
Use of Lung Ultrasound in COVID-19: ESR Issues Report



The European Society of Radiology (ESR) has released a new report about the role of lung ultrasound in COVID-19 patients which includes seven clinical images and advice on infection control.

This report summarises basic settings in lung ultrasonography and best practice recommendations for lung ultrasonography in COVID-19, representing the agreed consensus of experts from the Ultrasound Subcommittee of the European Society of Radiology (ESR). The [full open access document](#) also includes standard lung settings and artefacts in lung ultrasonography are explained for education and training, equipment settings, documentation and self-protection.

KEY POINTS

- Chest multislice-CT is still regarded as the gold-standard imaging technique for thoracic evaluation.
- Lung ultrasonography can show typical pattern for interstitial pneumonia.
- COVID-19 lesions mainly involve the peripheral pulmonary zones, which makes this disease accessible for pulmonary ultrasonography evaluation.
- Lung ultrasonography can make a substantial contribution, as it allows direct bedside examination of the lung and pleural space.
- Lung ultrasonography in experienced hands can give results that are comparable to chest MS-CT and superior to standard chest radiography for assessment of pneumonia and/or adult respiratory distress syndrome (ARDS).

Because of its non-invasive nature, Lung ultrasonography has substantial use in management of COVID-19 pneumonia in the ICU. In COVID-19, lung ultrasonography can be used for quick valuation of the severity of SARS-CoV-2 pneumonia, to track the evolution of disease during follow-up and to monitor lung recruitment manoeuvres. Additionally, ultrasonography can track the response to prone-position ventilation and the controlling of extracorporeal membrane therapy.

The report describes the primary advantages of lung ultrasonography as its safety, repeatability and low cost. The authors note the increasing use of bedside ultrasonography in the ICU, meaning patients can be protected from needless radiation and therapy delays, and they suggest that the CT may be reserved for follow-up in cases where lung ultrasonography is unable to show a clear diagnosis.

Source: [Insights into Imaging](#)

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