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Editorial

## Indian Journal of Musculoskeletal Radiology



## Post COVID-19 surge: Are we prepared for the road to recovery?

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Received : 01 December 2020 Accepted : 06 December 2020 Published : 22 December 2020

DOI 10.25259/IJMSR\_71\_2020

**Quick Response Code:** 



The current COVID-19 pandemic has significantly affected lives of medical professionals and of the people dependent on the health-care services. Newer concepts are continuously emerging not only in the way the pandemic is being handled across the globe but also in the management of existing patients. As soon as the restrictions are relaxed, there is an anticipated increase in the workload of the radiology examinations and procedures which were put on hold at the peak of the pandemic. This is likely to affect mental health of the radiology professionals adding to their stress and burnout, spiraling further into far reaching consequences of patient safety.

With high patient volumes, the managerial staff is likely to push the case for radiology services to *deliver more with less*. This could mean relative staffing discrepancies, extra shifts, increased technology, and extra equipment to meet this need; while fewer opportunities for training the staff on new equipment, processes, or new initiatives. All these factors, put together, could end up with increased risk of human errors, miscommunication, and patient safety issues in a frenzied and disorganized work environment.

The **RSNA COVID-19 task force** guidelines<sup>[1]</sup>, addressing post-COVID surge radiology preparedness, were issued on May 6, 2020. These guidelines are to come into force if there is a sustained decrease in the new COVID-19 cases (e.g., 14 days) in terms of admissions and presentations along with availability of adequate health care resources including sanitizing material and personal protective equipment (PPE). The resumption of services would also depend on the institutional and regional policies.

As per these guidelines, there should be a slow ramp up of radiology services with the ultimate goal of preventing increased staff and patient exposure whilst regaining public confidence. There should be adequate gap between imaging appointments to allow for social distancing and also account for additional time for room and equipment cleaning procedures. To allow for adequate spacing, the radiology services are likely to have extended hours in the evenings and over the weekends. In outpatient locations with ample convenient parking space, **a pull workflow** may be implemented. This entails patient check-ins remotely from the safety of their car either by phone, text, or phone app. The patients can thereafter wait in the car until the radiology services are ready to perform their procedure. To limit over-the-counter staff and patient interaction, remote preregistration procedures are to be employed. Accompanying visitors are to be prohibited except in case where a single family member/caretaker is needed for ambulation. To conserve PPE and limit the potential exposure, patients can be encouraged to use their own personal cloth masks. Adequate supply of hand sanitizer, reorganization of waiting spaces to allow 6 feet distance, adequate signages, and **one-way traffic movement** should further be enforced.

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Further, all outpatient imaging protocols need to be streamlined taking into account adequate spacing between the examinations to enable cleaning and increasing throughput as well as to reduce waiting room and image space congestion, thereby limiting potential exposures. **Abbreviated or accelerated MRI protocols** are need of the hour and could prove pivotal in rendering efficient MSK radiology services during these stressful times. Pre-imaging/ pre-procedure COVID-19 testing of patients, wherever the resources allow, should be considered. Some countries have distributed **self-test kits** to health-care professionals for biweekly testing. These are essentially rapid antigen tests using a lateral flow device which can be easily performed at home.

For protection of the radiology personnel, adequate social distancing within the reporting rooms, console areas, and common rooms is to be ensured. Continued school and day care closures could significantly hamper the availability of adequate radiology staff. Therefore, a thrust for limited on-site reporting room coverage only for adequate procedure coverage and consultations while providing flexibility of remote or home reporting to the rest has to be maintained. There should be staggering of radiologist and technologist coverage for extended hours.

To ensure continued medical training virtual case reviews, multidisciplinary team meets and educational conferences must be encouraged. Care must be taken to ensure that every member of the team is well trained in the new equipment/ protocol/process stemming from the current health crisis. Moreover, initiatives coming down from executive leadership also need to be scrutinized for feasibility on ground, bearing in mind the concept of **patient safety first**.

Adaptations of the current radiology practices to allow further digital transformation are also much needed. These could be in the form of either workflow integrated diagnostic algorithms, cloud-based analytics, or location independent operations to allow for resumption of increased demands while improving outcomes and patient safety. Artificial intelligence powered natural language processing may be used to automate identification, extraction, and analysis of unstructured data from radiology reports to make it actionable. This can streamline the tracking process and proactively manage follow-up care by facilitating communication with the referring clinicians. Some of the products available in the market, for example, **PowerScribe**<sup>m</sup> also help radiologists to prioritize and reschedule examinations during the surge and deliver improved services going forward.

Mounting pressure of the MSK injection lists has to be dealt with care. Patient safety protocols have to be ensured and pathways can be formulated depending on local needs. The requests need to be vetted by the MSK radiologists, duly taking into account a pre-procedure checklist, especially for the guided steroid injections. There is an added risk of giving these steroid injections to patients over 70, chronic lung disease, chronic liver or kidney disease, diabetes mellitus, BMI >40, under treatment cancer patients, postsplenectomy, organ transplant patients, or patients under immunosuppression in the current environment. All these factors along with any symptoms of/exposure to COVID-19 have to be a part of the checklist.

Leadership has to be more receptive to the staff needs than ever before. Incidences of discrimination, bullying and harassment, human error, miscommunication, and staff burnout will be a major challenge during these testing times. Appropriate changes in the radiology policies and practices taking into account the locoregional and cultural needs are imperative in tackling this herculean task of managing the post-COVID surge.

## REFERENCE

1. Mossa-Basha M, Azadi J, Klein J, Menias C, Fillipi C, Tan BS, *et al.* RSNA COVID-19 Task Force: Post COVID Surge Radiology Preparedness; 2020.

How to cite this article: Negi R. Post COVID-19 surge: Are we prepared for the road to recovery?. Indian J Musculoskelet Radiol 2020;2(2):87-8.