

Survey of Patients Using an Oscillating Positive Expiratory Pressure Device Indicates Improvement in Well-Being and Compliance to Therapy

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RATIONALE

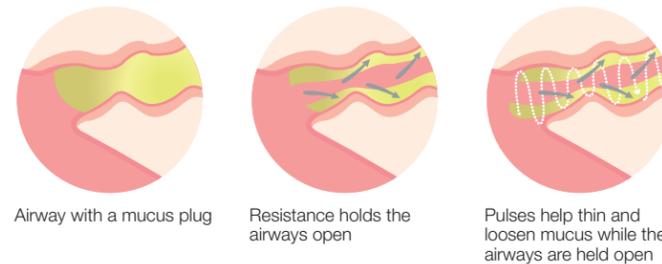
- Chronic Obstructive Pulmonary Disease (COPD) is the fourth leading cause of death in Canada and is the only chronic condition where the affected population continues to grow
- Studies have shown the **Aerobika*** Oscillating Positive Expiratory Pressure (OPEP) device to have positive patient outcomes in clinical evaluations,^{1,2} but assessment of home-based user experience was not known
- A survey was undertaken with patients to determine if using the device had any impact on patient reported outcomes, compliance, and satisfaction

BACKGROUND

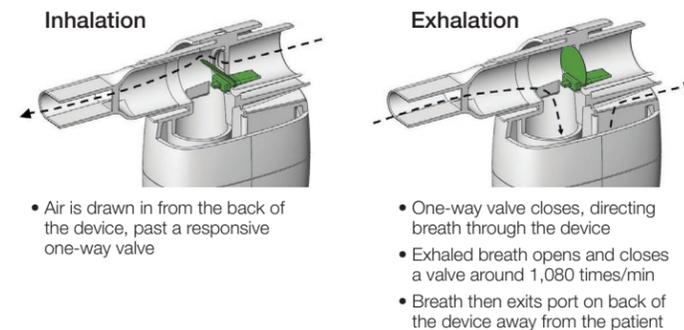
- Patients with COPD experience symptoms including breathlessness, chronic cough, excess mucus, and the inability to perform daily activities
- COPD is characterized by a number of interrelated physiological changes in the lungs
 - Airflow limitation and chronic inflammation create excess mucus within the airways
 - Airway damage inhibits the natural ability of the lungs to clear excess mucus
- Pharmacological treatments have been unable to demonstrate effect on mucus clearance³

OPEP THERAPY

- OPEP therapy is an established airway clearance technique in Cystic Fibrosis,⁴ COPD,⁵ Bronchiectasis and other respiratory conditions
- Aerobika*** OPEP's unique pressure-oscillation dynamic delivers a combination of pressure and oscillations to help move mucus to the central or upper airways where it can be coughed out
 - Positive pressure holds the airways open
 - Oscillations help thin and loosen mucus



Aerobika* OPEP device



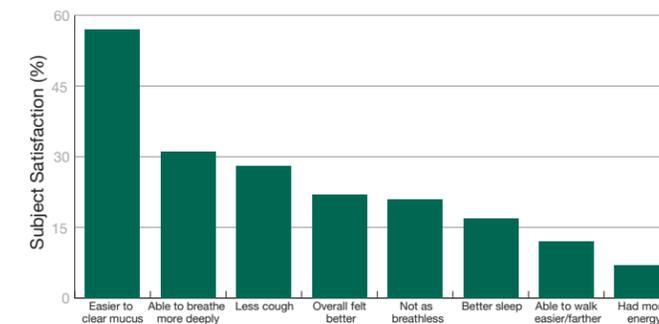
METHOD

- Patients were counselled on the proper use of the **Aerobika*** OPEP device
- Each patient was asked to use the device twice daily for at least 3 weeks prior to completing the survey
- Survey responses were captured via an online portal requiring a unique ID to prevent duplicate entries

RESULTS

- 812 unique survey responses were collected
 - 90% of patients had COPD (non-phenotyped)
 - 8% had Bronchiectasis
 - 2% Cystic Fibrosis

Benefits Experienced From Using the Device (priority ranking, respondents could chose more than one)



- Compliance to therapy was high with 97% indicating they would continue to use the device
- Patient satisfaction was 94% for the device overall with 96% finding it easy to use

CONCLUSIONS

- Results from this patient feedback survey indicate that the **Aerobika*** OPEP device has a high degree of acceptance within the COPD population because it is easy to use, helps clear mucus and reduces feelings of breathlessness
- Responses demonstrated a high degree of satisfaction with the **Aerobika*** OPEP device, specifically in assisting with mucus clearance and decreased breathlessness
 - May lead to better therapeutic benefit
- The addition of the **Aerobika*** OPEP is associated with improved symptom relief

References

- Svenning *et al.* Hyperpolarized 3He magnetic resonance imaging following oscillatory positive expiratory pressure treatment in GOLD stage II & III COPD. Presented at ATS 2013.
- Svenning *et al.* Oscillating Positive Expiratory Pressure Therapy in Chronic Obstructive Pulmonary Disease and Bronchiectasis. Presented at ERS 2014 (Munich, Germany).
- Patt *et al.* Journal of Aerosol Medicine 1990;3(3):187-196. Hogg JC *et al.* American Journal of Respiratory and Critical Care Medicine 2007;176(5):454. Burgel PR *et al.* European Respiratory Journal 2004;24(4):594-600. Ramos FL *et al.* International Journal of COPD 2014;9:139-150. Pavia D *et al.* European journal of respiratory diseases 1983;128(Suppl):304. Hasani A *et al.* CHEST 2004;125(5):1726-1734. Baraniuk JN *et al.* Clinical & Experimental Allergy Reviews 2010;10(1):12-19. Rogers D *et al.* Annals of medicine 2006;38(2):116-125. Salathe M *et al.* CHEST 1996; 110(4):1048-1057. Poole PJ. International Journal of Chronic Obstructive Pulmonary Disease 2006;1(2):123 Rogers DF. Pulmonary Pharmacology & Therapeutics 2005;18(1):1-8.
- Marks Paediatr. Respir. Rev. 2007;8:17-23.
- Strickland Respi. Care. 2013;58(12):2187-93.



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