

Lung ultrasound

DIAGNOSING PNEUMONIA

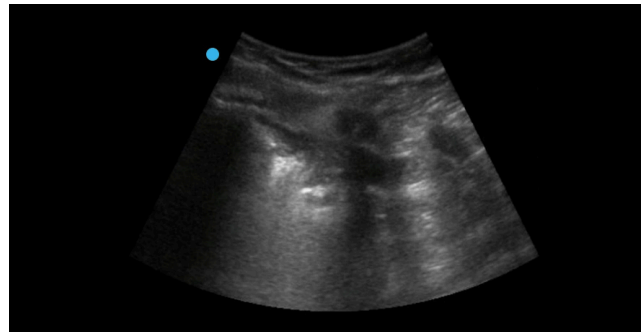
Pneumonia can be identified rapidly and without radiation exposure using ultrasound.

Ultrasound has greater sensitivity and specificity than a chest x-ray for the diagnosis of pneumonia.

Most pneumonias develop in small, peripheral airways near the pleura. Consolidation then creates a solid medium in contact with the pleura that can be visualized with ultrasound.



Normal pleura

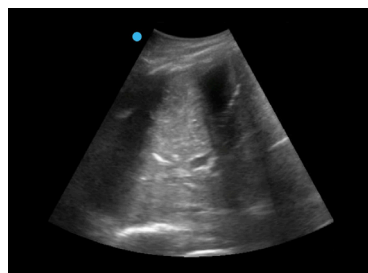


Pleural irregularity

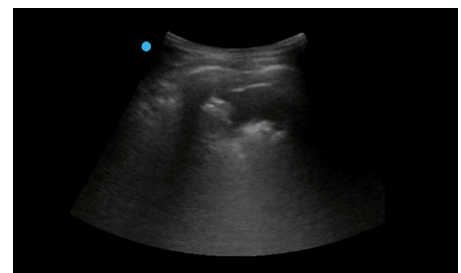
Pneumonia has a range of appearances. All suspected consolidations, but smaller ones in particular, must be interpreted in terms of the pre-test probability that the patient has pneumonia. Small, subpleural consolidations can represent a variety of diseases. Ensure you evaluate the lung for other abnormalities; multiple consolidations may alter the differential diagnosis.



Shred sign



Empyema



Subpleural consolidation

If you think the likelihood of pneumonia is moderate to high, but lung ultrasound is non-diagnostic, obtain a chest x-ray. While lung ultrasound is more sensitive overall, it can miss pneumonias, particularly interstitial infections that do not contact the pleura.