Reviewer's report

Title: Definition of a Prospective Payment Scheme to Reimburse Accident & Emergency Departments

Version: 2 Date: 20 May 2013

Reviewer: Anantharaman V

Reviewer's report:

- Major Compulsory Revisions

Background

1. Page 3, Line 2: There are a number of studies that review the reliability of triage scales and relate them to resource utilization, and, indirectly, to cost. Suggest the authors review these and others on the same theme


2. The authors also need to note that PPS schemes use historical data on patient costs and patient acuity measured by their various national triage systems, and that there may not be a one size fits all approach.

3. The rationale for the study is not clear. The authors also need to explain why they have proposed a PPS scheme for reimbursement, especially since they have earlier stated that such schemes are characterized by high levels of
uncertainty and variability. The use of a type of PPS scheme by two countries, such as Australia and Belgium cannot be the reason why the authors are proposing such a scheme, without examining the similarities or differences between the population in these two countries and the population visiting their own Emergency Department (ED).

4. The words from “In the present study a PPS scheme ….. three groups sufficiently homogeneous to be reimbursed with a PPS” should belong to the section on Methodology, and not Background. The final paragraph in the Background section would be more appropriately placed in the Conclusion section.

5. The authors should review the whole section on Background and provide a clear rationale as to why current reimbursement mechanisms used at their institution or community does not reflect cost of care, explain what has been done in other communities to allow reimbursement to more closely reflect cost, and then provide the basis for the conduct of this study.

Methods:

6. This section needs to be clearly reorganized into three main areas, viz. Study design, Ethical considerations and approval, and Data Analysis. The authors would need to clearly explain how cost was calculated. This is not clear from their manuscript. Any cost imputation in the manuscript will be considered unreliable if the basis for cost calculation is not clearly spelt out. Is such a cost computation valid?

7. The authors refer to the time between the first examination and discharge as a better indication of the use of resources. Unless they can provide an authoritative basis for such a presumption this must be rejected, because such timings may also be significantly influenced by the efficiency of their various departmental procedures and not by resource utilization.

8. If the authors used a separate time sheet for each patient during the week of data collection providing the detailed time flow of the patient from the moment of entry into the ED, the actual timing of the conduct of the various procedures, and the actual tests done and the staff utilization at each stage of the process, they would be more likely to be able to have captured the patient’s ED visit adequately to be able to arrive at a costing per patient visit. If that is the case, this must be clearly explained or the methodology used be clearly referenced, if such reference is available.

9. The whole portion from page 5, “During the sample week, 1011 patients ………., Table 1 and up till ……… as it might be expected” in page 6 should be in the Results section and not placed under Data Analysis.

10. The whole portion from page 7, “Figure 1 till page 9….. as will be shown in the following section” should also be placed under the Results section.

11. Some portions described in the Results section of the manuscript would be
more appropriately placed under Discussion. The Results section should contain just the factual results of the study.

Discussion:

12. One of the major reasons why there may not have been a clear relationship between triage codes and cost and the wide dispersion of costs for each triage code would have been that the emergency department nursing staff may have up-triaged or down-triaged a significant number of specific patients. The authors have alluded to this in various parts of the manuscript. This could significantly affect the results obtained. The authors would be advise to perform the following:

- Review the categorization of each of the 1011 patients seen during the week of the study by conducting a post-hoc recategorization based on the patients' clinical notes so as to minimize the influence of incorrect nurse triaging. The lesson to be learnt from this is that as long as triage staff do not follow triage guidelines strictly, triage coding will not be a reliable tool for determination of cost reimbursement.

Conclusions:

13. The conclusions drawn by the authors in this study do not appear to be reliable owing to likely incorrect labeling of patients into the various triage codes. If the authors conclude, as a result of this study, that crude triage codes cannot be used to reimburse emergency departments, that can perhaps be true because triage codes assigned are not strictly based on acuity status or urgency status, but on social reasons added in by triage officers who do not strictly follow triage guidelines.

14. The suggestion of combining crude triage codes with numbers of laboratory and non-laboratory examinations performed cannot be a practical PPS measure because such information may not usually be available on arrival at the Emergency department.

15. The authors may wish to re-examine the conclusions after they have addressed the issue of correct categorization of each patient seen during the one-week trial period.

- Minor Essential Revisions

16. Please consider using the term ED, rather than A&ED as the term ED is much more universally used and better appreciated by most readers the world over.

17. Please obtain the services of a person well versed with the English language to correct a number of grammatical and sentence construction errors in the manuscript.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Needs some language corrections before being published

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