Title: Utility scores in patients with oxygen-dependent COPD: A case-control study

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Body: Background: The comparison of health-related quality of life among patients with different chronic health conditions is essential to the prioritization of limited health resources from cost-effectiveness analyses. To do so, utility measures summarize the health-related quality of life of an individual using a single number usually between 0 (death) and 1 (full health) and are useful to quantify the benefits of health care interventions in terms on quality-adjusted life years (QALYs). Objective: To determine utility scores in patients with oxygen-dependent COPD to be used in cost-utility analyses. Methods: 68 patients with oxygen-dependent COPD (the cases) were matched, on a 1:1 basis, to controls according to gender, age (±5 years) and FEV1 (±5% predicted). Utility scores were obtained from the SF-6D, a measure derived from the SF-36. Results: 68 oxygen-dependent patients (42 men; mean age: 71 years; mean FEV1: 36% predicted) were successfully matched with as many controls. We found a clinically and statistically significant difference in mean utility scores between cases (0.59 ± 0.07) and controls (0.62 ±0.08; p = 0.004). The same differences were observed in men and women. Conclusion: Oxygen-dependence adds to the burden of disease in terms of quality of life. These utility scores can be used in cost-utility analyses involving patients with oxygen-dependent COPD.