What Is the Diagnostic Accuracy of Lung Ultrasound for Acute Chest Syndrome Using the Standard of Chest Radiograph?

**STUDY DESIGN**

- Meta-analysis of six prospective observation studies and 625 cases of possible acute chest syndrome (ACS)
- 97% of patients were <21 years old

**RESULTS**

- Diagnostic Criteria: combination of consolidations, air bronchograms, B-lines, or pleural effusions

Summary receiver operating characteristic curve of lung ultrasound for ACS diagnosis using chest radiograph as the reference standard.

- Sensitivity of 0.92 (95% CI, 0.68-0.98)
- Specificity of 0.89 (95% CI, 0.69-0.97)
- AUC of 0.96

Lung ultrasound has excellent sensitivity and very good specificity for the diagnosis of acute chest syndrome and could serve to spare pediatric patients from chest radiograph radiation.

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