



# Simeox

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## Indication

The SIMEOX therapy provides effective and comfortable airway clearance for patients suffering from chronic lung diseases (such as Cystic Fibrosis, Bronchiectasis, COPD) having lung congestion and difficulties to mobilize their mucus.

## Technology

- **SIMEOX features a unique technology having a direct action on the viscosity of the mucus:**  
SIMEOX generates non-invasively during patient exhalation through a mouthpiece, a succession of very short air depressions disseminating throughout the bronchial tree a pneumatic vibratory signal. The effect is a transient modification of the rheology of the mucus, reducing its viscosity and improving its mobilization toward higher bronchial tree. Mobilized mucus is then expectorated through natural cough.
- SIMEOX development is based on 5 years of fundamental research in partnership with prestigious research centers and university hospitals about the behavior and physical properties of the bronchial mucus.
- The SIMEOX technology allows a more distal drainage of the mucus without increasing the fatigue of the patient, as the device is used in total relaxation.
- Compared to oscillating PEP devices, SIMEOX delivers a more consistent and specific signal that impacts the rheology of the bronchial mucus.
- Unlike other airway clearance instrumental aids such as IPPV or Mechanical In-Exsufflation, the SIMEOX device does not deliver any continuous flow, in order to reduce the risk of bronchial collapsus.

## Product benefits

- › Liquefy and transport bronchial mucus, even from the very distal parts of the lungs
- › No increase of the patient fatigue
- › Reduced risk of bronchial collapsus
- › No side effect, very few contraindications
- › Safe and easy to handle / Easy to learn
- › Hygienic concept with exhalation-kit replacement
- › Has ergonomics for being used by the patient himself (autonomy in airway clearance management) or in addition to the physiotherapist's intervention



## Clinical outcomes

- › Improvement of lung function characteristics such as FEV1 and FVC <sup>1,2</sup>
- › Improvement of the quality of life in COPD and Bronchiectasis as assessed by the CAT score <sup>1,2</sup>
- › Improvement of exercise capacity in Bronchiectasis, as assessed by 6MWT <sup>1</sup>
- › Improved symptoms<sup>1,2</sup> and secretion clearance <sup>3</sup>
- › High subjective effectiveness in Simeox performance vs. conventional physiotherapy <sup>3</sup>

<sup>1</sup> Benefits of Simeox airway clearance technology in non-CF patients with bronchiectasis, Iwan et al., ERJ September 2018, 52 (Supplement 62)

<sup>2</sup> Effects of a new Airway Clearance Technology versus manual physiotherapy in COPD, Mihaltan et al., ERJ September 2018, 52 (Supplement 62)

<sup>3</sup> SIMETOL clinical study report, November 2018

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Read the instructions in the user manual carefully before using the device.