

Quality of Life Responder Rate Analysis Following Use of an Oscillating Positive Expiratory Pressure Device for Chronic Obstructive Pulmonary Disease: SGRQ v CAT Assessments

Jason Suggett
Trudell Medical International, London, Canada

BACKGROUND

- The **Aerobika*** Oscillating Positive Expiratory Pressure (OPEP) device has been reported to improve Quality of Life outcomes for COPD patients with Chronic Bronchitis^{1,2}
- This abstract compares the responder rates from two separate studies using the same device; one with the St. George's Respiratory Questionnaire (SGRQ) and the other with the COPD Assessment Test (CAT)



STUDY 1	STUDY 2
<h3>METHODS</h3> <ul style="list-style-type: none"> Randomized cross-over study in 27 COPD patients for 3–4 weeks using the SGRQ¹ Responder rates for clinically significant measures of improvement of greater than 4 were calculated for the COPD patients with Chronic Bronchitis <h3>RESULTS</h3> <ul style="list-style-type: none"> In study 1, the mean SGRQ value for the 14 COPD patients with Chronic Bronchitis significantly improved from 49 to 40 ($p=0.01$, paired t-test) following OPEP therapy 	<h3>METHODS</h3> <ul style="list-style-type: none"> Clinical assessment of 37 COPD patients over an 8 week period using the CAT² Responder rates for clinically significant measures of improvement of at least 2 were calculated for the COPD patients with Chronic Bronchitis <h3>RESULTS</h3> <ul style="list-style-type: none"> The mean CAT value for the 26 COPD patients with Chronic Bronchitis significantly improved from 19.7 to 17.4 ($p=0.01$, paired t-test) following OPEP therapy
<p>SGRQ Total Score</p> <p>49 (Initial) → 40 (Week 4)</p> <p>MCID (≥4)</p>	<p>Mean CAT scores at weeks 0, 4 and 8</p> <p>19.7 (Week 0), 18.2 (Week 4), 17.4 (Week 8)</p> <p>Individual changes in CAT score over 8 weeks therapy</p>

COMBINED OUTCOME

- In terms of responder rate analysis, using the recognized improvement thresholds noted above, 64% of the COPD patients with Chronic Bronchitis from Study 1 showed a clinically significant improvement in Quality of Life compared to 62% from Study 2



CONCLUSIONS

- Results from two separate studies, using different validated Quality of Life instruments, show good agreement
- Nearly two thirds of COPD patients with Chronic Bronchitis exhibited clinically significant improvements in Quality of Life following self-administered treatment with the **Aerobika*** device

¹ Svenningsen S, Paulin GA, Sheikh K, et al. Oscillatory Positive Expiratory Pressure in Chronic Obstructive Pulmonary Disease. Journal of COPD 2016;13(1):66–74.

² Suggett J. Review of Quality of Life outcomes following use of an Oscillating Positive Expiratory Pressure (OPEP) device for Chronic Obstructive Pulmonary Disease (COPD): 8 weeks field study using the COPD Assessment Test (CAT). Am J Respir Crit Care Med 2016;193:A6888.

