Reviewer's report

Title: Predicting Hospital Cost in CKD Patients through Blood Chemistry Values

Version: 1  Date: 10 June 2011

Reviewer: V Lorenzo

Reviewer's report:

Comments to the Author
The authors report an interesting economic study showing the effect of biochemical parameters on hospitalization cost.
The article is very well written. Structure, design, methods, results and discussion are coherent.

Given that I am not an expertise in health economy I am going to focus my comments from the clinical nephrologist's perspective.

Introduction
Physiopathological comments (link between PTH, P, albumin and survival) do not connect with the methods and results, where the authors demonstrate an association between linear predictors and costs. Introduction comments should be re-directed to the main topic of the article.

Statistic method: well described, multivariate logistic regression, ROC curves and the use of Z-score is adequate.
The authors should justify why 3000$ has been chosen as cutoff for HCH.

Results
I have concerns about the information usefulness obtained from this article to the clinical nephrologists.
I miss more information about the biochemical parameters in units handle by the clinician, and more information about the economic parameters. For example, the author should provide data of relevant biochemical data in the 2 groups: HCH and no-HCH.

The composite parameter (predictor index) is not useful for the clinician, at least in the present terms. ¿What values of PTH, P, albumin, etc should be recommended in guides to prevent high cost? Or ¿what is the risk for high cost for unit of increment of biochemical parameters?
The units used in X axis of the Figures is not helpful in the clinical scenario. This information should connect with clinical parameter.
In addition I would like to have pormenorized information about the hospitalization cost.

- Discretionary Revisions
I consider the article should be published, but re-oriented providing clinical information for biochemical parameters and additional data about the costs (see comments to the authors).
I consider this additional information and analysis, not only useful, but also essential from the clinical perspective.

Quality of written English
For my point of view the written English is excellent, but English is not my mother language.

Statistical review
I have some knowledge of statistic, and the statistical analysis is serious and adequate.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Declaration of competing interests:**
I have no competing interests