

BACKGROUND:

The goal of imaging in COVID-19 patients is to provide high level care while minimizing risks to healthcare staff and other patients.

ASSESSMENT:

The transport of suspected/confirmed COVID-19 patients for imaging should be minimized. As such, ensuring appropriate imaging utilization is necessary. Portable imaging alternatives rather than transport to the radiology department should also be used whenever possible. The use of chest imaging should follow best practice guidelines (Appendix A). Any non-critical imaging or procedure should be deferred until COVID-19 diagnosis is confirmed (and patient recovers from their illness) or excluded.

RECOMMENDATION:

- All imaging requests (excluding radiographs) for patients with pending or confirmed COVID-19 will be reviewed by an attending or resident radiologist. Any denial must come from an attending radiologist. (Appendix A)

Appendix A: Appropriate use of Chest Imaging in COVID-19 confirmed/PUI

Ordering providers should specifically state if COVID is suspected for any imaging study.

SCREENING:

- No imaging role.

INITIAL PRESENTATION:

- Portable CxR (erect position in deep inspiration) is appropriate.
- Chest CT is not appropriate as it is not specific and cannot distinguish between COVID and other infections. Chest CTA can be done if suspecting PTE.

ADMITTED TO HOSPITAL WHILE WAITING FOR COVID TEST RESULTS:

- No imaging recommended.

POSITIVE COVID CASES IN ICU:

- CXR only if there is clinical worsening or checking for tubes, lines.
- CT: Not appropriate unless significant clinical worsening and/or suspect complications (lung abscess, empyema, suspect PTE); either a routine thin section chest CT (not HRCT) or chest CTA for suspected PTE.
- CT should not be done to evaluate for pleural effusion (bedside ultrasound is appropriate).

REFERENCES:

- (1) Global surveillance for COVID-19 disease caused by human infection with the 2019 novel coronavirus Interim guidance. World Health Organization. 27 February 2020. WHO reference number: WHO/2019-nCoV/SurveillanceGuidance/2020.4
- (2) ACR Recommendations for the use of Chest Radiography and Computed Tomography (CT) for Suspected COVID-19 Infection.
<https://www.acr.org/Advocacy-and-Economics/ACR-Position-Statements/Recommendations-for-Chest-Radiography-and-CT-for-Suspected-COVID19-Infection>.
- (3) Mossa-Bossa et al. Radiology Department Preparedness for COVID19: Radiology Scientific Expert Panel. Radiology 2020. <https://pubs.rsna.org/doi/10.1148/radiol.2020200988>