Reviewer's report

**Title:** Multidimensional analysis to assess the relations between treatment choices by physicians and patients' characteristics: the example of COPD

**Version:** 1  **Date:** 2 June 2012

**Reviewer:** Paul Jones

**Reviewer's report:**

The underlying hypothesis for this study must have been that physicians prescribe specific treatments for specific clinical types/severity groups. Yet the analysis was in many respects the antithesis of a hypothesis-driven exercise, it used different methods to test an association between different patterns. Only a very weak association was noted.

**Discretionary Revisions**

1. Did the sponsors of this study expect any different, bearing in mind their detailed knowledge of the different patterns across Europe? Confining the study to one country may have accounted for some of these between country differences, but clearly there is great and unexplained heterogeneity in treatment of COPD.

2. It has been hypothesised that response to treatment constitutes a specific treatment phenotype. Do the authors think that their findings refute that hypothesis, since their finding barely show an association between treatment intensity and disease severity?

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.