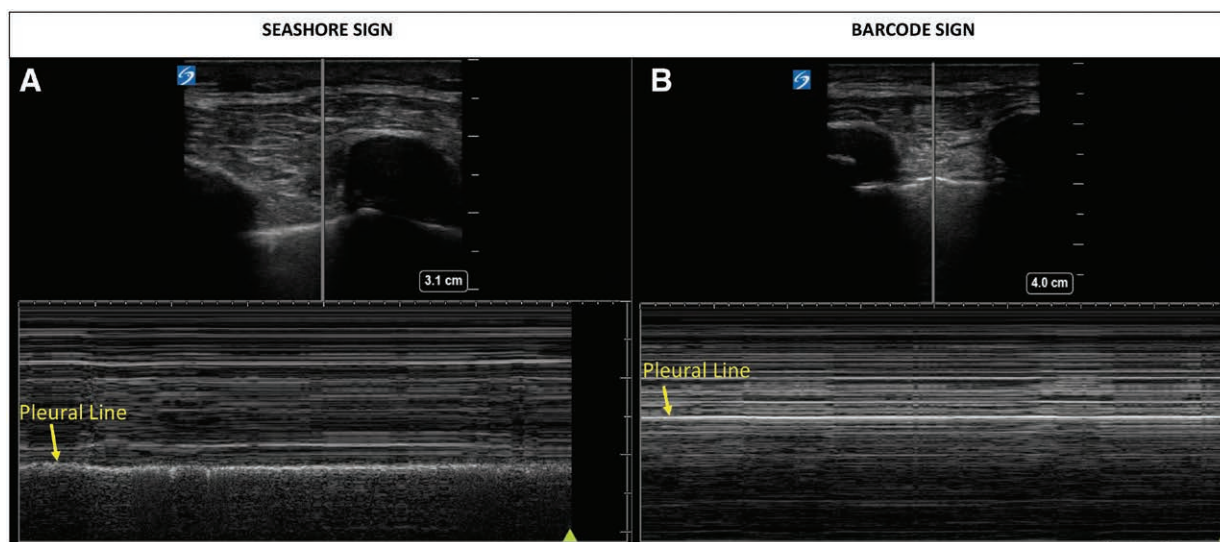


# The Lung Point

## Early Identification of Pneumothorax on Point of Care Ultrasound

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Pneumothorax is a potentially life-threatening emergency that can be difficult to diagnose intraoperatively. Unrecognized pneumothorax can result in hypoxia, and positive pressure ventilation can lead to the development of tension pneumothorax. Perioperative lung ultrasonography can aid in the rapid diagnosis of pneumothorax.<sup>1</sup>

These lung ultrasound images demonstrate the presence of the lung point sign, the interface between normal lung and pneumothorax, after an attempted central venous line placement.<sup>2</sup> The images were obtained with a high-frequency linear probe placed in the longitudinal direction on the chest with the probe marker pointing cephalad. The pleura is seen as a hyperechoic line extending between rib shadows. Lung sliding—the shimmering of the hyperechoic pleura due to the sliding of visceral pleura relative to the parietal pleura—is seen in healthy lungs. In lung point, normal pleural sliding is seen on one side of the interface and absence of sliding on the other, which is diagnostic for pneumothorax (Supplemental Digital Content, <http://links.lww.com/ALN/B987>). On motion mode, with the beam placed at the point of normal lung sliding, the sea-shore sign is seen with lines above the hyperechoic pleura and a speckled pattern beyond it (*panel A*). When the ultrasound beam is moved to the site with absent lung sliding,

a linear pattern both above and below the pleura, the bar code sign, is noted (*panel B*).

Although the identification of lung point sign is 100% specific for the diagnosis of pneumothorax, the sensitivity is only around 66%.<sup>3</sup> Lung point is not seen in cases of total lung collapse.

### Competing Interests

The authors declare no competing interests.

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