

## Online Data Supplement

### **Respiratory function and CT abnormalities among survivors of COVID-19 pneumonia – a nationwide follow-up study**

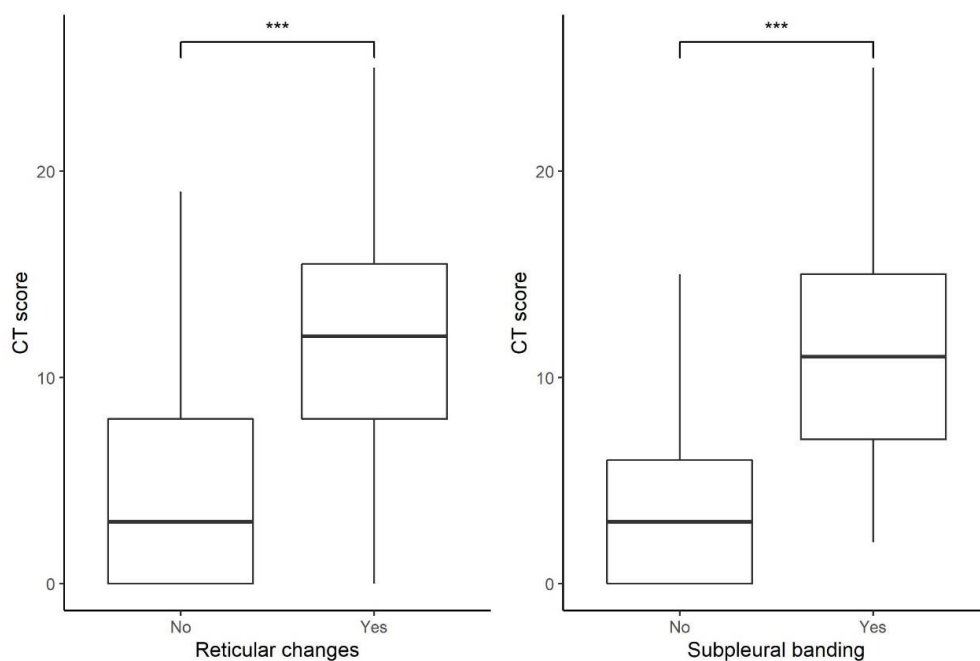
Gisli Thor Axelsson<sup>1,2</sup>, Arnljotur Bjorn Halldorsson<sup>3</sup>, Helgi Mar Jonsson<sup>3</sup>, Elias Eythorsson<sup>2</sup>, Sigridur Erla Sigurdardottir<sup>4</sup>, Hronn Hardardottir<sup>1,4</sup>, Gunnar Gudmundsson<sup>1,4</sup>, Sif Hansdottir<sup>4</sup>

<sup>1</sup>University of Iceland, Faculty of Medicine, Reykjavik, Iceland;

<sup>2</sup>Department of Internal Medicine, Landspítali University Hospital, Reykjavik, Iceland;

<sup>3</sup>Department of Medical Imaging, Landspítali University Hospital, Reykjavik, Iceland;

<sup>4</sup>Department of Respiratory Medicine and Sleep, Landspítali University Hospital, Reykjavik, Iceland.



**Figure S1 – CT score at follow-up stratified by existence of radiologic findings**

Box plots of the distributions of CT scores at follow-up stratified by the existence of reticular changes and subpleural banding on imaging at follow-up. Dashes indicate differences between indicated groups, tested with t-tests.

\*\*\* refers to  $P < 0.001$

**Table S1 – Associations of treatment level with pulmonary outcomes at follow-up using complete case analysis**

	Models using absolute values		Models using % of predicted		
	Beta (95% CI)	P-value	Beta (95% CI)	P-value	
<b>6MWT (meters)</b>					
Inpatient	-36 (-73 to 0.95)	0.058	-4.5 (-10 to 1.2)	0.12	
ICU	-92 (-137 to -47)	0.0001	-13 (-20 to -6.5)	0.0002	
<b>FVC (litres)</b>					
Inpatient	0.04 (-0.27 to 0.36)	0.78	-1.8 (-8.4 to 4.7)	0.59	
ICU	-0.39 (-0.78 to -0.005)	0.049	-8.1 (-16 to 0.04)	0.053	
<b>FEV<sub>1</sub> (litres)</b>					
Inpatient	0.07 (-0.15 to 0.29)	0.53	-0.77 (-7.4 to 5.9)	0.82	
ICU	-0.12 (-0.40 to 0.15)	0.38	-3.0 (-11 to 5.1)	0.47	
<b>FEV<sub>1</sub>/FVC</b>					
Inpatient	1.0 (-1.7 to 3.6)	0.49	-	-	
ICU	5.0 (1.6 to 8.3)	0.004	-	-	
<b>DL<sub>co</sub> (mmol/(min·kPa))</b>					
Inpatient	-0.45 (-1.0 to 0.14)	0.14	-8.8 (-15 to -3.0)	0.003	
ICU	-1.8 (-2.5 to -1.1)	<0.0001	-22 (-29 to -14)	<0.0001	
<b>Saturation after 6MWT (%)</b>					
Inpatient	-0.14 (-1.3 to 1.0)	0.82	-	-	
ICU	-2.1 (-3.5 to -0.71)	0.004	-	-	
<b>mMRC</b>					
Inpatient	1.0 (0.08 to 2.0)	0.03	-	-	
ICU	0.68 (-0.46 to 1.8)	0.24	-	-	

Results from regression models of treatment level, adjusted for age, sex, BMI and history of smoking, type 2 diabetes, any lung disease and hypertension, with the specified outcome (its absolute value on the left and, when applicable, a percentage of a predicted value on the right). Models are done using complete-case analysis, omitting participants with missing predictor, outcome or covariate data. Models are linear models, except for mMRC modelled with proportional odds models. mMRC was modelled using three categories (1,2, and 3 or more). Age is modelled using a restricted cubic spline with four knots.

**Table S2 – Associations of CT-score at follow-up with pulmonary outcomes using complete case analysis**

	Models using raw values		Models using % of predicted	
	Beta (95% CI)	P-value	Beta (95% CI)	P-value
<b>6MWT (metres)</b>				
CT score	-4.9 (-7.2 to -2.7)	<0.0001	-0.75 (-1.1 to -0.41)	<0.0001
<b>FVC (litres)</b>				
CT score	-0.04 (-0.06 to -0.02)	0.0002	-0.44 (-0.83 to -0.04)	0.031
<b>FEV<sub>1</sub> (litres)</b>				
CT score	-0.02 (-0.03 to -0.003)	0.018	-0.09 (-0.49 to 0.31)	0.67
<b>FEV<sub>1</sub>/FVC (%)</b>				
CT score	0.34 (0.19 to 0.50)	<0.0001	-	-
<b>DL<sub>co</sub> (mmol/(min·kPa))</b>				
CT score	-0.12 (-0.15 to -0.08)	<0.0001	-1.2 (-1.5 to -0.81)	<0.0001
<b>Saturation after 6MWT (%)</b>				
CT score	-0.11 (-0.18 to -0.04)	0.003	-	-
<b>mMRC</b>				
CT score	0.01 (-0.04 to 0.07)	0.66	-	-

Results from regression models of CT score, adjusted for age, sex, BMI and history of smoking, type 2 diabetes, any lung disease and hypertension, with the specified outcome (its absolute value on the left and, when applicable, a percentage of a predicted value on the right). Models are done using complete-case analysis, omitting participants with missing predictor, outcome or covariate data. Models are linear models, except for mMRC modelled with proportional odds models. mMRC was modelled using three categories (1,2, and 3 or more). Age is modelled using a restricted cubic spline with four knots.