

Does Palliative Home Oxygen Improve Dyspnoea? A Consecutive Cohort Study

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Palliat Med. 2009 Jun;23(4):309-16. Epub 2009 Mar 20. Currow DC, Agar M, Smith J, Abernethy AP.

ABSTRACT

Palliative oxygen for refractory dyspnoea is frequently prescribed, even when the criteria for long-term home oxygen (based on survival, rather than the symptomatic relief of breathlessness) are not met. Little is known about how palliative home oxygen affects symptomatic breathlessness. A 4-year consecutive cohort from a regional community palliative care service in Western Australia was used to compare baseline breathlessness before oxygen therapy with dyspnoea sub-scales on the symptom assessment scores (SAS; 0-10) 1 and 2 weeks after the introduction of oxygen. Demographic and clinical characteristics of people who responded were included in a multi-variable logistic regression model. Of the study population (n = 5862), 21.1% (n = 1239) were prescribed oxygen of whom 413 had before and after data that could be included in this analysis. The mean breathlessness before home oxygen was 5.3 (SD 2.5; median 5; range 0-10). There were no significant differences overall at 1 or 2 weeks (P = 0.28) nor for any diagnostic sub-groups. One hundred and fifty people (of 413) had more than a 20% improvement in mean dyspnoea scores. In multi-factor analysis, neither the underlying diagnosis causing breathlessness nor the demographic factors predicted responders at 1 week. Oxygen prescribed on the basis of breathlessness alone across a large population predominantly with cancer does not improve breathlessness for the majority of people. Prospective randomised trials in people with cancer and non-cancer are needed to determine whether oxygen can reduce the progression of breathlessness compared to a control arm.

Strengths

- Begins with a large starting size of 5,862, which eventually included 413 people on oxygen therapy.
- Looked at quality of life scores using the SAS, which is exactly what Edmonton uses.
- Addressed an important question with large impact on community resources and ability for people to 'die at home'.

Weaknesses

- No placebo group, randomization, or control group.
- No mention of what criteria was used to prescribe oxygen for the 413 patients.
- No lab analysis of PaO₂s, or oxygen saturations.

Relevance to Palliative Care

Breathlessness is an extremely common problem in the palliative setting. Home oxygen is used for people with COPD who meet the criteria (usually PaO₂ levels) but the role of oxygen therapy for symptomatic relief in the palliative setting is much more ambiguous. Treating dyspnea at home with oxygen could potentially save millions of healthcare dollars if it prevents hospital/hospice admissions. However using oxygen where no benefit exists could be very expensive given the cost of oxygen. A good RCT investigating the topic would be beneficial.