

COVID-19 info from the BSR

March 14 2020.

From the BSR Board, Scientific Council and BSR Chest Section.

Concerning COVID-19

1/Guidelines as to the hygienic measures for limiting virus spread in imaging departments are at the discretion of the authorities and subject to local decisions. The BSR cannot supply exact guidelines also due to the rapidly changing circumstances.

2/Guidelines how to organize Imaging Departments and their throughput/appropriateness are also subject to local hospital/network and authority decisions.

3/Guidelines for imaging in COVID-19 are supplied below.

The ACR, SFR and FOD have published very useful information on their websites.

Concerning point 3:

Typical indications for imaging

Imaging of COVID-19 patients (proven or 'possible') is only needed when there are clinical implications.

- CT should NOT be used as screening tool to replace laboratory testing for COVID-19
- If imaging is needed and patients can be transferred to the radiology department: unenhanced CT is the preferred imaging technique. There is no place for chest radiographs.
- Follow-up imaging of patients who are admitted to the Intensive Care unit or specialized units in isolation: portable radiography

- Patients who have a clinical suspicion of COVID-19 but cannot be tested (due to shortage of testing) and who are advised to go home: no need for imaging, no chest radiographs, no CT.

- Patients who are hospitalized and tested COVID-19 positive with no clinical deterioration: no imaging
- Patients who are hospitalized and tested COVID-19 positive with clinical deterioration:
 - o In general: unenhanced CT, thin section
 - o When there are comorbidities, hemoptysis, suspicion of pulmonary embolism, possibility of other pathology (pleural, pericardial, ...) etc.: IV contrast may be needed. This needs to be discussed with the treating clinician on a case per case basis.

- Patients who are hospitalized and tested COVID-19 negative but who have a clinical suspicion of possible COVID-19 infection: should be handled with the same

precautions as COVID-19 positive patients. Imaging only indicated in case of therapeutic consequences.

- In very specific conditions, CT can be considered to confirm or exclude COVID-19 infection. For example patients who need hemodialysis or need to be transferred to other centres (handicapped patients, specific treatment,). If patients have negative testing but high clinical suspicion, a negative CT may be used to confirm low likelihood of infection and patients can be transferred safely. These cases should be the exception and should be discussed on a case per case basis with the treating physician.
- Follow-up imaging studies in patients who are clinically improving is not indicated.
- There is currently no evidence to perform a CT at the end of treatment.
- If COVID-19 positive patients need an ultrasound: this should be preferably done bedside.

CT-imaging features:

Radiologists should familiarize themselves with the CT appearance of COVID-19 infection, in order to be able to identify possible COVID-19 related infection on imaging studies performed for other reasons. See cases. https://www.bsr-web.be/docs/Imaging_Coronavirus_BSR_chest.pdf. Preliminary data show that findings in Belgian patients are similar to cases published in literature (mainly Chinese population)