Reviewer’s report

Title: Trends in the contemporary incidence of colorectal cancer and patient characteristics in the United Kingdom: a population-based cohort study using The Health Improvement Network

Version: 0 Date: 13 Jan 2018

Reviewer: Alexandru Dregan

Reviewer’s report:

The authors conducted a valuable investigation into trends in colorectal cancer in primary care patients over a long period of time. Major strengths include large sample size, long-term follow-up, and valid cancer diagnosis. I have however several minor concerns that the authors may wish to consider.

Methods

It is usual procedure to exclude patients with a relevant diagnosis within 6 to 12 months from study start date when incidence is of interest.

The authors should explain in greater detail the control group, ie any matching?

May help to structure the Methods section into subheadings (ie outcome, exposure, covariates) to facilitate understanding.

More detail needs to be provided on the Statistical analysis - how were the incidence rate calculated, what about person-years. Did the authors consider using poisson regression? Did the analyses adjusted for age and gender?

It may help to consider more advanced methods, ie cumulative incidence in the presence of competing risks. Was the trend statistically significant?

Can't see the benefit of including all covariates in the Table - a variable counting the number of comorbidities would have been more informative.

Results

The authors discuss the results separately by gender, but this was not discussed in the Methods section.

Discussion
Screening participation is more important from a clinical perspective and the authors may wish to consider it in greater detail - reasons for differences in participation, changes over time etc. It is of great relevance to understand whether participation in bowel screening may account for reduced incidence etc.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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