Reviewer's report

Title: Prediction of Pneumoconiosis Risk and Identification of High Risk Group in Coal Miners Based on Occupational Histories by Neural Network: a retrospective cohort study

Version: 1 Date: 29 May 2009

Reviewer: Vinicius Antao

Reviewer's report:

-- Major compulsory revisions --

-Background
First paragraph, line 2: CWP is caused by inhalation of coal mine dust (which may contain silica), but not silica alone (which causes silicosis), as suggested by the first sentence.

Second paragraph, lines 5, 6: the statement that chest radiographs are not “efficient to perform” needs further explanation or reference. This technique has been used for many years in different countries as the method of choice for CWP surveillance.

Last paragraph, lines 4-7: these conclusions do not belong in the introduction.

-Methods
Study settings
First paragraph: to better understand the risks involved in this particular mine, it would be helpful to see more details about the operation, such as type of coal mined, mining technique (longwall?), etc.

Study population
End of first paragraph: the sentence “Coal miners would be defined as combining…” is hard to understand.

-Discussion
First paragraph, lines 6, 7: reference 25 is about silicosis, not CWP, and therefore does not belong in this context.

Second paragraph, lines 5-9: cumulative dose exposure is usually estimated by weighting the 8-hour TWA exposure for a given job held by the worker by length of time (in years) spent at that job. From the methods section it is not clear if dust measurements are available. This would be the plausible justification to why cumulative dose exposure was not calculated, not the fact that workers changed jobs, as stated in this section.
-- Minor Essential Revisions --

-Background

First paragraph, line 9: The sentence “However, CWP…” should be deleted. This is piece of information is already presented above.

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'