

Implementation of Early Detection Services for Cancer in India During COVID-19 Pandemic

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Abstract

Early detection of cancer greatly increases the chances of better survival. The emergence of COVID-19 pandemic has disrupted several essential health services globally and early detection of cancer services is one of them. The routine cancer screenings have plummeted in many developed countries since the crisis. India has highest estimated lip and oral cavity cancer cases worldwide (119,992, 33.8%) and the second highest number of breast (162,468, 17.8%) and cervix uteri (96,922, 30.7%) cancers in Asian sub-continent. Not only India has high burden of cancer, but the majority (75-80%) of patients have advanced disease at the time of diagnosis. Hence it is imperative that early detection services should be kept functional at out-patient settings so that at least the patients coming to hospitals with early signs and symptoms can be diagnosed as early as possible. Strategies need to be adopted to continue early detection services and ensure safety of patients and health care workers from COVID-19 transmission.

Keywords

cancer control, COVID-19, screening, early diagnosis

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Early detection of cancer greatly increases the chances of successful treatment and better survival. Recognizing possible warning signs of cancer and taking prompt action leads to early diagnosis. While improving early diagnosis generally improves outcomes, not all cancer types benefit equally. Common cancers, that can be diagnosed at early stages from signs and symptoms and for which early treatment is known to improve the outcomes are generally going to benefit most from the early diagnosis. Examples include breast, cervical, colorectal and oral cancers.^{1,2}

The emergence of the disease COVID-19 has resulted in an unprecedented global health crisis. On 30th January 2020, the World Health Organization declared it as a public health emergency of international concern.³ The pandemic has spread exponentially and unpredictably across the world devastating economy and global health care services.⁴ By 27th July 2020, the numbers of global COVID-19 confirmed cases and deaths have exceeded 16,114,449 and 646, 641 respectively.⁵ Countries have adopted many preventive strategies like social

distancing, lockdowns, and quarantine of suspected cases intending to minimize community spread of the disease. COVID-19 pandemic has disrupted several essential health services globally and early detection of cancer services is one of them. The routine cancer screenings have plummeted in many developed countries since the crisis.⁶

As per Global Cancer Observatory (GLOBOCAN) 2018, India alone has contributed to 1,157,294 (13.2%) of total cancer cases of the Asian continent (8,750,9321 cases) with more than

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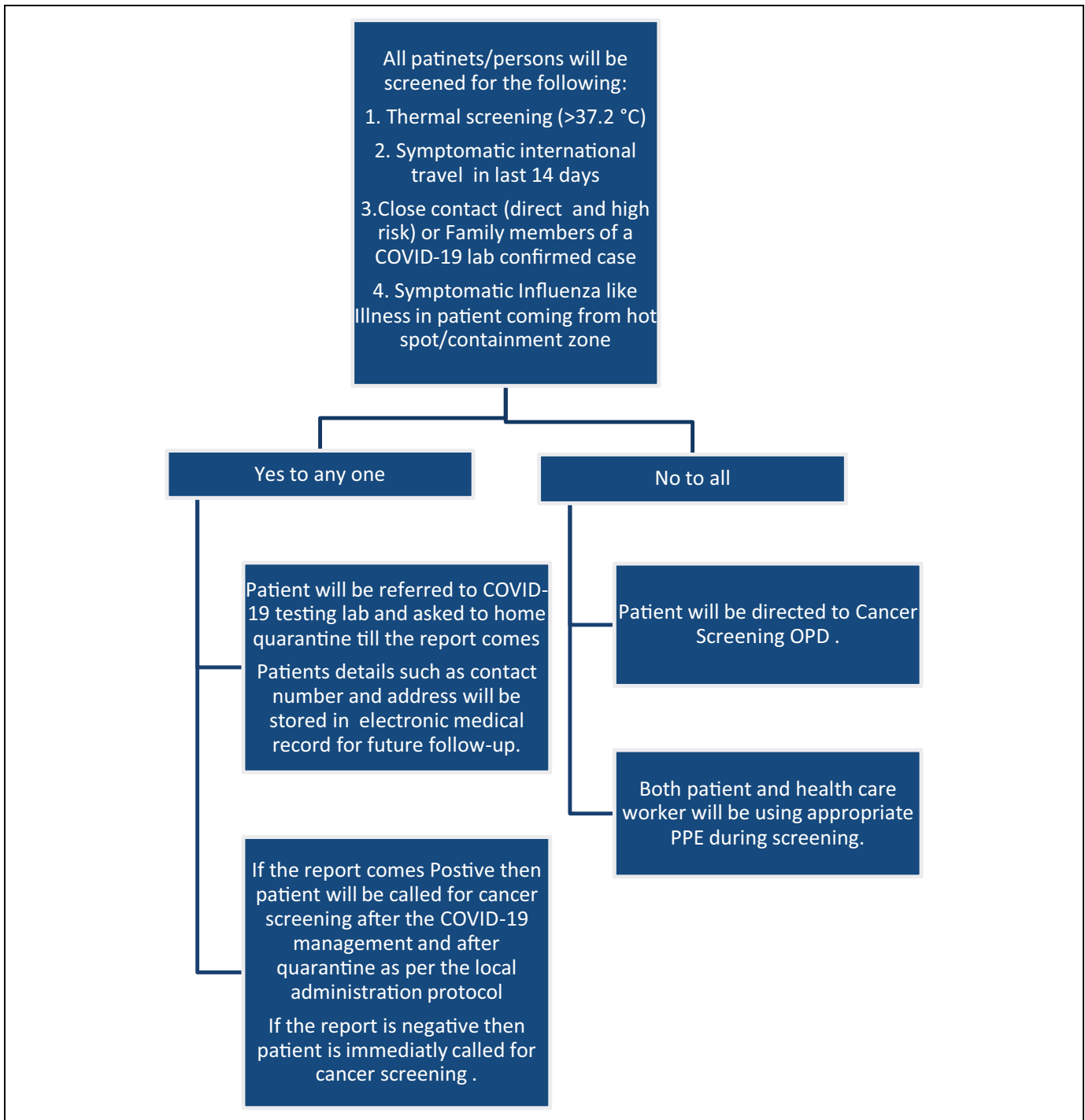


Figure 1. Flowchart for conducting early detection of cancer services in a hospital.

one-third being oral, breast and cervical cancer cases. India has the highest estimated lip and oral cavity cancer cases worldwide (119,992, 33.8%) and the second-highest number of the breast (162,468, 17.8%) and cervix uteri (96,922, 30.7%) cancers in Asian sub-continent.⁷ Not only India has a high burden of cancer, but the majority (75-80%) of patients have advanced disease (Stage 3-4) at the time of diagnosis. Rural areas of India (69% of the total population) have an even worse situation, where

patients and families have to travel long distances to reach a tertiary care oncology center.⁸ Delayed detection of cases leads to poor survival rates. 5-years relative survival rate for oral cavity, breast and cervical cancer from Indian cancer registries cases is as low as 37.0%, 51.4%, 46.1% respectively.⁹

The Indian government had launched an operational framework for the country's first national cancer screening program in 2016 under the National Programme for Prevention and

Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS). As per the guidelines, there will be mandatory screening for oral, breast, and cervical cancer in people over the age of 30 in 100 districts of India before the program expands to other areas.^{10,11}

On 19th May 2020, due to the COVID-19 pandemic impact, the Government of India has currently suspended the door-to-door screening of people above 30 years of age as part of the national program based on the risk associated oral cavity examination. However, emergency cases requiring a biopsy will be addressed as per the protocol. These are temporary guidelines and subject to revision depending on change in the overall situation.¹² Thereby, the early detection of cancer services will primarily be restricted now to out-patient settings in primary, secondary and tertiary care centers. To ensure that patients can identify early signs and symptoms of common cancers there is a dire need of health education campaigns for self-examination by patients for early signs and symptoms of cancers such as white patch (leukoplakia) / red patch (erythroplakia)/ non-healing ulcer in mouth and difficulty in opening of the mouth, lumps in the breast/nipple discharge from the breast, post-menopausal/inter-menstrual/ sexual contact bleeding per vagina or excess foul-smelling discharge per vagina. Tobacco Quitline services in India and other health portals and social platforms can be utilized for spreading the information which may enable the patient to visit hospitals timely when they detect any signs/symptoms through self-examination.

Even before COVID-19 pandemic, population-based screening was confined to very few geographical regions in India due to various limitations. Majority of patients were diagnosed when they visit hospital out-patient settings with early signs and symptoms.¹³ If, early detection of cancer at outpatient settings of hospital will also be halted during current pandemic, then the already poor graph of late detection and survival of cancer patients will likely to worsen further. Hence is it imperative that early detection services should be kept functional at out-patient settings so that at least the patients coming to hospitals with early signs and symptoms can be diagnosed as early as possible.

Following strategies can be adopted when continuing early detection services at out-patient settings:

1. Social distancing and limiting only 1 attendant per patient inside the hospital
2. Arrange a simple screening algorithm or questionnaire for early detection of potentially COVID-19 infectious persons.¹⁴
3. Travel advisory posters can be displayed to facilitate the screening process by prompting patients to be proactive by self-reporting travel history
4. Usage of adequate personal protective equipment (PPE) by both health care workers and patients during their visit.
5. Strictly adhering to hospital infectious control policies and standard operating procedure for infection prevention and containment.
6. Considering web-based/ telemedicine for outpatients if resources are available. This will minimize

bidirectional exposure to coronavirus infection of both the patient and the healthcare team.

7. Prevention of long-distance travel of patients for early detections services especially for rural-based patients by capacity building of health-care manpower and resources that can perform early detection of cancer at peripheral rural health centers.

To facilitate the early detection of cancer services in a hospital there needs to be the establishment of the following:

1. Screening camps¹⁵ outside the hospital for the screening of suspected COVID-19 patients as per the flow-chart (Figure 1),
2. Creating a fever clinic¹⁵ where all suspected patients and health care workers can be assessed,
3. Creating isolation wards¹⁵ and COVID-19 diagnostic set up in the hospital wherever possible,
4. If COVID-19 diagnostic and management facility is not available in the hospital then ensuring safe and prompt referral of all suspected patients and health care staff to COVID-19 management hospitals,
5. The information of the patients such as their contact number and place of residence can be collected and stored in their electronic medical record. In this way a database of patients who are eligible for cancer screening can be maintained and through audio/video communication can be called for screening depending on their COVID-19 status and their signs and symptoms. The database can be linked with on-going cancer registry programs of defined geographical population.


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