Reviewer's report

Title: Hospital admissions for vitamin D related conditions and subsequent immune mediated disease: record-linkage studies

Version: 1 Date: 24 June 2013

Reviewer: George Zhang

Reviewer's report:

This is a very interesting manuscript.

1. Page 5,
"the unadjusted associations are provided in the supplementary table"
None of "supplementary table" is available.

2. Page 6, Statistical methods
What statistical software was used to conduct the data analysis?

3. Page 7, 2nd paragraph under section RESULTS"
"myxoedema after hospital admission for vitamin D deficiency (Table 2)."
But, page 9
Table 2 title "rates following admission for rickets, osteomalacia or vitamin D deficiency, all combined,"

4. Page 7, last second paragraph
The table referenced seems wrong or typo.
"after hospital admission for osteomalacia (Table 3)."
--> after hospital admission for osteomalacia (Table 4).

5. Page 7, last paragraph
The table referenced seems wrong.
"after hospital admission for rickets (Table 4)."
--> "after hospital admission for rickets (Table 3)."

6. Page 8, first paragraph
"after hospital admission for either vitamin D deficiency, osteomalacia or rickets (Table 5)."

But, page 12
Table 5 title "rates following admission for vitamin D deficiency,"

7. Page 8, Table 1
Please explain - why the numbers of reference cohorts were slightly different among rickets, osteomalacia or vitamin D deficiency, e.g., although all > 8.6 millions.

How did you address missing data? What are the implications of that in interpreting the results?

8. Page 14, DISCUSSION
"we have provided exact p values so that readers can judge where p values are extreme: for example, with p values as high as <0.001"

The use of "Exact p values" referenced above was confused:
8a. Was its estimation from an specific EXACT statistical test?
8b. A "p value < 0.001" is not reporting an EXACT number.

Quality of written English: Acceptable

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

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