

## **Online Supplement**

### **Effect of Physical Position on Peak Inspiratory Flow in Stable COPD: An Observational Study**

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**Supplementary Table 1. Baseline Demographic, Clinical, and Pulmonary Characteristics Stratified by Inhaler Device Type at Enrollment.**

| Variable                                      | R2          | R5          | R2 and R5   |
|---|-------------|-------------|-------------|
|   | n = 57      | n = 13      | n = 6       |
| Age, years                                    | 65.8 (8.89) | 62.3 (9.31) | 65.5 (5.82) |
| Race, White <sup>a</sup>                      | 52 (91)     | 10 (77)     | 4 (67)      |
| Sex, female <sup>a</sup>                      | 30 (53)     | 7 (54)      | 5 (83)      |
| BMI, kg/m <sup>2</sup>                        | 29.0 (7.29) | 27.9 (7.57) | 29.4 (7.50) |
| BMI category <sup>a</sup> , kg/m <sup>2</sup> |             |             |             |
| <18.5   | 1 (2)       | 2 (15)      | 0 (0)       |
| 18.5 to <25                                   | 20 (35)     | 2 (15)      | 2 (33)      |
| 25 to <30                                     | 15 (26)     | 6 (46)      | 0 (0)       |
| 30 to <35                                     | 10 (18)     | 1 (8)       | 2 (33)      |
| 35 to <40                                     | 8 (14)      | 1 (8)       | 2 (33)      |
| 40+   | 3 (5)       | 1 (8)       | 0 (0)       |
| Waist-to-hip ratio                            | 1.04 (0.19) | 0.99 (0.10) | 0.98 (0.12) |
| <b>Smoking status<sup>a</sup></b>             |             |             |             |
| Current                                       | 19 (33)     | 5 (38)      | 3 (50)      |
| Former  | 38 (67)     | 8 (62)      | 3 (50)      |
| Pack-years smoked                             | 62.7 (39.9) | 63.5 (40.0) | 44.8 (29.1) |
| CAT score                                     | 22.7 (7.44) | 26.0 (8.30) | 22.3 (5.4)  |
| mMRC score                                    | 2.70 (1.13) | 3.08 (0.95) | 2.67 (0.52) |
| <b>Pre-BD</b>                                 |             |             |             |
| FEV <sub>1</sub> /FVC ratio                   | 0.52 (0.11) | 0.47 (0.11) | 0.52 (0.10) |
| <b>FEV<sub>1</sub></b>                        |             |             |             |
| Absolute, L                                   | 1.26 (0.41) | 1.04 (0.46) | 1.08 (0.27) |
| % predicted                                   | 46.3 (13.7) | 37.9 (15.3) | 48.5 (18.3) |
| <b>FVC</b>                                    |             |             |             |
| Absolute, L                                   | 2.54 (0.72) | 2.16 (0.72) | 2.11 (0.63) |
| % predicted                                   | 70.8 (15.8) | 59.9 (16.7) | 69.7 (16.9) |
| <b>PIF</b>                                    |             |             |             |

|                                  |              |              |              |
|----------------------------------|--------------|--------------|--------------|
| In-Check™ DIAL, L/min            | 75.8 (10.4)  | 49.8 (9.13)  | 45.8 (3.76)  |
| Spirometry, L/min                | 187.2 (67.4) | 178.5 (63.1) | 154.9 (82.4) |
| <b>Post-BD</b>                   |              |              |              |
| <b>FEV<sub>1</sub>/FVC ratio</b> | 0.54 (0.12)  | 0.50 (0.13)  | 0.55 (0.12)  |
| <b>FEV<sub>1</sub></b>           |              |              |              |
| Absolute, L                      | 1.33 (0.42)  | 1.12 (0.51)  | 1.13 (0.28)  |
| % predicted                      | 50.5 (14.0)  | 40.8 (16.7)  | 50.8 (16.8)  |
| <b>FVC</b>                       |              |              |              |
| Absolute, L                      | 2.60 (0.75)  | 2.24 (0.82)  | 2.22 (0.67)  |
| % predicted                      | 75.1 (17.0)  | 61.8 (17.7)  | 73.2 (16.0)  |
| <b>PIF</b>                       |              |              |              |
| In-Check™ DIAL, L/min            | 81.8 (12.6)  | 54.3 (11.1)  | 57.7 (9.91)  |
| Spirometry, L/min                | 175.3 (71.0) | 197.3 (71.2) | 159.2 (95.3) |

Data are missing for spirometry testing due to the impact of the COVID-19 pandemic. n (%) with the available spirometry data includes pre-BD FEV<sub>1</sub>, FVC, FEV<sub>1</sub>/FVC (n = 56, R2; n = 13, R5; n = 6, R2 and R5), pre-BD PIF (spirometry; n = 38, R2; n = 13, R5; n = 5, R2 and R5), post-BD FEV<sub>1</sub>, FVC, FEV<sub>1</sub>/FVC (n = 45, R2; n = 12, R5; n = 6, R2 and R5), and post-BD spirometry PIF (n = 35, R2; n = 12, R5; n = 5, R2, and R5).

<sup>a</sup>n (%); other values are mean (SD).

BD = bronchodilator; BMI = body mass index; CAT = Chronic Obstructive Pulmonary Disease Assessment Test; FEV<sub>1</sub> = forced expiratory volume in 1 second; FVC = forced vital capacity; mMRC = modified Medical Research Council; PIF = peak inspiratory flow; R2 = low-medium resistance; R5 = high resistance; SD = standard deviation.