Reviewer's report

Title: Patient-Reported Treatment Burden of Chronic Immune Thrombocytopenia Therapies

Version: 2 Date: 12 October 2011

Reviewer: Giorgio Bedogni

Reviewer's report:

GENERAL COMMENT

I was asked to review this paper as BMC statistical referee. I was blinded to the reviews made by the other referees.

MAJOR COMMENTS

P8 Statistical Methods (and elsewhere): please, define clearly the outcome and predictors of all the regression models you employed. From your description and the legend of some Tables, I understand that at least some models had treatment (0-1), bother (1-5) and a treatmentXbother interaction as predictors. Was the treatmentXbother interaction modeled as continuous? What is the clinical interpretation of this interaction for the purpose of the present study? (I suppose that main effects were also in the models when this interaction was employed - is this right?)

P21 (and elsewhere) Some data reported as mean (SD) are unlikely to be normally distributed although this is difficult to tell without the raw data. Platelet count is a good example: its SD is 85980 vs a mean of 62230. A median would be a better descriptor of central tendency for these data.

P22 (and elsewhere): the regression coefficients given in Table 2 were obtained using ordinary least squares regression. The outcome variable is a 5-level ordinal variable that is unlikely to be normally distributed. More importantly, it is unlikely that regression residuals are homoskedastic. You should formally check the assumptions of linear regression before accepting these coefficients and especially their standard errors / 95% confidence intervals - please, report SE or 95%CI in the Tables. Some ways to get around this potential problem: use robust or bootstrap confidence intervals, use robust regression (of which many varieties exist), use quantile regression to model the 50th centile as a function of the predictors of interest.

P23 (and elsewhere): weighted bother was obtained by multiplying mean bother by its frequency. Median bother may be better for the reasons reported above.

MINOR COMMENTS

P4 Please give a reference for the last phrase.
P6 It appears that the face validity of the study questionnaire was adequately addressed. Do you have any data on other validity dimensions of the questionnaire?

P7 (and elsewhere) The Likert scale gives much information that is lost by dichotomizing it when performing logistic regression. Ordinal logistic regression may be used to recover much more information from the data.

P9 589 patients completed the survey. But how many patients were sent the questionnaire? Please report the respondent rate.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests