## SUPPLEMENTARY MATERIAL

**Figure S1.** Correlations between RV/TLC and impulse oscillometry parameters (% of predicted) including (A) difference between resistance in 5Hz and 20Hz ( $R_5$ - $R_{20}$ ), (B) reactance in 5 Hz ( $X_5$ ), (C) resonant frequency ( $F_{res}$ ) and (D) area under reactance curve between 5 Hz and resonant frequency (AX). RV, residual volume; TLC, total lung capacity.



**Figure S2.** Receiver operating characteristic curve analysis of impulse oscillometry parameters (% of predicted) to detect static lung hyperinflation (SLH) in patients with severe asthma. R<sub>5</sub>, resistance in 5 Hz; R<sub>20</sub>, resistance in 20 Hz; X<sub>5</sub>, reactance in 5 Hz; F<sub>res</sub>, resonant frequency; AX, area under reactance curve between 5 Hz and resonant frequency.





**Figure S4.** Receiver operating characteristic curve analysis of impulse oscillometry parameters, including (A) absolute value of resistance in 5Hz (R<sub>5</sub>), (B) absolute value of resistance in 20 Hz (R<sub>20</sub>), (C) R<sub>5</sub> (% of predicted) and (D) R<sub>20</sub> (% of predicted) to detect static lung hyperinflation (SLH) in patients with severe asthma. AUC: area under the receiver operating characteristic curve.



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