Reviewer's report

Title: Pediatric High-impact Conditions in the United States: Retrospective Analysis of Hospitalizations and Associated Resource Use.

Version: 1 Date: 17 February 2012

Reviewer: Jeffrey Wiener

Reviewer's report:

Major Compulsory Revisions:
1) P-values should not be reported as p<0.05, and should instead be reported exactly to at least 3 digits after the decimal place unless <0.001.
2) The 5th sentence of the results in the abstract should have an appropriate p-value. "Mean total hospital charges for the extremely ill were also significantly higher (p=?)...".
3) As stated in the background section, the authors tested the hypothesis that the most severely ill children will be hospitalized more often at children's hospitals. More information is needed here on why this was hypothesized for high-impact conditions before the analysis was started.
4) The section on dependent variables in the methods is confusing. I believe the mean and cumulative variables are calculated in the analysis. This would indicate the dependent variables in the dataset are length of stay and total hospital charges, and the (weighted?) means were calculated using these dependent variables. Please clarify.
5) Mean values by hospital type should be added to table 4. It is difficult to assess the effect of hospital type using only aggregate counts.
6) The type of significance tests used should be either stated in the methods, or as a footnote in the tables where p-values are listed.
7) 3rd paragraph of the discussion, last sentence. P-values are needed when describing these significantly longer hospital stays. I don't believe p-values for these comparisons are included elsewhere in the tables or text.

Minor Essential Revisions:
1) The first sentence of the methods in the abstract is not a complete sentence. It should read "We conducted a retrospective study ...".
2) Table 5, characteristic column should state "Cumulative Hospital Stay".

Discretionary Revisions:
1) Since most of the hospitalizations were in infants, it would be helpful to know if these results differ in the older age categories. Is it possible to include a brief comparison to see if older children also similarly use children's hospitals most often for extreme diagnoses?
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests.