Author's response to reviews

Title: The impact on patient health and service outcomes of introducing nurse consultants: a historically matched controlled study

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Author's response to reviews: see over
Dear Dr. Urquhart,

Thank you for your email dated 27th September 2013. We would like to express our most sincere gratitude to you and the Referees again for the time and effort spent with this manuscript. We are very pleased to resubmit our revised manuscript (with track changes highlighting the amendments made) after addressing the following concerns raised by Prof. Ohman-Strickland and the Associate Editor:

Referee 1: Pamela A Ohman Strickland

1. I do not understand how the Wilcoxon signed rank test or the Mann-Whitney test are taking into account the pairing that is part of the study design. These methods are usually used for independent observations. Can the authors clarify?

Response: Sorry for the confusion. We understand that Mann-Whitney test is only appropriately used for comparing two independent groups. We have actually only used the test to compare the length of hospital stay for those who had re-admitted to hospitals among the patients in the two cohorts (totally only 7 and 40 patients respectively among the 140 patients in each of the NC and non-NC care cohorts). These subgroup of patients were not necessarily matched pairs, we thus used Mann-Whitney test for comparing this outcome. We are happy to delete this subgroup analysis results from the main text and Table 3 if the reviewer considers that they do not reflect fair comparisons between the two matched cohorts. To our best knowledge, Wilcoxon signed rank test is indeed a non-parametric alternative to paired t-test, which can be used to test two related samples. We have actually compared the ranks of the observations of the two matched cohorts for those outcome variables tested by Wilcoxon signed rank test. In the present Table 3, we have presented those outcomes with only a few distinct values by their frequencies and percentages instead of conventional used medians and inter-quartile ranges. We understand that these may lead to confusion about the appropriateness of the statistical tests used. We therefore have added further footnotes to clarify that in the table.

Associate Editor’s comments:

1. Please give the full name and affiliation of the institutional ethics committee that approved the study, and add it to the revised manuscript. Please update your ethics statement to include the name of the ethics committee that approved your study.
Response: We did obtain ethical approval from the ethics committee affiliated with the Hospital Authority of Hong Kong prior to starting data collection of the study. We have updated the ethics statement.

2. Acknowledgements: Please acknowledge anyone who contributed towards the article by making substantial contributions to conception, design, acquisition of data, or analysis and interpretation of data, or who was involved in drafting the manuscript or revising it critically for important intellectual content, but who does not meet the criteria for authorship. Please also include the source(s) of funding for each author, and for the manuscript preparation. Authors must describe the role of the funding body, if any, in design, in the collection, analysis, and interpretation of data; in the writing of the manuscript; and in the decision to submit the manuscript for publication. Please also acknowledge anyone who contributed materials essential for the study. If a language editor has made significant revision of the manuscript, we recommend that you acknowledge the editor by name, where possible. The role of a scientific (medical) writer must be included in the acknowledgements section, including their source(s) of funding. We suggest wording such as 'We thank Jane Doe who provided medical writing services on behalf of XYZ Pharmaceuticals Ltd.' Authors should obtain permission to acknowledge from all those mentioned in the Acknowledgements section.

Response: After discussing with all the major contributors to the study, we have decided to update the author list and authors’ contributions in order to acknowledge the substantial contributions to the study and manuscript made by our collaborators, please see the revised author list and authors’ contributions. We would like to seek your approval to include two more co-authors to the manuscript. Thank you for your consideration. This study received no funding from any agency in the public, commercial or not-for-profit sectors.

On behalf of all co-authors, we sincerely hope that you will consider the revised manuscript for publication in *BMC Health Services Research*. We look forward to hearing reply from you soon. Thank you very much for your consideration.

Yours sincerely,

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