Reviewer's report

Title: Do patients with recurrent reported episodes of campylobacteriosis differ from those with a single disease event?

Version: 1 Date: 5 October 2010

Reviewer: Edith Gabriel

Reviewer's report:

Major compulsory revisions

Logistic regression analysis is not correct and does not answer “Do patients with recurrent episodes differ from those with a single episode?”

To answer this question, the authors should consider a multivariate logistic regression model in which the outcome would be the report of a previous episode of campylobacteriosis (yes/no) and the explanatory variables would be age, gender, urbanicity and their interaction (if any). Univariate analysis can be used both to analyse the link and the interaction between each characteristics of patient and recurrence of campylobacteriosis and as guidelines to select variables which can be included in the multivariate model. However, final variables, i.e variables included in the multivariate model, are often chosen via backwards elimination.

An alternative model could be considered by using polytomous logistic regression analysis in which the outcome takes r>2 categories. For example with r=3, we can have ‘1’ for patients with one reported episode, ‘2’ for patients with two reported episodes and ‘3’ for patients with three reported episodes. Explanatory variables are similar to those in the previous model.

Minor essential revisions

1) Table 2 must be set before Table 1 since it is listed first.
2) Figures 1 and 2 reversed.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests