

## Impact of COVID-19 on Medical Physics

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### Abstract

To deliver a series of references for other Medical Physics surveys to follow in order to provide operational radiation therapy treatments during the COVID-19 pandemic. We considered our entire Radiation Oncology organization to identify a series of workflows and strategy changes that we applied during the epidemic that produced more operative practices during this time.

#### Keywords

Medical physics; COVID-19; Radiation oncology

## Introduction

The goal of this article is to discuss approaches for medical physicists to help minimize this hazard for radiation oncology patients and staff to an as-low-as-reasonably attainable level during this crisis. The COVID-19 pandemic is a rapidly changing situation; therefore, our proposals are neither complete nor perfect, and each medical physics exercise should follow federal, state, local, and institutional direction first and foremost. This evaluation is not meant to be a guideline or task group report. Importantly, we also discuss how to tactically plan for an increase in patient treatment volume as the quarantine efforts are climbed back after each peak of COVID-19 cases has subsided [1,2].

Our division's scope and size make us an ideal testing ground for best applies in radiation oncology. Notably, when the World Health Organization (WHO) stated the global pandemic on March 11, 2020, our institution had already applied a contagion screening program, constrained access and entry into our campus, and begun prohibition patients from infection hotspot locations. To limit the spread of COVID-19 within a treatment center, the time of exposure to possibly contaminated surfaces and people should be reduced, staff and patients should maintain at least 6 feet of space from others, and everyone should wear the proper PPE to shield against pathogens. Over the course of this pandemic, physicists should wear the required

PPE in position with Centers for Disease Regulator and Preclusion (CDRR) rules and as provided by their medical centers. Inappropriately, a laboratory coat can carry bacteria and viruses. Therefore; many physicists at our center now willingly wear scrubs, which are detached at the end of each shift to help guard their families and others. There are some operations like imaging in radiation oncology, Magnetic resonance linac operation, Stereotactic and total skin and body treatments, Gamma knife radiosurgery, Brachytherapy etc. are also followed some strategy to control the impact of the COVID on medical physics [2-5].

## Conclusion

We recognized a structured list of several recommendations that can help other Medical Physics practices overcome the challenges complicated in delivering high quality radiotherapy facilities during this pandemic. Due to the scope of our services, we have gained ability in dealing with the rapidly changing pandemic effects on our clinical practice. Our paper provides a resource to other Medical Physics practices in search of workflows that have been strong during these hard times.

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