



Association of Radiation Oncologists of India

COVID-19 PANDEMIC : RADIOTHERAPY PRECAUTIONS & PREPAREDNESS

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The 2019–20 severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is caused by infection with the novel coronavirus (COVID-19) and was first identified in Wuhan, Hubei, China in December 2019. The World Health Organization (WHO) declared it a public health emergency of international concern (PHEIC) on 30 January 2020; subsequently, the outbreak was recognized as a pandemic on 11 March 2020.

In India, the first case of the 2019–20 coronavirus pandemic was reported on 30 January 2020 and as of 21 March 2020, there are a total of 258 cases and 4 deaths in the country according to the Ministry of Health and Family Welfare (MOHFW).

The Epidemic Diseases Act, 1897 has been invoked in many states and union territories as a consequence educational institutions and commercial establishments have been shut down. The MOHFW has already provided advisory for hospitals and medical education institutions in the country to tackle the unprecedented increase in patients infected with COVID 19.

Even at such a challenging time, as medical professionals, our primary responsibility remains to provide optimal care to our patients. Of equal importance, is to ensure the safety and protection of all the health care workers involved.

Institutional and departmental policies, organizational procedures may need to be reviewed to ensure this twin objective of optimizing patient care without compromising on safety to the health care provider. We provide a list of precautionary measures that can be implemented at all radiotherapy centers:

PATIENT CARE:

All the general public safety measures recommended by national and international bodies like avoidance of crowded places (including social distancing), wearing of surgical masks in public spaces, following hand hygiene are equally applicable to cancer patients.

OUTPATIENT DEPARTMENT:

- Patients should be screened and triaged before they enter the hospital premise. Patients with infective symptoms can be managed according to existing institutional directives, including wearing personal protective equipment (PPE), isolation etc.
- Patients should also be discouraged to come to the health care facility with more than one family member, unless necessary (restricted to a wheelchair or trolley, pediatric patient, etc.)
- Patients who have visited the hospital for routine follow up can be advised to reschedule their appointment to a later date or can be offered telephonic/ video consultation (see below).
- Patients who are scheduled to reach the hospital for follow up can be identified from hospital records and contacted telephonically. In a study evaluating whether telephonic follow-up offers a convenient and equivalent alternative to physical examination of radically treated lung cancer patients, telephonic FU proved to be feasible and promising in radically treated lung cancer patients. This remote consultation can also be extended to patients who seek expert opinion through online portals.
- By maintaining a network of radiation oncology professionals and by liaising with them, patients can be appropriately referred to an oncology center close to their place of residence to avoid traveling long distances.
- Patients can be provided with referral letters for treatment electronically through mail / online portal.
- During out-patients' (OP) consultation, a minimum 1m distance may be maintained.
- Keeping up with punctuality for appointment and consultation timings will aid in the decongestion of the OPD.
- Invasive follow-up investigations may be postponed/avoided especially, if not planned to be acted upon immediately.

RT TREATMENT:

- Patients due for radiotherapy treatment simulation and starting can also be triaged and prioritized based on their diagnosis, prognosis, and urgency for initiating treatment.
- Hypo-fractionation schedules have proven to be beneficial in many clinical scenarios (breast, prostate, lung cancer) and should be pursued where appropriate.
- Palliative radiotherapy treatment for symptomatic relief can be delivered in a single fraction or weekly once regimens.
- Patients with infective symptoms, but tested negative for COVID-19 or patients having cough/dyspnea due to existing illness, may be allowed to continue treatment with adequate protective equipment.
- In patients with suspected or proven COVID-19 infection and who are symptomatic treatment may be deferred until resolution or till they are deemed non-contagious by local health bodies.
- Patients with suspected or proven COVID-19 infection but who are asymptomatic may also be deferred treatment until their resolution or till they are deemed non-contagious by local health bodies.
- In selected patients (successfully treated or asymptomatic) requiring prompt initiation or continuation of radiotherapy, treatment may be allowed after observing all the necessary precautions.
- The decision to use or defer concurrent therapies like chemotherapy/ targeted and immunotherapies should also be considered based on the risk-benefit ratio, for a particular patient. Issues of age and the presence of co-morbidities are significant considerations.
- Similar precautions can be extended to brachytherapy treatments.

MACHINE AREA:

- Appointments of patients on treatment can be staggered throughout the day to avoid congestion at the machine area.
- Review of patients on treatment can be done while they are awaiting treatment or telephonically to reduce footfalls in the out-patient department and also to reduce the thoroughfare through other areas of the hospital.

- On-board imaging may be minimized to reduce treatment time. If at all Image guidance has to be done, the presence of consultants/physicians at the machine console may hasten the image-guided procedures.
- If required RTTs can also be empowered to execute a few of these procedures on their own, in case of shortage of staffs, based on their training and/ or under remote supervision.
- In case of availability, infected patients may be treated on a separate machine/ or in a separate time slot with all necessary precautions for the technologists and other care providers, to minimize the number of personnel exposed.
- Patients may be distributed on all available machines to reduce overcrowding.
- Credible updates and information related to COVID-19 infection, and its mode of spread, etc. can be displayed/ broadcast in patient waiting for areas to disseminate awareness.

INPATIENT CARE:

- Routine admissions (for insurance / cashless facilities) can be suspended.
- In patients requiring in-patient care, adequate precautionary measures should be strictly observed, especially if the patient is elderly, frail, or in the presence of multiple/uncontrolled co-morbidities.
- Patients who are stable and not in need of in-patient care should be discharged at the earliest.
- Wards should mobilize additional resources including masks, gloves, and other PPE.
- All doctors, nurses, and support staff should be mobilized and trained in infection prevention and control practices.
- Overcrowding is to be avoided. Routine Visiting hours by relatives may be suspended
- In centers without adequate staff / supportive care, patients may be referred to higher/ dedicated centers.
- For proven cases, a separate area of the hospital should be identified for admission and isolation, so that the support of uninvolved medical and other hospital staff, thereby the exposure can be limited.

STAFF & ADMINISTRATIVE ISSUES :

High-risk individuals, especially those with uncontrolled hypertension, diabetes mellitus, pregnant individuals, or patients with pulmonary conditions should be identified and advised to stay away from areas of direct exposure or asked to proceed on leave. Such individuals can still contribute significantly by engaging in telephonic consults, making rotas for staff, preparing work-related documents, and other administrative activities.

The number of physicians, technologists, physicists can be modulated such that the numbers working can be reduced to at least one third by modifying their shifts, work-hours; this would lead to the creation of a reserve workforce without decreasing the working hours or affecting patient treatment.

Academic events, activities may be suspended till the resolution of the pandemic.

It is important that all staff realize the importance of revealing their personal, travel, and contact history to be able to meaningfully control contact and exposure and to keep in mind that all exposure to the virus will not happen at work but may also occur in social circles, during travel to work, etc.

All measures and precautions should be reviewed and revised regularly by the professionals involved as the pandemic continues to evolve.

Constant communication with patients and staff involved regarding policy changes and updates is of paramount importance to avoid panic and apprehension. The key to controlling the spread of the pandemic lies in being aware, alert, and taking appropriate, timely action.

The radiation oncology community in India stands in solidarity with the various efforts to fight this deadly viral infection.