Author’s response to reviews

Title: Cost-effectiveness and budget impact analyses of a colorectal cancer screening programme in a high adenoma prevalence scenario using MISCAN-Colon microsimulation model.

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Author’s response to reviews:

Dear Mrs. Strong,

Please find attached a new version of our paper entitled “Cost-effectiveness and budget impact analyses of a colorectal cancer screening programme in a high adenoma prevalence scenario using MISCAN-Colon microsimulation model.” (BCAN-D-17-01017).

We are grateful for the comments provided by the editor and referee in the original version of the manuscript as they helped us to improve the article. In this revision we have carefully answered to editorial requirements and reviewer’s comments. We enclose detailed description of all the modifications made to the text, as well as a copy of the new version of the manuscript.
Please, do not hesitate to contact us if you have any question related to this manuscript. Thank you, again, for your consideration.

Editor Comments:

1. We note there is some textual overlap with other published sources. Although the majority of this overlap is in regards to standardised methods in the Methods sections, please provide rewording and alterations to the sentence structure in the following sections:

The following sentences in the ‘Methods’ section were rewritten.

“MISCAN-Colon is a stochastic microsimulation model for colorectal cancer (CRC) programmed in Delphi (Borland Software Corporation, Scotts Valley, California, United States). It can be used to explain and predict trends in CRC incidence and mortality and to quantify the effects and costs of primary prevention of CRC, screening for CRC, and surveillance after polypectomy”

“MISCAN-Colon is a stochastic microsimulation model for colorectal cancer (CRC) developed using Delphi programming language (Borland Software Corporation, Scotts Valley, California, United States). The aim of the model was to explain and predict CRC incidence and mortality trends, as well as, assessing the effect of primary prevention of CRC, screening for CRC, and surveillance after polypectomy in terms of both health and costs."

“MISCAN-Colon simulates the life histories of a large population of individuals from birth to death. CRC arises in this population according to the adenoma–carcinoma sequence.”

"Individuals of a large population were simulated using MISCAN-Colon. They were created at birth and lifelong follow-up was applied. Natural history of CRC was included according to the adenoma–carcinoma sequence."

“More than one adenoma can occur in an individual, and each adenoma can independently develop into CRC. Adenomas may progress in size from small (≤5 mm) to medium (6–9 mm) to large (≥10 mm)"

"The model assumes the possibility for more than one adenoma at the same time in each individual. Each adenoma can independently progress in size (≤5 mm, 6–9 mm, ≥10 mm) and develop into CRC."

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2. In the section ‘Ethics approval and consent to participate’, please also state whether any administrative permission were required and received for accessing databases or institutional/hospital records in this study.

Following the editors requirements a sentence about administrative permissions was included in the ‘Ethics approval and consent to participate’ section.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was approved by the Basque Country’s Ethics Committee (Reference number PI2014171) according to the principles expressed in the Declaration of Helsinki on 4th November 2014. Complying with the Spanish Royal Decree 1720/2007, 21st December, regulation of the Organic Law 15/1999 for Personal Data Protection for the use of anonymized population data, required for the MISCAN model, no informed consent was requested. Researchers affiliated to the Colorectal Cancer Screening Programme in the Basque Country obtained the correspondent administrative permission to work with institutional data in this project.

3. Please include all figure legends under the heading ‘Figure legends’ in the main manuscript.

A new section ‘Figure legends’ was included with all figure legends in the main manuscript, after the ‘References’ section.

4. Please remove all cover letters and response letters from the file inventory as these documents will not be published.

All cover letters were removed from the file inventory.

5. Upon uploading the revised manuscript, please upload a single, clean copy of the manuscript where tracked changes are turned off.

A clean copy of the manuscript was uploaded as suggested.