Reviewer’s report

Title: Impact of risk factors and activities on the health status of patients with chronic obstructive pulmonary disease in China.

Version: 1 Date: 18 June 2012

Reviewer: Alejandro Videla

Reviewer’s report:

- Major Compulsory Revisions

GENERAL COMMENTS

1. The paper describes the results of a population-based cross-sectional survey of COPD patients in a rural area of China. The main objective of the study was to describe vulnerability of COPD using a questionnaire of 50 items designed by the authors from several sources and the severity of COPD using a validated score (ADO, age dyspnea and obstruction). However the objective of the study is not clear from the title, abstract or method sections in which the authors use the concepts of vulnerability and COPD severity in an interchangeable way. The abstract and the results section should be corrected to reflect that the ADO index measures COPD severity and a newly designed questionnaire was used to measure vulnerability (or quality of life as I believe is the case).

2. The abstract contains no numeric data to support the conclusions, using only descriptive language (ie.: quite high).

3. The authors never define what they consider vulnerability. In another paper of the same authors http://www.biomedcentral.com/content/pdf/1471-2458-12-287.pdf the term is employed to describe lack of knowledge of the disease, or economic impact of the disease. In the above mentioned paper vulnerability seems an adequate word, but in this case the questionnaire measures impact on quality of life (QOL), which is a term more widely understood, and also the primary objective of the questionnaires employed. The authors in the introduction section state they set out to explore something wider than QOL, but only the domain on table 4 refers to something not included in the QOL concept. The authors should elaborate on this in the introduction and discussion sections.

4. If the primary focus of the study was to correlate QOL and COPD severity, this association has been widely explored in previous literature. The authors should elaborate on the discussion the potential interest of their results. They should also explain why they didn’t use the BODE index which is widely used among practitioners.

5. The two questionnaires were designed and validated in languages different from the Chinese. Translation and validation process should be clearly explained in the methods section.
6. It is not clear in the methods section how the 8217 COPD patients were identified. Every randomized person of the population had a complete medical record including spirometry? The methods section suggest that only the previously identified patients with COPD were subjected to spirometry. The authors should discuss how they were able to identify and reach the target population.

7. Were patients with asthma identified and excluded? The paper has no information on inclusion and exclusion criteria for patients.

8. Likewise, after the authors state they reached 8217 patients for a face to face interview, they state they sent out 7682 questionnaires and all were returned, as if they were mail questionnaires. Was the study conducted in two phases? The method section should be more clear on this. The companion paper by the same group describes two sequential surveys, and as the numbers are equal, this is probably the case.

9. Table 1: Present % of patients in each Dyspnea and VEF1 ground and means for each group instead of sum

10. The description of smoking behavior as behavioural vulnerability is questionable. Probably a better title of the section could be Smoking in the studied population. Smoking is not per se a behavioural vulnerability, the fact that the patients were smoking still as they had a diagnosis of COPD is an important issue and the authors should rephrase on this. The paragraph should be more clear if the cookers group had COPD only attributable to biomass cooking or how many of them were also smokers.

11. Section on vulnerability to self-assessed strength says that only a minority of the patients had a realistic sense of their health status. Which is the real standard? Do the authors mean that ADO indexes indicated an important impact on their health while the patients did not perceive it? Explain this in more detail

12. Table 2 “The same as common people” would probably be clearer as if stated as “Same as other people”

13. Table 3, 4 and 5. While the results of variables are presented as n and % (absolute values), assessment score is presented as a mean. Explain if the questionnaire included a yes/no question on a scale for each domain or which value was considered positive and present the results in a coherent way. The column for total is unnecessary, move mean values for assessment score and ADO to the results section.

- Minor Essential Revisions

1. Background first paragraph “death toll is more” could be replaced with “amounts to, is higher than…”

2. Figure 1 “old or above 40” could be replaced with # 40 years old.

3. Questionnaire design second paragraph “..including normal people”. The meaning is unclear.

4. Measurement of general characteristics: features is used more frequently.
“Smelling tobacco smoke” can be replaced with “inhaling or being exposed to other people’s smoking”
5. Results. General characteristics. Average seems to be used instead of mean.
6. Caption of Table 1. MRC scale instead of MRC alone.
7. Discussion instead of discussions as title section
8. Discussion section, first paragraph: COPD patients or subjects instead of “sufferers”
9. Discussion section: second paragraph Tobacco use or addiction instead of habit.
11. Discussion section: second paragraph “reduce risk” instead of “terminate”.
12. Table 3: “severe” instead of sever.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

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

**Declaration of competing interests:**
I declare that I have no competing interests