

Acceptability Criteria for MBW

- breathing pattern
 - stable tidal volume, no hyperventilation, no hypoventilation
 - no coughing
 - assessed clinically and in-silico
- variability
 - within 10% from the median FRC / LCI across triplicate tests
 - careful examination for technical issues if larger, but within 25%
 - rejection if larger > 25%
- no leak
 - equilibration between inspiratory and expiratory SF₆ concentrations during wash-in
 - no sudden drop in inspiratory SF₆ concentration during wash-in
- test termination
 - at least three consecutive breaths with end tidal SF₆ concentrations <1/40th of starting value
- test conduction
 - no excessive swallowing (clinical assessment)
 - sufficient interval between tests

(twice the wash-out time or measurement of resituated gas concentrations)

Parameters for propensity score matching

- non-healthy controls (previous collective, n=367)
 - age, gender, weight, height
 - COPD, sarcoidosis, asthma, pulmonary fibrosis
 - FEV₁/VC, RV/TLC, TLCO/VA
- healthy controls (previous collective, n=34)
 - age, gender, weight, height

Table S1. Reversibility testing.

	PH (<i>n</i> = 25)		Non-Healthy Controls (<i>n</i> = 25)		<i>p</i> -value [#]
	<i>n</i>	%	<i>n</i>	%	
test count	12	100	9	100	0.57
Positive					
spirometry [§]	1	8	1	11	>0.9
body [†]	2	17	3	33	0.71
IOS [‡]	4	33	1	11	0.60

[§] FEV₁: >12% and 200 ml increase according to [32], [†] RV: >20% decrease according to [33], [‡] AX: >50% decrease according to [34]. [#] Chi-squared test. * Statistically significant *p* < 0.05.

Table S2. Number of successful MBW measurements.

PH (<i>n</i> = 25)			Healthy Controls (<i>n</i> = 25)			Non-Healthy Controls (<i>n</i> = 25)		
	<i>n</i>	%	<i>n</i>	%	<i>p</i> -Value [#]	<i>n</i>	%	<i>p</i> -Value [#]
<i>LCI</i>								
0	0	0	0	0	>0.9	0	0	>0.9
1	0	0	0	0		0	0	
2	6	24	5	20		6	24	
3	19	76	20	80		19	76	
<i>S_{acin}, S_{cond}</i>								
0	4	16	4	16	0.72	8	32	0.38
1	3	12	6	24		3	12	
2	10	40	9	36		5	20	
3	8	32	6	24		9	36	

LCI: lung clearance index, *S_{acin}*: acinar ventilation heterogeneity, *S_{cond}*: conductive ventilation heterogeneity. [#]Chi-squared test as compared to the PH group. * Statistically significant *p* < 0.05.

Table S3. Comorbidities (PH group, *n* = 25).

	<i>n</i>	%
arterial hypertension	17	68
atrial fibrillation	14	56
coronary heart disease	11	44
diabetes mellitus (type II)	7	28
COPD	7	28
sarcoidosis	5	20
bronchial asthma	2	8
fibrosis	2	8

COPD: chronic obstructive pulmonary disease.

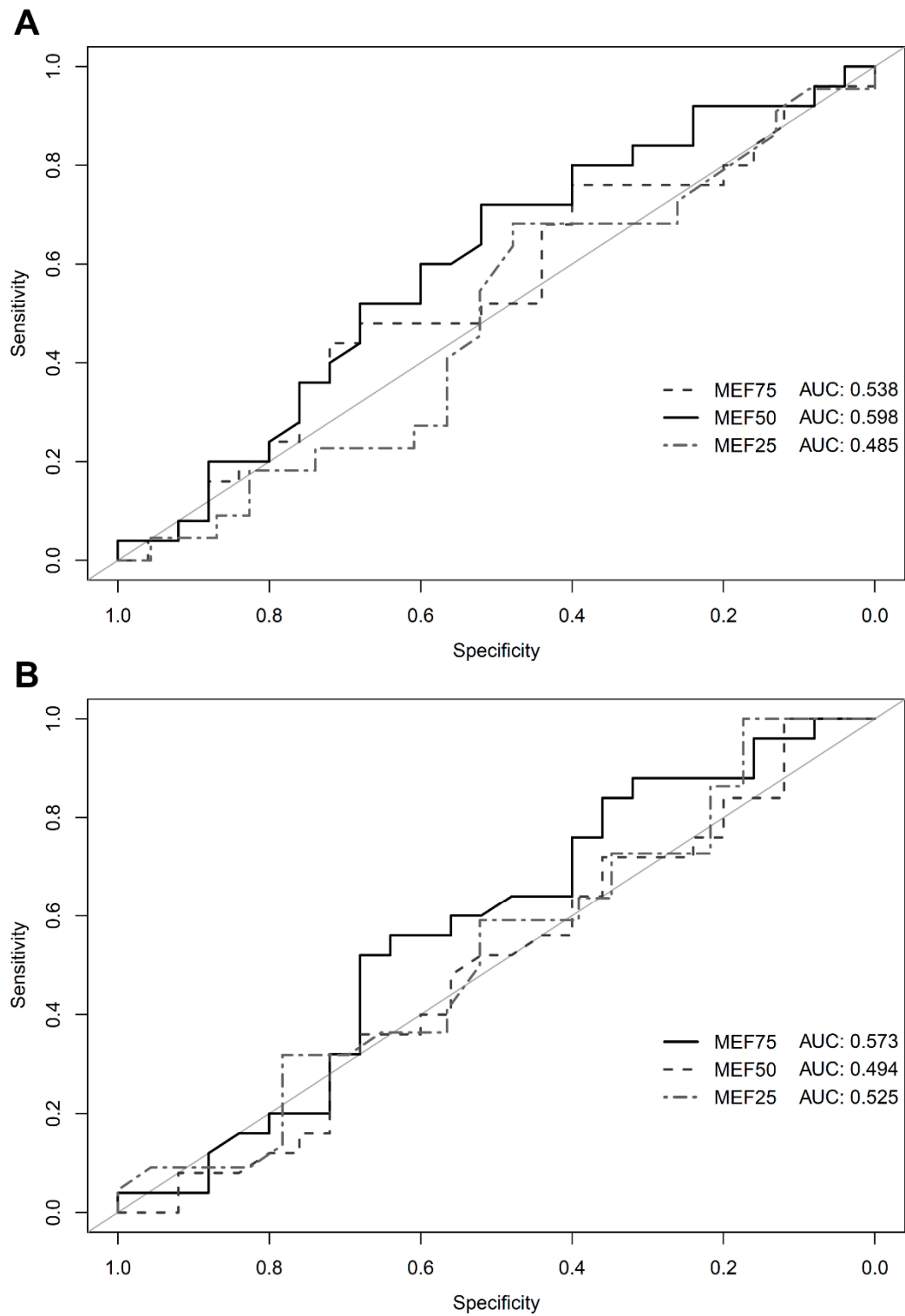


Figure S1. Diagnostic performance: ROC analysis for maximal expiratory flow (MEF) at 75, 50 and 25% of vital capacity (VC). **A:** patients with PH vs. healthy controls. **B:** patients with PH vs. non-healthy controls.