Reviewer's report

Title: Anemia and hemoglobin serum levels are associated with exercise capacity and quality of life in chronic obstructive pulmonary disease

Version: 2 Date: 7 December 2014

Reviewer: donald S silverberg

Reviewer's report:

Line 134 strength
Line 137 with
Line 174 with respect
Line 175 although
Line 176 in bivariate
Line 187 neither not either
Line 186-188 not clear
Line 195 to 197 not clear
Line 204 less
Line 261 would lead to
Line 279 does not let us establish

Do you have data on the relationship with renal function as judged by serum creatinine or corrected creatinine clearance?

We think a comment should be made about anemia correction in COPD

Your results are consistent with the findings of others who treated anemia in COPD with either anabolic steroids (1) or blood transfusions (2,3) and showed improvements. The study involving the use of anabolic steroids in COPD (1) showed that the improvement in the Hb that was found was associated with an improvement in pulmonary function as judged by maximal inspiratory mouth pressure and peak workload. In another study, transfusion of a mean of 2.2 units of packed cells in 10 anemic COPD patients in an intensive care unit was shown to lead to a significant reduction of both minute ventilation and work of breathing (2). In a second study by the same group (3 ), blood transfusions allowed five anemic COPD patients in whom trials of weaning from a respirator before the transfusions had been unsuccessful, to be successfully weaned after the transfusions. In a fourth study (4) anemia was found to be common in hospitalized COPD patients, was frequently associated with iron deficiency, was poor investigated and rarely corrected. When corrected however by intravenous iron and Erythropoietin an improvement in Quality of Life was reported.

1 Creutzberg EC, Wouters EF, Mostert R, Pluymers RJ, Schols AM . A role for


**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

'I declare that I have no competing interests'