Reviewer’s report

Title: Observational study of a new strategy and management policy for measles prevention in medical personnel in a hospital setting

Version: 1 Date: 28 Jan 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

No - there are minor issues

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

Statistics - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are minor issues
OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Probably - with minor revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: Overall, this is a really interesting in-depth look at how a hospital can respond to a measles outbreak. My impression of the study is that it offers good information about what hospitals can do in a measles outbreak situation.

The authors have done well to provide a lot of quantitative information about vaccination compliance, and to situate this into the continuum of care model.

Although most of the pieces of this manuscript are there, I've provided comments on how to restructure introduction and discussion to provide a better flow of information in the manuscript.

REQUESTED REVISIONS:

Main suggestions

Overall your paper is very logically oriented and is an interesting case study of how to improve measles vaccination coverage. Although I understand why you structured your paper the way you did, I think the background is a bit bulky. Your aim, as I see it and as you wrote it, is to "explore the effectiveness of a new strategy for preventing spread of measles in medical personnel”. Therefore I think the information about the number of personnel vaccinated at baseline actually would belong in results. I would change sections of the introduction as follows:

page 5 line 10-30: I would move this to results where you can directly do before-after comparison.

page 5 line 33-52: this could be heavily abbreviated - better info would be how many cases worldwide are due to hospital-based transmission, or examples from other locales.

On page 6 line 1 and line 26 you mention "three clusters of measles cases" - are these the same 3? overall - this paragraph could be simplified to focus on the outbreak you are studying.

Missing from the introduction is a bit of basic information on the worldwide standards associated with measles vaccination in health care workers - is it mandated in certain locations? / what specific policies are there?
Overall

There is some inconsistency in how many decimal points you report. I recommend only one - which would seem to be enough precision, but if you want two, just use two for every reported statistic.

You sometimes report the "compliance rate" and also the "non-compliance rate" - I think it should be the same for the sake of simplicity. (I also might just rephrase this as "vaccination compliance" because compliance rate could be a bit vague)

Abstract

Background: what do you mean by compliance rate? maybe "vaccination uptake among health care workers"?

Conclusions: you mention immunization coverage increased from 85.81% to 98.05% - but is that 85.81% related to the 85.3% in the background?

Also your conclusions in abstract seem more results-oriented. The first sentence works well as a conclusion, the second one not so much - maybe switch to something that extends what you are referring to in first sentence.

Introduction

page 5 line 55 - I appreciate you discussing case counts in Taiwan. Has Taiwan officially eliminated measles? as in, are all cases import-linked?

I get what you are saying when you write "40's-year-old woman" but in English we would probably reword as "woman in her 40s" (similar for "20's-year-old male nurse" etc)

Discussion:

page 16 line 21 to page 17 line 42 are mostly just a reprinting of results. I would heavily simplify them within 1 paragraph

page 20 line 32-39: would delete - sort of seems coming out of nowhere - or more clearly link to next paragraph.

Note: This reviewer report can be downloaded - see attached pdf file.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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