Reviewer's report

Title: Sedative load of medications prescribed for older people with dementia in care homes

Version: 1 Date: 14 August 2011

Reviewer: Heidi Taipale

Reviewer's report:

Dear authors, the following comments need to be taken into account if you decide to revise this manuscript;

General remarks

The study determined prevalence of sedative load in residential care home residents which is valuable addition to the current research focusing on sedative load in long-term care facilities and among community-dwelling older people. Also, pattern of psychotropic drug use in this population adds to current research. However, the authors need more precision in their medication related definitions, and description of medication administration charts as a source of medication data.

Major Compulsory Revisions

Background

1. Sentence in the second paragraph: “The over-use of psychotropic drugs (antipsychotics, hypnotics and anxiolytics)…” implies that antidepressants are not included in the definition of psychotropic drugs. This is not consistent with Methods section.

Methods

2. Major methodological question is description of “medication administration records”. What are those, who administers medications, staff? For determination of drug use, were those records screened for a day or for a time period, like a week for this study?

3. How was regular use of a medication defined?

4. Did participants were asked written consent to participate in the study?

5. How were comorbidities determined, from medical records?

6. Standardize use of term “hypnotics” or “sedative-hypnotics” if the meaning is the same.

7. Definition of primary sedatives is unclear. Do you mean Group 1 drugs as in the sedative load model, or hypnotics and anxiolytics (page 10, results)?
Results

8. In the methods, it is stated that all 115 residents had dementia. Sentences “At baseline, eighty-six had a recorded diagnosis of dementia in their care home notes… According to care home notes, a specific cognitive test such as the Mini Mental State Examination had been administered for 23 residents” are unclear. How other 115-86= 29 residents were diagnosed? For those 23 who had been administered MMSE, was the test result indicative of cognitive decline?

9. This study analyzed medication administration charts as a source of drug use data. Authors should consider do these medication administration charts describe “prescribed medications” or “actually used medications” because often all prescribed medications are not used by a patient. Now, the wording used in the manuscript is “prescribed medications”.

Minor Essential Revisions

1. Currently, in the abstract, there is no mention of prevalence of antipsychotic prescription in the abstract which would be of interest for the readers.

2. Please, standardize writing style of “Sedative Load Model/ sedative load model” throughout the manuscript.

3. Were there any differences between participants and non-participants?

4. In results, paragraph starting with “prescribing of regular medications is outlined in Table 3” should be divided into sub-paragraphs, for example the second starting with antidepressant use, and the third starting with hypnotics and anxiolytics.

5. In results, sentence “Prescribing of antidepressants across the care homes was similar” is misleading (page 11). If this sentence is comparing prescribing at time-point 3, then prescribing varies from 25% to 64,3% according to Table 3.

6. “Whilst some studies have reported that patients with dementia are frequent users of antipsychotics and hypnotics [20,40], this study found that across all care homes, residents were more frequently prescribed antidepressants and less routinely prescribed antipsychotics and hypnotics and anxiolytics.” Please mention that one reason for this difference may be that previous studies have measured both regular and when-required medication use.

7. In results, the sentence “However, in care home 2, primary sedatives were not prescribed (Table 5).” However, Table 4 indicates that at time-point 3, there are users of TCAs (6.3%). Again, be consistent with definition of primary sedatives.

8. Sentence in the discussion, “These medications, which are classified as primary sedatives, contributed extensively to the resident’s sedative load score and may have negatively impacted on their health and well-being” seems too overall.
9. In discussion, “Previous studies have reported that patients with dementia were most frequently prescribed antipsychotics…”, does this mean that “of psychotropic drug groups”?

10. Consider that trazodone may also be used for treatment of insomnia which may explain some differences across care homes (low use of hypnotics but high use of trazodone).

11. In Table 4, can you add % of users of each drug class (antipsychotics, antidepressants etc.)?

12. In Table 5, “trazadone” should be changed to “trazodone” to be consistent with the text.

13. In Table 5, “For residential care home residents with dementia” to the title of the table.

**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