Reviewer's report

**Title:** Automated comparison of last hospital main diagnosis and underlying cause of death ICD10 codes, France, 2008-2009

**Version:** 2  **Date:** 20 September 2013

**Reviewer:** Robert Anderson

**Reviewer's report:**

This is an interesting and innovative use of automated mortality coding systems. The comparison of medical diagnoses with underlying cause of death has the potential for more refined measures of health care outcomes and quality.

**Minor Essential Revisions**

1. P. 4, first paragraph, last sentence - I think this sentence needs to be revised for clarity. It is unclear if the average of 3.4 conditions includes the UCD or is addition to the UCD. I think the authors mean including UCD.

2. P. 5, first paragraph - the details on definition of MD in France need to be included in this paragraph. Appendix 2 is short and could easily be incorporated. It is important that the reader have this information readily available and not in the supplementary material.

3. P. 6, first paragraph - I'm not sure exactly what "diseases of neuro-sensorial" refers to. Is this Chapter VI, Diseases of the nervous system or a combination of chapters VI and VII? If just VI, then the chapter title should be used (here and elsewhere in the paper). In any case, it would be helpful here to indicate exactly which chapters are being referred to, e.g., neoplasms (Chapter II), circulatory (Chapter IX), etc.

**Discretionary Revisions**

4. P. 4, 3rd paragraph - suggest moving the information from Appendix 1 into this paragraph.

5. P. 5 - descriptions of "similarity" and "acceptable sequence" - suggest adding 1 or 2 additional examples. This will provide some added clarity as to the meaning of the key indicators.

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

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

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