NIV therapy reduces the risk of death by 76% in chronic COPD patients over one-year\(^1\)

**Control Group** 33.3%

**NIV Group** 11.8%

**Relevance to clinical practice**
Stable, chronic, hypoxaemic COPD patients can significantly benefit from NIV treatment in terms of reduced mortality and improved... 
- by using an adequate dose pressure and usage of ventilation 
- and focusing on reducing PaCO\(_2\) as the clinical target.

**Study design**
- Investigational, initiated, prospective, multicentre 
- Germany, Austria, randomised controlled trial of 195 patients (100 labor but 95 randomised).
- Stable COPD, stage IV COPD and a partial pressure of carbon dioxide (PaCO\(_2\)) of 7 kPa (55 mm Hg) or higher and pH lower than 7.35 (free acidity) measured within at least one hour rest in a sitting position.
- Patients were randomised to:
  - a control group who received standard treatment at a level of 12 months.
  - a treatment group who received NIV for at least 12 months.

The primary outcome was one-year all-cause mortality and endpoint was intention to treat.

**98 assigned to receive standard COPD treatment and LTOT if indicated (control group)**
- 197 received allocated intervention
- 3 started NPPV during exacerbation and remained on NPPV
- 83 included in primary analysis
- 102 included in primary analysis

**102 assigned to receive standard COPD treatment and LTOT if indicated, and NPPV (intervention group)**
- 157 excluede
- 131 did not meet inclusion criteria
- 28 declined to participate
- 195 randomised

**Better quality of life**
- Using the St George’s Respiratory Questionnaire, patients treated with NIV reported that their quality of life was 5.8 points higher than patients treated without NIV (Bonferroni).

**PaCO\(_2\) (p<0.0001)**

- Baseline
- 12 Months
- 24 Months
- 36 Months
- 48 Months
- 60 Months
- 72 Months

- Control group
- Intervention group
- 95% Confidence Interval