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Table 1
Characteristics of study participants

	IMT group (n=22)	Control Group (n=19)	P-value
Gender (M/F)	14/9	11/8	1.000 ^a
Age (years)	70.1 (8.4)	71.1 (9.6)	0.731
MRC scale	2.7 (0.8)	3 (0.8)	0.309
BMI (kg/m²)	24.9 (5.2)	26.5 (8.1)	0.476
Pack years	74.5 (50.5)	55.1 (37.8)	0.227
FEV₁ (litres)	0.9 (0.3)	0.8 (0.3)	0.609
FEV₁% pred.	37.6 (12.8)	36.9 (15.8)	0.881
FEV₁/VC %	35.5 (9.7)	36.8 (12.6)	0.702
TLC % pred.	121 (11.6)	111.3 (12.8)	0.094
RV % pred.	185.2 (43)	180.8 (39.9)	0.817
PaO₂ (kPa)	9.1 (8.9)	9.1 (1.2)	0.981
PaCO₂ (kPa)	5.3 (0.7)	5.5 (0.9)	0.473

Data expressed as mean (SD). **MRC**: Medical research council; **BMI**: Body mass index; **FEV₁**: forced expiratory volume in 1 second; **TLC**: Total lung capacity. **RV**: residual volume; **PaO₂**: Partial pressure of oxygen in arterial blood; **PaCO₂**: Partial pressure of carbon dioxide in arterial blood.

P value is from an unpaired t-test. ^ap value from Fisher's exact test.

Table 2

Respiratory muscle strength and endurance data pre-and post-IMT

Outcomes	Powerbreathe group (PrBr-IMT)			Control group (C-IMT)			Between group	
	Mean Pre (SD)	Mean Post (SD)	Mean change (95% CI)	Mean Pre (SD)	Mean Post (SD)	Mean change (95% CI)	Change (Prbr- Control mean change)	P value
PI_{max} (cmH₂O)	62.16 (15.94) n=21	71.77 (15.63) n=21	9.61 (4.9 to 14.2)	66.77 (19.08) n=18	68.86 (19.88) n=18	2.09 (-3.6 to 7.8)	7.52	0.04*
SNIP (cmH₂O)	67.75 (15.39) n=21	73.36 (16.03) n=21	5.61 (0.6 to 10.6)	70.72 (20.72) n=17	74.90 (23.71) n=17	4.18 (-2.7 to 11.1)	1.43	0.7
P_{di,tw} (cmH₂O)	15.57 (4.57) n=10	15.06 (6.10) n=10	-0.5 (-3.9 to 2.9)	14.10 (7.78) n=6	14.17 (5.03) n=6	0.1 (-5.0 to 5.2)	-0.6	0.8
TL_{lim} (secs)	152.33 (111.73) n=6	214.66 (248.43) n=6	62.33 (-236.88 to 361.55)	137.00 (58.55) n=4	157.75 (87.33) n=4	20.75 (-102.83 to 144.33)	41.58	0.9
PTP_{oes,c/Poes} max	0.230 (0.083) n=6	0.191 (0.082) n=6	-0.039 (-0.14 to 0.06)	0.242 (0.076) n=4	0.246 (0.075) n=4	0.004 (-0.10 to 0.11)	-0.043	0.9

* - statistically significant (p<0.05), n= number of patients accepted for analysis.

Table 3

Outcome measures for the ISWT pre- and post-IMT

	PrBr group		Control group		Between-groups p value
	Baseline	Post-IMT	Baseline	Post- IMT	
Distance (m)	202.5 (100.4)	218.4 (92.7)	257.2 (136.1)	260 (150.2)	0.5
B _{pre}	0.6 (0.7)	0.7 (1.0)	0.6 (0.6)	0.6 (0.8)	0.3
B _{post}	3.9 (1.2)	3.7 (1.4)	4.3 (1.8)	3.8 (1.5)	0.5
L _{pre}	0.4 (0.7)	0.8 (1.1)	0.7 (0.8)	0.6 (0.9)	0.07
L _{post}	1.8 (1.6)	1.9 (1.6)	2.9 (1.9)	2.8 (1.9)	0.8
SpO _{2pre} (%)	94.0 (1.4)	94.5 (2.3)	95.4 (1.3)	95.5 (2.0)	0.6
SpO _{2post} (%)	86.9 (7.6)	86.7 (6.5)	86.8 (7.5)	85.6 (7.9)	0.2
HR _{pre} (beats/min)	86.9 (16.0)	84.6 (11.8)	83.6 (9.1)	86.4 (11.9)	0.1
HR _{post} (beats/min)	109 (17.9)	102.8 (16.2)	107.4 (14.9)	110.5 (12.6)	0.001*

B_{pre}= Modified BORG score pre-ISWT; *B_{post}*= Modified BORG score post-ISWT *L_{pre}*: leg fatigue pre-ISWT, *L_{post}*= leg fatigue post-ISWT. *SpO_{2pre}*= Oxygen saturation pre-ISWT, *SpO_{2post}*= Oxygen saturation post-ISWT, *HR_{pre}*= Heart Rate pre-ISWT, *HR_{post}*= Heart rate post-ISWT. The Mann-Whitney test was used to compare between-group changes in variables.

*= statistically significant ($p < 0.05$). .

Table 4

Changes in health status domains

Health Status Questionnaires		IMT Group	Control group	Between group P value
HADS	Anxiety	-1.0 (2.17) (-2.1 to -0.3)	-0.3 (2.8) (-1.8 to 1.2)	0.2
	Depression	-1.1 (2.7) (-2.5 to -0.1)	0.7 (2.2) (-0.4 to 1.8)	0.02*
CRDQ	Dyspnoea	0.6 (0.8) (0.23 to 0.97)	0.4 (0.9) (-0.04 to 0.86)	0.5
	Fatigue	0.5 (1.1) (0.05 to 0.99)	0.4 (0.6) (0.09 to 0.65)	0.6
	Emotion	0.3 (0.7) (-0.08 to 0.57)	0.2 (0.4) (-0.04 to 0.36)	0.6
	Mastery	0.3 (0.6) (0.03 to 0.58)	0.2 (0.7) (-0.15 to 0.51)	0.6
SF-36	PF	-0.45 (13.7) (-6.5 to 5.6)	-0.8 (16) (-8.8 to 7.1)	0.9
	RP	5.9 (37.4) (-10.7 to 22.5)	-22.1 (32.9) (-38.9 to -5.1)	0.1
	RE	10.6 (46.4) (-9.9 to 31.2)	-27.5 (42.9) (-49.5 to -5.4)	0.02*
	SF	2.65 (24.8) (-8.7 to 14.0)	0.6 (18.5) (-8.9 to 10.1)	0.7
	MH	6.36 (12.8) (0.7 to 12.0)	-0.9 (12) (-6.9 to 5.1)	0.04*
	EV	4.29 (18.5) (-4.1 to 12.7)	-7.2 (20.5) (-17.4 to 2.9)	0.1
	P	6.35 (30.9) (-7.8 to 20.5)	0.6 (19.6) (-9.1 to 10.4)	0.7
	GHP	3.3 (14.7) (-3.6 to 10.2)	0 (10.8) (-5.4 to 5.4)	0.4
	CH	7.95 (23.6) (-2.5 to 18.4)	-8.3 (14.9) (-15.7 to -0.9)	0.02*

Data are presented as mean difference (post-pre) and SD and 95% confidence intervals. Between group p values are from a two-way ANOVA. **PF**: Physical functioning; **RP**: Role limitations due to physical problems; **RE**: Role limitations due to emotional problems; **SF**: Social functioning; **MH**: Mental health; **EV**: Energy/Vitality; **P**: Pain; **GHP**: General health perception; **CH**: Change in health. An increase in the CRDQ of 0.5 units in each subcategory is clinically significant. In the SF-36 and HADS a clinically significant change has not been reported but an increase in each SF-36 domain denotes improvement and an increase in the HADS denotes worsening of symptoms. *= statistically significant ($p < 0.05$).