Reviewer’s report

Title: Characteristics of unit-level patient safety culture in hospitals in Japan: a cross-sectional study

Version: 1 Date: 9 July 2014

Reviewer: Liane Ginsburg

Reviewer’s report:

This paper has some interesting pieces. In particular, the approach of clustering units and looking at which climate dimension(s) contribute to cluster membership for different unit types is an interesting avenue of inquiry. However, I have some fairly serious concerns about how some of the units were created / collapsed. In addition, I found some of the data interpretation in the discussion section was not justified by the study data presented. These issues are described in more detail in the major compulsory revisions section.

Major Compulsory Revisions:

1. Data Analysis section – paragraph 2 – Please explain why Obstetrics and gynaecology wards, perinatal units or neonatal intensive care units (NICU) were treated as one unit type. It is not immediately obvious to this reviewer why these three unit types would be grouped together. The justification for treating them as one unit type is particularly important given the staggering Odds Ratio for this grouping of units relative to other units shown in table 2.

2. Discussion section – paragraph 2 – This grouping of units noted in the previous comment also caused me to have some difficulty with the 2nd paragraph in the discussion section where strong findings for this group are explained only in reference to literature on obstetrics units.

3. Results section – 2nd paragraph – Can you please explain the finding that “Percent positive scores of all PSC sub-dimensions were significantly higher for high-PSC units than for low-PSC units.” Was this result just to show that the clustering worked or to show that it differentiates across all 12 of the PSC dimensions? You sort of get to this in the discussion section but it is a bit hard to tell because details on how clustering was done are not provided (did you use K-means clusters?) Perhaps some additional detail on how clustering was done would help clarify this.

4. Discussion section – paragraph 3 – the discussion of findings for administrative units and, in particular, the suggestion that event reporting culture may be “inferior” should be reworked to emphasize the latter part of this paragraph which quite rightly points out that admin units involve less (and perhaps little to no) direct care so event reporting may not be overly relevant for this area.
5. Discussion section – paragraph 5 – the first sentence is quite strong and does not appear to be supported by the data in this study which did not look at ‘actual patient safety levels. So the statement that “In long-term care wards, actual levels of patient safety could be lower than those in other units because outcome measures for PSC, such as ‘Patient safety grade’ and ‘Overall perceptions of patient safety’, were the lowest among all unit types” needs to be revised or removed.

6. General comment - it was not clear if the authors have accounted for differences in respondent groups that are found in some of the units they characterized. For instance, some units have mainly nurse respondents, while at least one has all physician respondents, and others may have a higher proportion of non-direct care provider responders. It seems quite possible, even likely that some of the differences in PSC scores may be due as much to respondent group as to unit type. Can this be teased out, explored, or, at least, controlled for?

Minor Essential Revisions - none

Discretionary Revisions - none

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

No competing interests