

# Non-Invasive Positive Pressure Ventilation (NPPV).

A guide for healthcare professionals.



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## NPPV in patients with chronic COPD

Research studies have investigated the benefits of non-invasive positive pressure ventilation (NPPV) to mechanically assist or replace spontaneous breathing in patients with chronic obstructive pulmonary disease. The most convincing evidence comes from a study by Thomas Köhnlein et al<sup>1</sup>, among patients with chronic hypercapnic COPD.

Köhnlein's research, which targeted a marked reduction in hypercapnia, found that, alongside standard COPD treatment, NPPV can improve patient survival and deliver other benefits.

## Indications for NPPV

NPPV can be beneficial for patients with stable GOLD Stage IV COPD and PaCO<sub>2</sub> of 7 kPa (51.9 mm Hg) or higher and pH higher than 7.35.<sup>1</sup>

Ventilator settings should be set in pressure support ventilation mode and ventilation performed with high backup rates to achieve

controlled ventilation. Settings should be individually tailored according to body constitution, airway obstruction, and compliance of the lungs and the thorax to achieve a maximum PaCO<sub>2</sub> reduction in all patients.

## Patient benefits and outcomes

With a mean NPPV usage of 5.9 hours per day, patient benefits include improved overall survival, and exercise capacity. Secondary outcomes include significant improvements in PaCO<sub>2</sub>, pH, bicarbonate, FEV<sub>1</sub>, and health-related quality of life (HRQL).



## Our NPPV service

We form strong partnerships with clinicians to provide a single point of call for homecare support among COPD patients, helping improve patient outcomes and ensure that healthcare resources are used as effectively as possible.

Using quality equipment from leading manufacturers and following the care pathways set out by the local healthcare organisation, our expert teams draw on global expertise and experience to provide the following:

- Equipment installation
- Mask fitting
- Patient and carer training
- Therapy and disease education
- 24/7 helpline
- Regular equipment maintenance
- Follow up visits
- Compliance monitoring and support

## Continuity of care

Through close collaboration with clinical teams, our teams provide a successful transition to the home, ensuring continuity of long term care. With expertise gained from operations across the globe, our services are delivered in the most cost effective way possible, optimising outcomes and maximising the use of resources.

1. Non-invasive positive pressure ventilation for the treatment of severe stable chronic obstructive pulmonary disease: a prospective, multicentre, randomised, controlled clinical trial, Thomas Köhnlein, et al. The Lancet Respiratory Medicine, Volume 2, Issue 9, September 2014, Pages 698-705. <http://www.sciencedirect.com/science/article/pii/S2213260014701535>.

# Linde Healthcare in homecare.

Linde Healthcare is a homecare partner trusted by prescribers in more than 40 countries worldwide. We are dedicated to using proven therapies to secure the best possible patient outcomes. We work closely with prescribers, payers and patients to ensure continuity of care. Our medical knowledge and technical capabilities enable us to provide competent support at every stage – from diagnosis and planning to ongoing services, patient education and follow-up.

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