What Are the Effects of Low-Dose Morphine on Sleep Efficiency and Other Sleep Parameters in COPD?

STUDY DESIGN

- Randomized, double-anonymized, crossover trial
- 20 mg/day sustained-release morphine for 3 days vs placebo
- Participants: People with COPD who are breathless
- Primary outcome: Sleep efficiency during in-laboratory overnight polysomnography

RESULTS

Morphine:

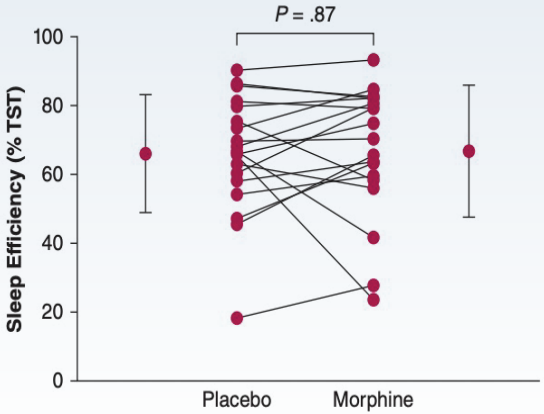
- Reduced breathing frequency
- Reduced mean and nadir overnight O_2 saturation
- Increased nocturnal hypoventilation

- No difference in impaired next-day driving simulator performance

- Increased adverse events (most frequently nausea)

No difference in:

- Sleep-disordered breathing
- Sleep efficiency



Our results showed that steady-state, low-dose morphine does not change sleep efficiency, sleep-disordered breathing frequency, or next-day alertness but may cause hypoventilation during sleep, a potentially harmful effect.

Altree TJ, et al. *CHEST* June 2025 | @journal_CHEST | https://doi.org/10.1016/j.chest.2024.11.040