Reviewer’s report

Title: Readmission rates in non-profit vs. proprietary hospitals before and after the Hospital Readmission Reduction Program Implementation

Version: 0 Date: 14 Jun 2017

Reviewer: Jennifer Albrecht

Reviewer's report:

Overall

It is unknown whether the HRRP reduced 30-day readmissions equally between for-profit and not for-profit hospitals. The objective of this study was to determine if implementation of the HRRP was associated with different rates of 30-day readmission reductions between for-profit and not-for-profit hospitals. Hospital ownership data were provided by the Centers for Medicare and Medicaid services and readmission data was obtained via linkage through the Dartmouth Atlas of Healthcare. This was a quasi-experimental study. Results suggest that while non-profit hospitals have lower rates of 30-day readmissions, the HRPP did not differentially reduce readmissions between hospital types. This national study provides information regarding the impact of HRRP on readmission rates by hospital profit status that may inform policy decisions. While the regression methods presented are appropriate, additional detail on the statistical methods is needed. There are questions regarding the unadjusted analyses. In addition, there are several errors in the text that suggest inadequate proof-reading and possible carelessness.

Abstract

In the background, the authors use the word 're-work' when hospital readmission is more appropriate. Last sentence - authors intended to write not-for-profit and proprietary.

In the methods, the authors mention testing not-for-profit status as a potential effect modifier. This is not mentioned in the methods section.

Conclusion - data never 'support' the null. We fail to reject the null.

Methods

The figure is a flow diagram or chart. A consort diagram is specific to clinical trials.

Overall, the statistical methods section should contain more detail. There is no explanation of how the models were constructed, even though 3 adjusted models are presented in Table 2.
Furthermore, the authors identify 3 research questions but only use a regression model to analyze the last question. Why wasn't regression use to control for case mix, etc when examining baseline differences, or even when examining change over time within hospital type? The bivariate analysis shows that case mix did change over time. The authors didn't mention

Results

The statement that the regression analysis confirmed the null hypothesis is incorrect for the reason mentioned earlier, but also doesn't belong in the results section. This is a discussion item.

Table 2 contains a lot of information that is essentially not discussed in the results. For example, what is model 3? Never mentioned.

Under 'Assessment of Emergency.....', the total number of hospitals w/out emergency departments is given as 45. This conflicts with information given in Table 1 (n=68) AND with information given later in the discussion. However, the same number is mentioned in Table 3. This discrepancy needs to be resolved and the analyses may need to be re-run.

Discussion of effect modification assessment should have been in the methods. Also, the analysis of effect modification by emergency room was conducted without adjusting for case mix. This reviewer doesn't understand why the authors only adjusted for case mix in their primary model and used unadjusted analyses everywhere else. An explanation is warranted.

Discussion

Line 218 - Zuckerman et al reported that HRRP targeted readmission rates for... the words readmission rates for are missing.

Line 221 - this is an awkward sentence that could be reworded.

Line 235 - extra word 'to' needs to be removed.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
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