Author’s response to reviews

Title: Patient related factors in frequent readmissions: the influence of condition, access to services and patient choice.

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Author’s response to reviews: see over
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To BMC Health Services Research Journal
Reply to reviewers’ and associate editor’s comments

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Preventing frequent readmissions: the influence of condition, access to services and patient choice.

Sue E Kirby, Sarah M Dennis, Upali W Jayasinghe and Mark F Harris

Thank you for the third set of reviewers’ comments on the revised manuscript which was received by email on 1 June 2010. The reviewers’ comments were most helpful.

We have now examined the comments and have amended the manuscript to reflect the concerns raised. The amended manuscript with track changes is attached to show how the paper has been changed. In addition, a clean copy without track changes is attached to this letter for ease of reading.

A detailed response to each of the comments made is attached to this letter providing the page number and section in the revised manuscript without track changes.

Again, thank you for the opportunity to revise the manuscript based on the third set of comments. I have pleasure in submitting the revised manuscript for your consideration.

Yours faithfully,

Sue Kirby
Corresponding author
Detailed Response to Comments

Reviewer Dr Judith Savageau

1. The Introduction seems unusually long at this stage. There are numerous places where the authors discuss their aims and objectives within various paragraphs of the Introduction as they review the literature citing gaps and controversies. It would be easier for the reader if their overall aims/goals/objectives for this study were presented just at the end of the Introduction as is typically written. The Introduction would then be a bit less choppy in their current review of the literature given the new focus of the paper.

The introduction has been shortened as suggested as shown in the track changes. In the interests of brevity, the paragraph on the policy initiatives recommended in Australia has been deleted. In addition, the aims/goals/objectives statement has been strengthened and inserted at the end of the Introduction as suggested (see pages 7 and 8 of clean copy).

2. I am a bit confused by the new approach to the analysis in the identification and inclusion of independent variables. The authors do say that they have used an ‘enter all’ rationale for their logistic regression runs, but the rationale seems very weak without making a case for including non-significant variables unless they feel strongly that one needs to ‘control for’ such issues as being foreign born, seasonality, day/shift of entry to ED, etc. Given the admittedly low percent of variance explained by the variables significant in the model (which they justify and can explain relatively well), it seems, for the sake of parsimony, that there really isn’t a need to keep in so many additional independent variables (even though their sample size would support this) without a justification for not using a forward stepwise or backward elimination approach in deriving a final model. This should be better explained in the paper or the LR tables should be presented without those variables – especially the ones that are ‘not’ significant in either of the 2 models.

The logistic regressions models have been re-worked in the light of this comment using the method of backward elimination. Tables 2 and 3 (see pages 26 and 27 of clean copy) show the results of the backward elimination method. We agree that this method achieves a more parsimonious model and is therefore preferable to the “enter all” method used in the previous versions of this study.
Reviewer Dr Benjamin Friedman

1. Please provide a table containing all the independent variable raw data: ie, how many males were frequent re-admitted versus not; how many unplanned return visits were frequent re-admitted versus not; etc.

As suggested, the results of the univariate analysis are now presented at Tables 1a. and 1b to reveal the raw data (see pages 24 and 25 of clean copy).

2. I don’t understand what was done with diagnoses. What happens if someone did not have neurosis, CHF, COPD, dyspnoeas or chest pain?

The text describing the manipulation of the original variables has been amended to address this issue. For the univariate analysis, the diagnosis variables were constructed by recoding into a different variable using the ICD 9 code for the diagnosis in question. For the multivariate analysis, the nested diagnosis variables were selected and the ICD 9 diagnosis in question was counted to create the “number” variable. A new variable was then computed by dividing the number variable by the number of presentations variable to give the continuous “proportion” variable. See pages 9 to 11 of the methods in the clean copy.

Two new tables have been included: Table 1a and b presenting the results of the univariate analysis and page 12 of the text in the clean copy. Variables of the five most commonly occurring ICD 9 diagnoses in the frequent readmissions group were constructed. In addition, another variable was constructed of the other remaining ICD 9 diagnoses. A similar procedure was performed with the ambulatory care sensitive conditions using the groupings preventable, rapid onset, chronic and other.

3. Either present the data for the years preceding 2008 or don’t bring it up

All mention of years other than 2008 has been removed from the manuscript as suggested.

4. Please define ambulatory care sensitive conditions

The definition of ambulatory care sensitive conditions and the groupings into which they have been divided for the analysis is now included at page 11, second paragraph of clean copy.