health

system resources. If patient is having sign and symptoms suggestive of cancer, he/she should visit the healthcare facility immediately.

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Conflicts of interest

There are no conflicts of interest.

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