Author's response to reviews

Title: Effect of comorbidity on health-related quality of life of injury patients in the first year following injury: comparison of three comorbidity adjustment approaches

Authors:

Juanita A Haagsma (j.haagsma@erasmusmc.nl)
Ed F van Beeck (e.vanbeeck@erasmusmc.nl)
Suzanne Polinder (s.polinder@erasmusmc.nl)
Hidde Toet (h.toet@veiligheid.nl)
Martien Panneman (m.panneman@veiligheid.nl)
Gouke J Bonsel (g.bonsel@erasmusmc.nl)

Version: 4 Date: 6 February 2011

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February 6th, 2010

Concerning – resubmission revised manuscript “Effect of comorbidity on health related quality of life of injury patients in the first year following injury: comparison of three comorbidity adjustment approaches”

Dear Editor,

We would like to thank you for reconsidering our manuscript entitled “Effect of comorbidity on health related quality of life of injury patients in the first year following injury: comparison of three comorbidity adjustment approaches” under the condition that we revise it as recommended by the handling editor.

We are grateful to the handling editor for the suggestions to improve the manuscript.

These suggestions regarded the statistical analysis, i.e. the methods used to analyse the goodness-of-fit. We are also very grateful for the materials that were provided to illustrate this point. These were very helpful and enlightening.

We agree with the reviewer that the R-squared is not an acceptable measure of goodness of fit as it is intended in the manuscript and that the intraclass correlation coefficient (ICC) or concordance correlation coefficient is needed to assess the fit because the scale matters.

We have analyzed the data again and this time used ICC to determine the goodness-of-fit of the predicted comorbid disability weights using the three comorbidity adjustment methods. This showed that ICC between the observed and predicted comorbid disability weights were significant (p<0.001) for all three approaches, and highest for the additive approach (ICC =0.896). The ICC of the
multiplicative approach and maximum limit approach were 0.876 and 0.854 respectively.

We have added this to the methods section (page 9, line 7-11) and the abstract. The results and discussion section were also adapted accordingly.

The article is revised on the Population Health Metrics web page. The specific revisions due to the review comments have been highlighted. In case of further queries we are most willing to help.

Kind regards,

Juanita Haagsma

Juanita A. Haagsma;
Department of Public Health;
Erasmus Medical Center;
P.O. Box 1738;
3000 CA Rotterdam;
The Netherlands;
Tel: *31-6-40486125;
e-mail: j.haagsma@erasmusmc.nl