

---

## RO-ILS CASE STUDY 05: UTILIZING IMAGES TO IDENTIFY COVID-19 PATIENTS

Utilizing the communication tool of SBAR (Situation-Background-Assessment-Recommendation), the Radiation Oncology Healthcare Advisory Council (RO-HAC) offers the following patient safety and incident learning information regarding the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus.

**Situation:** [Radiation oncology facilities have observed](#) that imaging for radiation therapy (cone beam computed tomography [CBCT] obtained for image guidance or CT simulation) may show changes suggestive of COVID-19 infection.

**Background:** SARS-CoV-2 cases have been increasing across the nation, and patients with COVID-19 disease can present with pulmonary symptoms and severe respiratory illness. However, there is a spectrum of clinical manifestations of this disease, and some patients may have very mild symptoms. Additionally, patients receiving radiation therapy may have pulmonary symptoms for other reasons related to their underlying cancer.

**Assessment:** Radiation therapists, physicists, dosimetrists and physicians reviewing images have an opportunity for a ‘good catch’ by identifying a patient who warrants additional evaluation for SARS-CoV-2 infection.

**Recommendation:** Radiation therapists, physicists, dosimetrists and physicians are encouraged to become acquainted with the typical changes of COVID-19 on CT scan, as described in [Bernheim et al 2020](#). “The hallmarks of COVID-19 infection on imaging were bilateral and peripheral ground-glass and consolidative pulmonary opacities.”

When a CT scan (CBCT or CT simulation) is obtained, and these changes are noted, the patient’s treating physician should be notified so they can decide the next course of action. Since these scans are not diagnostic quality, and [other conditions can mask as COVID-19](#) on CT examination, it is likely that additional evaluation may be warranted. Prompt physician evaluation of these images is encouraged, as if these images are felt to warrant further patient evaluation, patient management and staff precautions may change.

As always, practices enrolled in RO-ILS are encouraged to [celebrate their team’s good catch](#) and submit this type of event to RO-ILS. As radiation oncology processes are changing on a regular basis to keep up with the public health emergency, it is important that practices continue to employ incident learning to inform processes/staff and report events to the national patient safety organization.