Reviewer's report

Title: Frequent emergency department attenders and frequently readmitted patients: how the differences can shape policy.

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Reviewer: Judith Savageau

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BMC Article Review

Frequency emergency department attenders and frequently readmitted patients: how the differences can shape policy?

NOTE: With the exception of the first and last paragraphs of the Results section (which are 'Minor' edits needed), the edits should be considered 'Major' as they require further description, a clarification, or a need to fill a gap in the writing for the reader.

Reviewed: 12/28/09

Overall, this was a well written paper on a topic that clearly still needs attention in terms of the overutilization of emergency rooms for non-urgent care, particularly among persons with identified primary care providers assigned to them. In the end, however, what’s not clear are the policy implications of these findings though the authors suggest that these findings will help to guide policies and strategies to more appropriate use of care where needed. This goal was not really addressed in the Discussion or Conclusion – though it’s an important one to be considered (and a notable omission). Perhaps the authors could address this further.

Abstract

Results section: Unsure of the value of the last sentence in first paragraph (related to maximum admissions per patient in one year – doesn’t seem to match with data presented in the body of the paper)

Conclusion: It would be more convincing and the utility of the study more broad if the authors had presented a stronger direction for the use of these findings. The conclusion is rather too generally stated.

Introduction

The end of the 3rd paragraph (mid page 5) discussing the ‘full picture on service choices’ and the need for further study seems a little ill-placed. Above in the same paragraph, the authors discuss the relationship between health behaviors and personal attitudes and beliefs. It would seem that perhaps this relationship has been sufficiently studied? Are there no published studies that speak to this such that the authors believe there still remains a need to further study patient
attitudes and beliefs – yet, this isn’t what they studied themselves?? The authors continue on this vein in the 9th paragraph (bottom of page 6), but it’s not really clear what the ‘gaps in knowledge’ are that suggest we really don’t know well what the missing pieces are that still need exploration.

At the end of the Introduction, the authors describe their two dependent variables but make no effort to outline why these cut-offs in numbers of presentations and re-admissions were chosen – though that would be a Methods (it’s not there either – not until very much later in the Discussion).

Methods
In the first paragraph (Study Design), the authors noted “the other years in the data series were checked for consistency”; it’s not at all clear what this means.

In the next paragraph (Data Analysis), the authors discuss preliminary analysis used to identify key factors for further exploration and talk about ‘other clinical factors’ – though, again, it’s not clear what these are. Some clinical independent variables are noted on page 9 – but it’s unclear if these are what the authors refer to, not to mention that on page 9, there continue to be references to ‘other clinical variables’; these should be more specifically noted.

Results
In paragraph 2 (page 10), the authors discuss the initial univariate analyses and refer to ‘all presentations’; however, the table referred to (Table 1, and also the other 2 tables) 2008 data? It’s unclear if just 2008 data is being presented (though one would not think so; perhaps the reference to 2008 in all tables is ill-placed?).

The same paragraph describing the various factors in the presentation and readmission groups again refers the reader to Table 1, but a natural question is whether there are statistically significant differences between the two groups (or each group related to the total) in the 2nd and 3rd columns of the table. Understandably, these are descriptive of the two outcome populations, but there’s a natural question for the reader whether these are different populations or not – given that there was a desire to consider them independently for the multivariate analyses. Perhaps a discussion of their differences, or why they aren’t being tested statistically, is in order.

The paragraph at the top of page 11 refers to a Spearman correlation coefficient and findings therefrom. The next sentence starts with ‘these variables’ – but it’s unclear which variables are being referred to as the correlation assessed a value between the two dependent variables?? Please clarify this sentence.

The first reference to Table 2 (on page 11) speaks of five significant independent variables but it appears from the table that there are 6 significant factors, albeit that one of them is negatively associated with the outcome variable. While there were two variables negatively associated with the outcome in Table 3, these were discussed as well as those (6) that were positively associated with the outcome; these results should be presented fully and consistently.
Discussion

The first paragraph (page 13) nicely summarizes the findings but it would be helpful to the reader if there were some ‘discussion’ as to whether these findings (particularly those clinical/diagnostic factors) make sense clinically. Are these unexpected or expected findings? Is there some clinical rationale why patients with certain diagnoses would be more likely to use the emergency department for their care? Some of this is spoken about later in the Discussion, but it would seem that the place to initially address this would be when the variables are first presented/summarized.

The paragraph on page 15 which outlines some of the literature on the definitions used by others for ‘frequent’ attenders (and/or those re-admissions) and the rationale used by the current authors for this specific study, the authors only state one reference for the use of their ultimate decision yet speak about published ‘reports’ in the plurality. If this is truly the case (i.e., there are multiple reports), please supply other references. There’s no right or wrong number here (for the cut-offs), but the definition used should be well supported.

Page 16 discusses in more detail the findings from the logistic regression models. While the clinical factors found to be significant are clearly important to the study, one would assume, based on the more complete collection of variables described in the Methods, that factors such as time of day, day or week, seasonal issues, etc. were not significant as they weren’t noted in the regression tabular summaries. Since these are clearly factors that one thinks of initially as related to emergency care utilization, it might be helpful to report specifically that they were not found to be significant factors related to the two outcome variables. It’s never specifically stated, allowing the reader to assume this – but they’re natural ‘suspects’ and so specifically ruling them out might be helpful to the reader.

The limitations section (page 17) is well written and clearly outlines major suspects by which to view the internal and external validity of the findings. I wonder, however, if it might not have been helpful to note the significantly wide confidence intervals for several of the variables (in both models) suggesting some caution to the reader regarding the precision of the estimates. It would also be helpful if the authors ‘reached’ a bit and described the potential to generalize these findings – rather than merely state (though true) the limitations thereof – if the results have no generalizability that can be suggested, the findings are that much more limiting.

Conclusion

As noted previously, the Conclusion may be an accurate summative statement of the study’s findings, but it leaves the reader with questions about what might some of the policies and strategies that could be defined and evaluated in terms of impacting future emergency room care. Given that the title of the paper suggests ‘how to shape’ policy – perhaps that’s a vitally needed statement in the Conclusion of the paper.
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

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