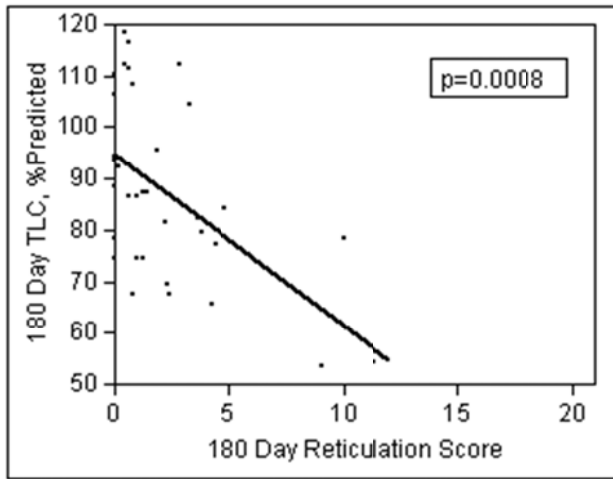


**Chest Computed Tomography Features are Associated with Poorer Quality of Life in
Acute Lung Injury Survivors**

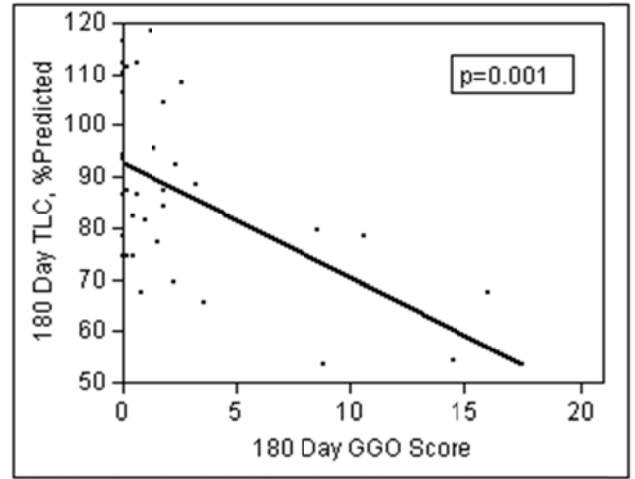
Ellen L. Burnham, MD, MS; Robert C. Hyzy, MD; Robert Paine, III, MD, Curtis Coley, II, MD;
Aine M. Kelly, MD, MD; Leslie E. Quint, MD; David Lynch, MB; William J. Janssen, MD;
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Supplemental Digital Content

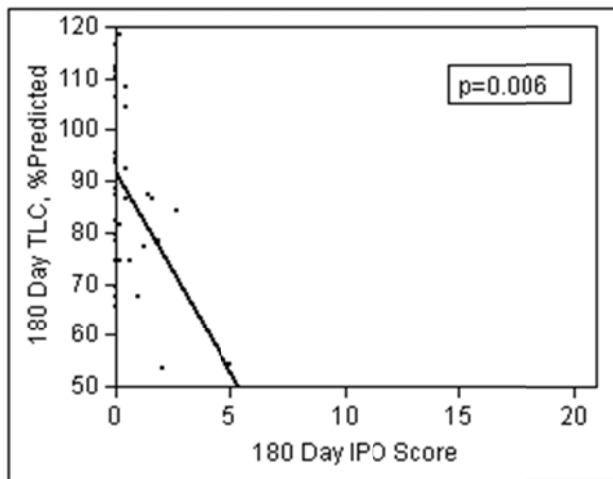
Supplemental
Figure 1a.



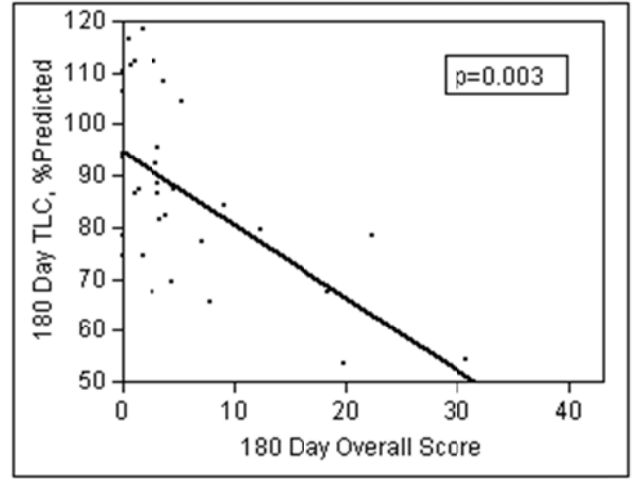
Supplemental
Figure 1b.



Supplemental
Figure 1c.



Supplemental
Figure 1d.



Supplemental Digital Content-2. Pulmonary function testing compared with health related quality of life at 180 days

Pulmonary Function Testing Parameters at <u>180 Days</u> after ALI Diagnosis																			
		FVC, %predicted			FEV₁/FVC ratio			TLC, %predicted			RV, %predicted			DLCO/VA, %predicted			DLCO, %predicted		
		R²	r	P	R²	r	P	R²	r	P	R²	r	P	R²	r	P	R²	r	P
Short form-36 Survey at <u>180 Days</u>	Physical Function	0.39	0.6	<0.0001	0.004	-0.07	0.66	0.19	0.4	0.004	0.01	0.1	0.54	0.10	0.3	0.04	0.37	0.6	0.0001
	Role Physical	0.20	0.4	0.002	0.01	0.10	0.53	0.22	0.5	0.002	0.04	0.2	0.20	0.04	0.2	0.19	0.27	0.5	0.0003
	Physical Health Subtotal	0.34	0.6	<0.0001	0.0	0.01	0.95	0.21	0.5	0.003	0.02	0.1	0.40	0.05	0.2	0.15	0.29	0.5	0.0001
St. George's Respiratory Questionnaire at <u>180 Days</u>	Symptoms	0.12	-0.4	0.02	0.02	0.1	0.38	0.12	-0.4	0.02	0.05	-0.2	0.15	0.03	0.2	0.26	0.02	-0.1	0.34
	Activity	0.27	-0.5	0.0002	0.01	0.1	0.50	0.20	-0.4	0.003	0.02	-0.1	0.40	0.01	-0.1	0.48	0.19	-0.4	0.003
	Impact	0.13	-0.4	0.01	0.03	0.2	0.24	0.17	-0.4	0.008	0.03	-0.2	0.28	0.003	-0.1	0.71	0.09	-0.3	0.04
	Total	0.21	-0.5	0.001	0.02	0.2	0.32	0.21	-0.5	0.003	0.03	-0.2	0.25	0.002	-0.05	0.75	0.13	-0.4	0.01

Supplemental Digital Content-3. Relationship between HRCT score at 14 days, inpatient clinical variables, and 180 HRQoL as assessed by either the SF-36 (top table), or SGRQ (bottom table).

N=39 observations

	SF-36 Physical Health Subtotal R ² =0.31		SF-36 Physical Health Subtotal R ² =0.25		SF-36 Physical Health Subtotal R ² =0.28	
Variable	β±SE	P value	β±SE	P value	β±SE	P value
Intercept	64.6±16.4	0.0004	66.2±17.9	0.0008	70.6±17.8	0.0004
14 Day HRCT Reticulation score	-3.3±1.1	0.005	--	--	--	--
14 Day HRCT GGO score	--	--	-2.1±0.8	0.02	--	--
14 Day HRCT Total score	--	--	--	--	-1.1±0.4	0.007
Age	0.3±0.3	0.25	0.1±0.3	0.36	0.2±0.3	0.49
APACHE II	-0.6±0.5	0.25	-0.5±0.6	0.36	-0.6±0.6	0.29
Pneumonia as ALI risk factor [y/n]	-3.3±3.8	0.38	-2.5±3.9	0.51	-3.5±3.8	0.36
Ventilator-free days	-0.01±0.5	0.98	0.4±0.5	0.36	0.1±0.5	0.83

N=37 observations

	SGRQ Overall Score R ² =0.32		SGRQ Overall Score R ² =0.22		SGRQ Overall Score R ² =0.29	
Variable	β±SE	P value	β±SE	P value	β±SE	P value
Intercept	11.8±13.4	0.39	11.6±15.1	0.45	6.1±14.6	0.68
14 Day HRCT Reticulation score	2.9±0.9	0.002	---	---	---	---
14 Day HRCT GGO score	---	---	1.7±0.7	0.02	---	---
14 Day HRCT Total score	---	---	---	---	0.9±0.3	0.005
Age	-0.1±0.2	0.55	-0.1±0.2	0.76	-0.1±0.2	0.62
APACHE II	0.3±0.5	0.50	0.4±0.5	0.39	0.5±0.5	0.31
Pneumonia as ALI risk factor [y/n]	0.4±3.1	0.89	-0.9±3.3	0.78	0.1±3.2	0.99
Ventilator-free days	0.1±0.4	0.89	-0.2±0.4	0.54	0.1±0.4	0.89

SF-36=short form-36; SGRQ=St. George's Respiratory Questionnaire; GGO=ground glass opacification