Reviewer’s report

Title: Lung cancer mortality of residents living near petrochemical industrial complexes: a metaanalysis

Version: 1 Date: 09 Aug 2017

Reviewer: Andrew Watterson

Reviewer's report:

The authors assess clearly most of the observations, but one major point remain unclear. It regards the Assessment of data quality.

The authors classify six of the selected studies as cohort studies (new table 1) and define the assessment of their quality using the Newcastle-Ottawa quality assessment scale. Nevertheless, reviewing the methods of these studies, it seems that five of them are based on an ecological small-area design.

How the authors adapt the Newcastle-Ottawa method, that seems applicable only to case-control and cohort studies, to assess the quality of small-area studies? It is not clear if it is possible and convenient to combine results from studies with case-control, cohort, and small-area design in a formal meta-analysis.

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