Reviewer’s report

Title: Emergency ambulance service involvement with residential care homes in the support of older people with dementia: an observational study

Version: 1 Date: 3 March 2014

Reviewer: Adam L Gordon

Reviewer’s report:

This is a well-written report, describing important and novel research analysing ambulance responses to care homes without nursing. The results are clearly presented and easy to understand. The interpretation of findings is, for the most part, appropriate and the discussion effectively establishes the clinical relevance of the study. Nevertheless, I think there are a few areas that need some attention before it can be accepted for publication.

Major compulsory revisions
- An important methodological shortcoming is that the sampling does not ensure generalisability of data. The authors have taken great care not to overinterpret their results and clearly have in mind that, whilst their sample of care homes generates useful insights, it cannot be assumed that the findings from these homes, in this region, could or should be applied to all UK settings. I cannot see, however, that they have stated explicitly that this is a limitation. If they could include a discussion of the fact that findings from their sample may not be generalisable due to the (necessary) limitations on sample size and diversity, this will help the less initiated reader and I would be satisfied.

- The authors infer, from the relationship between number of GP visits and ambulance call outs, that ambulance services are not being used as a substitute for GP services. I wonder if this may be overinterpreting their data. Surely it just means that patients and care homes that call on one service frequently, will call on other services - either through clinical necessity or by force of habit. Indeed, patients and homes who call on GPs frequently may be more likely to find that, on a given occasion, a GP cannot meet their needs and therefore call on an ambulance instead. Unless the authors can reject this alternative interpretation in their discussion then I would suggest that their assertion about non-substitution of ambulance services for GPs is perhaps a bit speculative and overinterprets the data somewhat.

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 I have no competing interests.