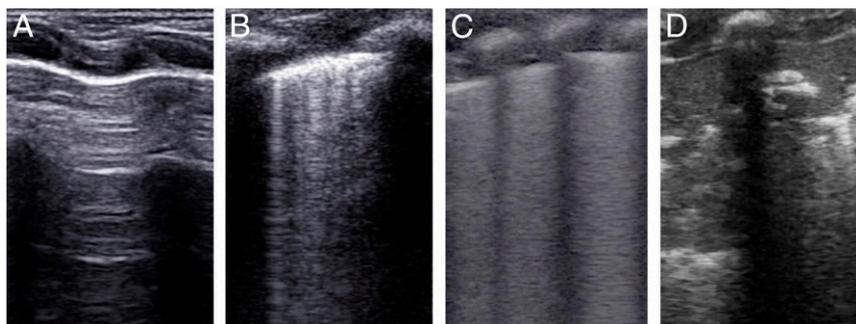


Supplemental Information



SUPPLEMENTAL FIGURE 2

LUS description. Each lung is divided into 3 areas: upper anterior, lower anterior, and lateral. For each area, a score of 0 to 3 points has been assigned. Score values correspond to 4 different patterns, as shown. Pictures were taken during longitudinal or transversal scans with a high-resolution hockey stick linear probe. Scores are given as follows for each lung area: (1) 0 indicates an A pattern (ie, a well-aerated lung, defined by the presence of only A lines), (2) 1 indicates a B pattern (ie, an alveolar-interstitial pattern, defined as the presence of ≥ 3 well-spaced B lines), (3) 2 indicates a severe B pattern (ie, a severe alveolar-interstitial pattern, defined as the presence of crowded and coalescent B lines with or without subpleural consolidations with a size of ≤ 1 cm), and (4) 3 indicates extended consolidation (with size > 1 cm). A, 0. A pattern (normal lung). B, 1. B pattern (alveolar interstitial). C, 2. Severe B pattern (alveolar interstitial). D, 3. Consolidation.

SUPPLEMENTAL TABLE 3 Reliability of LUS to Be Used to Predict Surfactant Treatment and Re-treatment: Subgroup Analysis of Neonates ≤ 28 and > 28 Weeks' GA

Cutoff Value	Sensitivity, % (95% CI)	Specificity, % (95% CI)	+LR, % (95% CI)	−LR, % (95% CI)	+PV, % (95% CI)	−PV, % (95% CI)	Posttest Probability, % (95% CI)
Neonates ≤ 28 wk gestation							
Surfactant treatment							
>6	87 (75–96)	80 (61–92)	4.3 (2–9)	0.17 (0.08–0.3)	88.5 (77–96)	77 (59–90)	88 (80–94)
>7	83 (70–92)	87 (69–96)	6.2 (2.5–16)	0.2 (0.1–0.4)	92 (80–98)	74 (57–88)	92 (81–96)
Surfactant re-treatment							
>10	83 (59–96)	66 (53–77)	3 (2.5–4)	0.25 (0.09–0.7)	40 (25–56)	94 (82–99)	40 (33–49)
Neonates > 28 wk gestation							
Surfactant treatment							
>6	100 (77–100)	80 (73–92)	5 (3–10)	0	67 (43–85)	100 (88–100)	68 (52–78)
>8	100 (77–100)	94 (81–99)	17 (5–67)	0	88 (62–98)	100 (89–100)	85 (68–95)

For the prediction of surfactant treatment, the LUS cutoff values associated with sensitivity and specificity $> 80\%$ are shown. For surfactant redosing, the cutoff value with sensitivity $> 80\%$ and the best specificity is shown; the subgroup analysis for infants > 28 weeks' GA was not performed because only 1 patient received a second surfactant dose in this subgroup. −LR, negative likelihood ratio; +LR, positive likelihood ratio; −PV, negative predictive value; +PV, positive predictive value.

