Reviewer's report

Title: Quantitative assessment of airborne exposures generated during common cleaning tasks: a pilot study

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Reviewer: Manolis Kogevinas

Reviewer's report:

1. This is an interesting study evaluating exposure to chemicals in cleaning activities in a controlled study. It is important because we have little information on such exposures and it is very difficult to do these studies in real life situations (see for example ref. 31, with measurements of irritants in domestic cleaners in a real life situation and a 5% response rate). The issue of asthma in cleaners is an important one, and although the authors do not address this issue directly, they provide a methodological approach and results that are relevant. The paper is well written, the methods used are valid and I have only a few minor comments.

Minor essential revisions

2. Page 3, background, line 3 from top. You could add some references on studies doing a quantitative assessment. At least one of the references you already list, (reference 31, Medina-Ramon OEM 2005) does have quantitative measurements of exposure to chlorine and ammonia.

3. Discussion. It would be helpful if the authors added 2-3 summary sentences in the beginning of the discussion.

4. Discussion. Some of the subtitles are a summary of the paragraph, while others are simply subtitles. The authors should revise them and provide one type of subtitles throughout.

5. References: I hate suggesting adding one my papers in the reference list when reviewing, and I very rarely do it. (This is an open review process so I feel I can do it here, I would not do it in a close review). I think it would be just to mention among the 11 references quoted on asthma risk among cleaners, the very first ECRHS study that described such an increase (Kogevinas et al, AJRCCM, 1996). This paper is actually the first one that brought to wider consideration the issue of asthma in domestic cleaners. Anyway, I obviously have no problem if this paper is not mentioned, so please disregard this comment if you feel that you already quote enough papers on asthma risk in cleaners.

6. References. Some are not numbered in the text (see e.g. page 13)

7. Figures 1. The colours of the lines in figures 1a and 1b (purple small baths) are different the main figure 1c (purple is large baths)

8. Figures. Since this journal may include online figures easier than other
journals, it would be of interest to have two additional photos, one of a small and one of a big bathroom. The concept of what is a small and what a big rooms is not the same in different countries, and the volume of the rooms the authors provide is not easily interpretable.

**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