Reviewer's report

Title: interRAI Home Care Quality Indicators

Version: 1 Date: 20 May 2013

Reviewer: Graziano Onder

Reviewer's report:

This is an important study focused on Quality Indicators (QI) for home care. Authors select most relevant QI for home care and create a summary measure to assess quality of care. This process is based on different steps: 1. Selection of QI; 2. Adjustment process (prevalence of QI is adjusted for covariates); 3. Creation of a summary QI scale.

The first step (selection of QI) leads to the selection of 23 QI from an original list of 64. QI are selected based on a. prevalence (QI with overall prevalence < 3% are excluded); b. discussion with providers; c. discussion within InterRAI group (only QI approved by 70% of InterRAI members are included in the final list). About this first step, several issues should be clarified:

1. The original list of 64 QI should be provided and reasons for exclusion (either a., b. or c.), leading to the selection of 23 QI, should be listed;
2. QI related to the organization of the HC service (i.e. patients/nurse ratio) are not considered in the study. Reasons for excluding these QI should be mentioned.
3. Most relevant limitation of this selection process relates to the fact that it is mainly related to consensus or expert opinion (point b. ‘discussion with providers’ and point c. ‘discussion within InterRAI group’). Was clinical relevance of the considered QI assessed during the selection process (data linking QI with clinical outcomes)?
4. 7 QI are excluded because of a prevalence < 3% in the overall sample. However prevalence of QI can widely vary depending on country. Therefore it would be reassuring to demonstrate that prevalence of these QI does not vary widely in the 3 geographic areas (Europe, Canada and US) considered in the study;
5. Point b. (selection of QI based on discussion with providers) is poorly defined in the manuscript and it is not clear how many providers were interviewed, who are them (MD? Nurses? Else?) and which criteria were used to ‘evaluate the candidate measures’ based on the interview.
6. Also point c. (selection of QI based on approval from InterRAI group members) is poorly defined. Were members asked to rate their approval? Was there a specific question(s) they had to answer?
7. It is definitely surprising to see that relevant QI are not included in the final list. For example a large body of research (also performed by InterRAI fellows) has
focused on use of antipsychotics, indwelling catheter use, polypharmacy. These are certainly relevant clinical QI which deserve attention. At the opposite 3 QI on pain are selected in the final list. Did InterRAI fellows exclude the above mentioned QI from the final list? How was this process performed?

The second step (adjustment process) is well performed and I do not have relevant comments about it. My only suggestion relates to the length of the section entitled ‘The adjustment process’ which can be substantially shortened.

Data
8. Data analyses are performed in a huge sample of more than 300,000 home care clients from Europe, US and Canada. This sample is poorly defined and a more in-depth description of methodology of home care clients and services recruitment, inclusion and exclusion criteria, assessment procedure (who performed the assessment?) and ethical issues (including informed consent) is needed.

9. Prevalence of quality indicators on pain is somehow surprising. Based on data in figure 4, in the US sample proportion of ‘daily severe + pain’ exceeds 25%, but proportion of ‘pain not controlled’ is about 5%. How is this possible? Can daily severe pain be considered differently than ‘pain not controlled’?

Other issues:
10. The introduction section should more clearly state the aims of the paper and the reasons for creating a summary measure.

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

**Quality of written English:** Acceptable

**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