Author's response to reviews

Title: How does comorbidity affect cost of health care in patients with irritable bowel syndrome? A cohort study in general practice

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Author's response to reviews: see over
Dear editor,

Thank you for giving us the opportunity to revise our article "How does comorbidity affect cost of health care in patients with irritable bowel syndrome? A cohort study in general practice."

We also would like to thank the two reviewers for a positive evaluation as well as highly appropriate suggestions to improve our paper. We have revised the manuscript (changes made by "track changes" function, blue font) accordingly.

Hereby follows an itemized, point-by-point response to the comments of the two reviewers.

Reviewer #1

1. The text regarding inclusion criteria and number of patients with Rome II IBS was obviously misinterpreted. The text has been changed accordingly (page 4, first paragraph) and it should now be clear that only 278 patients fulfilled criteria for Rome II IBS, not 733 patients as interpreted by the reviewer.

2. It is rightly questioned whether the high cost from comorbidity and not IBS itself might not be unique to this chronic condition since illness behaviour is also a feature of several health conditions. We have now introduced this issue in the discussion (page 12, first paragraph), mentioning chronic low back pain as another chronic condition where similar observations has been reported recently.

Reviewer #2

1. This comment partly mirrors the first comment by reviewer 1 already accounted for above (clarification of inclusion criteria and number of patients with IBS). Another issue is to what extent GPs and study nurses could have been biased in their data collection. GPs could not be biased as they did not participate in data collection at follow up. We find it very unlikely that the study nurses were biased towards reporting health resources as related to comorbid disorders, as opposed to IBS. Nurses were responsible for data collection in part 2 of the survey but were clearly instructed to retrieve data from the EMR based on the questions in the CRF. We have included this issue as a potential limitation in the article (page 12, last paragraph).

2. We agree that the lacking association between IBS-related costs and severity of IBS observed in our study could be related to our (1) crude measurement of IBS severity or (2) insufficient power to detect a true association. Other possible explanations are (3) our selection of patients from primary care with mild symptomatology who did not necessarily primarily consult for IBS at the time they were included and (4) the greater importance of comorbid disorders than IBS severity in explaining costs for health care. The borderline significant associations between IBS severity and total costs as well as IBS related costs in bivariate analyses support the latter possibility. These 4 possible explanations are now addressed in the discussion where we also refer to the study that
found an association between IBS costs and severity of symptoms. (page, paragraph...).

3. The multiple linear regression analyses included at most 12 variables. With 164 patients in the study we adhere to recommendations concerning the number of variables to be included in the analyses (e.g. maximum 1 variable per 10 patients in the study).

We believe that the revision appropriately addresses the concerns of the reviewers and has strengthened our paper and we look forward to publication in BMC Gastroenterology.

Sincerely yours

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