

Supplementary Material

Severity Scoring of Lung Edema on the Chest Radiograph Is Associated with Clinical Outcomes in ARDS

Melissa A. Warren, M.D., Zhiguo Zhao, M.S., Tatsuki Koyama, Ph.D., Julie A. Bastarache, M.D., Ciara M. Shaver, M.D., Ph.D, Matthew W. Semler M.D., Todd W. Rice, M.D., MSCI
Michael A. Matthay, M.D., Carolyn S. Calfee, M.D., Lorraine B. Ware, M.D.

Supplemental Table 1. Clinical characteristics of deceased organ donors (n=72)

Characteristic	Median (IQR) or N (%)
Age (years)	49 (40, 56)
Male	45 (63%)
Caucasian	47 (65%)
BMI (kg/m ²)	28.4 (24.8, 32.2)
Current smoker	26 (37%)
Cause of brain death	
CNS hemorrhage or infarct	35 (49%)
Head trauma	25 (34%)
Anoxia	12 (17%)
Total excised lung weight (g)	797 (650, 987)
Pre-procurement RALE score	7 (5, 15)

BMI, body mass index; CNS, central nervous system; RALE, radiographic assessment of lung edema

Supplemental Table 2. Associations between PaO₂/FiO₂ and baseline RALE scores while adjusting for age, gender and BMI in the FACTT cohort

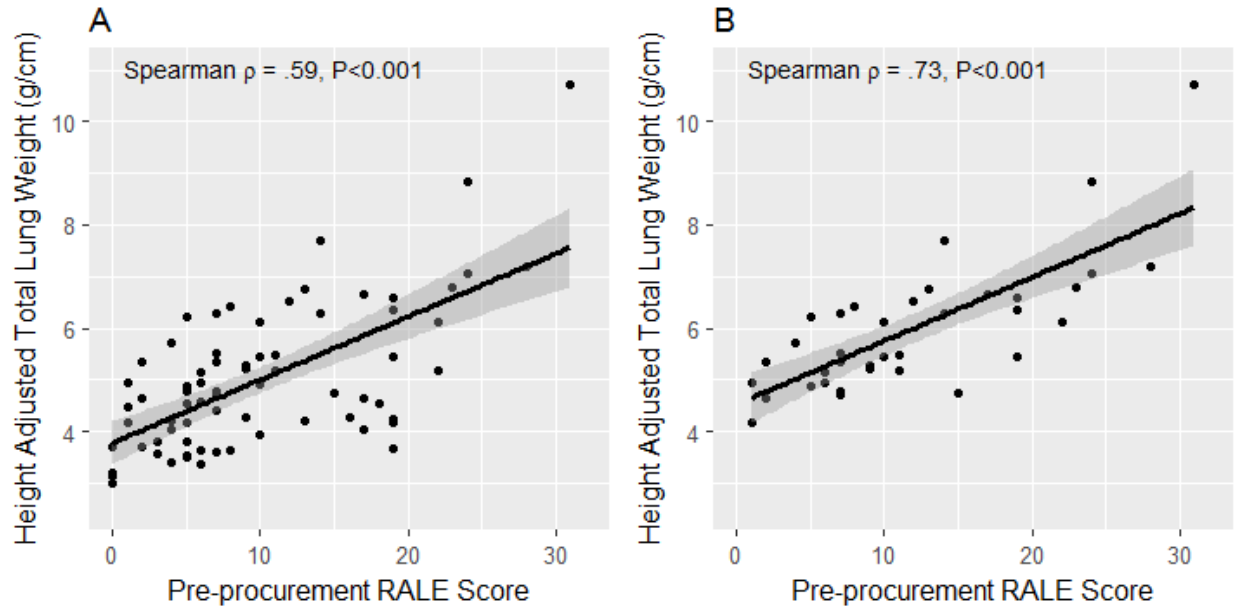
Factors	Effect size (β)*	95% CI	P value
Baseline RALE	8.38	3.01-13.75	0.002
Age	6.67	-8.34-21.69	0.38
Male Gender	-0.41	-21.34-20.53	0.97
BMI	-5.33	-21.93-11.26	0.53

* Effect sizes are for 5 unit increase for RALE, upper quartile vs lower quartile for age and BMI.

Supplemental Table 3. Associations between survival and baseline RALE scores while adjusting for age, gender, BMI and APACHE in the FACTT cohort

Factors	HR*	95% CI	P value
Baseline RALE	0.84	0.72-0.99	0.03
Age	1.54	1.00-2.37	0.05
Male Gender	0.89	0.49-1.64	0.71
BMI	0.83	0.52-1.34	0.46
APACHE	2.52	1.72-3.71	<0.001

* Effect sizes are for 5 unit increase for RALE, upper quartile vs lower quartile for age, BMI and APACHE.



Supplemental Figure 1. Comparison of preprocurement RALE score to total excised lung weight (height adjusted) in 72 deceased organ donors. Panel A: The RALE score was significantly correlated with the total lung weight ($\rho = 0.59, p < 0.001$). Panel B: The correlation between RALE score and total lung weight was improved when only lungs with more pulmonary edema (weight above the median of 797g) were included ($\rho = 0.73, p < 0.001$).