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European Respiratory Society guidelines on long-term home non-invasive ventilation for management of COPD

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Managing hypercapnia may be an important intervention for improving outcome of COPD patients with chronic respiratory failure. Long-term home NIV may improve health outcomes by targeting a reduction in CO₂ in those with hypercapnic respiratory failure. <http://bit.ly/2NIA3eG>

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ABSTRACT

Background: While the role of acute non-invasive ventilation (NIV) has been shown to improve outcome in acute life-threatening hypercapnic respiratory failure in COPD, the evidence of clinical efficacy of long-term home NIV (LTH-NIV) for management of COPD is less. This document provides evidence-based

recommendations for the clinical application of LTH-NIV in chronic hypercapnic COPD patients.

Materials and methods: The European Respiratory Society task force committee was composed of clinicians, methodologists and experts in the field of LTH-NIV. The committee developed recommendations based on the GRADE (Grading, Recommendation, Assessment, Development and Evaluation) methodology. The GRADE Evidence to Decision framework was used to formulate recommendations. A number of topics were addressed under a narrative format which provides a useful context for clinicians and patients.

Results: The task force committee delivered conditional recommendations for four actionable PICO (target population-intervention-comparator-outcome) questions, 1) suggesting for the use of LTH-NIV in stable hypercapnic COPD; 2) suggesting for the use of LTH-NIV in COPD patients following a COPD exacerbation requiring acute NIV 3) suggesting for the use of NIV settings targeting a reduction in carbon dioxide and 4) suggesting for using fixed pressure support as first choice ventilator mode.

Conclusions: Managing hypercapnia may be an important intervention for improving the health outcome of COPD patients with chronic respiratory failure. The task force conditionally supports the application of LTH-NIV to improve health outcome by targeting a reduction in carbon dioxide in COPD patients with persistent hypercapnic respiratory failure. These recommendations should be applied in clinical practice by practitioners that routinely care for chronic hypercapnic COPD patients.