Reviewer's report

Title: Relationship between efficiency and clinical effectiveness indicators in an adjusted model of resource consumption: a cross-sectional study

Version: 3 Date: 2 February 2013

Reviewer: Richard Glazier

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Major Compulsory Revisions

1. Clarify Risk Index (RI). The current paper defines RI as “...the ratio between average expected visits and average number of visits”. In the footnote to Table 4, The RI is “computed as expected visits divided by the average number of visits in the whole population”. The Results state “The RI obtained from the distribution of ACG in each centre...”. Using the ratio of visits to expected visits to define risk is very confusing and makes it difficult to distinguish RI from visits EI which is the ratio of observed to expected quantity of visits. The mean relative weight makes the most sense as a measure of case-mix and risk.

2. Provide more details of how the process and outcome indicators were collected and how the synthetic index (SI) was constructed. For example, were process and outcome measures taken directly from the electronic records or were they extracted in some other way? How were judgements made about the whether the indicator had been met? Was the SI based on equal weighting of all 20 factors or was some other method used? The methods appear in reference 19 but it is an unpublished technical report that has no website address (url). On examining the full report, it only defines each indicator and does not describe how it is collected or how scoring of the index is done.

Minor Essential Revisions

3. It would be important to add the total study population to Table 3 for comparative purposes.

Discretionary Revisions

4. It would be very helpful to add a total to Table 3.

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 have no competing interests.