Reviewer’s report

Title: Colonoscopy overuse in colorectal cancer screening and associated factors in Argentina: A retrospective cohort study.

Version: 0 Date: 14 Jun 2017

Reviewer: Massimo Vicentini

Reviewer’s report:

Dear Author,

The topic is really interesting. Colonoscopy is a high-spread diagnostic-therapeutic technology, but at high risk of inadequacy. The wide range of availability, versatility and defensive medicine increases the prescriptive inappropriateness of colonoscopy, with increased waiting lists and costs. Consequently, the literature reaffirms the need to monitor and reaffirm the appropriateness.

The title is clear and self-explanatory, it clearly explains what you are talking about and the type of study conducted.

Abstract:

Background and objectives: Ok and the goal of the study is clear

Methods: there is an error at the end of paragraph "in a cohort". I would better explain the construction criteria of the cohort. Were all subjects> 50 years old who have been admitted from 1 January to 31 December 2005? Explain the outcome and what was measured

Results and conclusion: ok

Main text:

Background: I would advise you to better explain which guidelines are taken as a reference (USPTF?) The various existing guidelines on colorectal cancer screening recommend very different things at different ages. For example, in Europe it is recommended immunochemical occult blood test screening every 2 years in subjects aged 50-69 years. The USPSTF recommends that screening for colorectal cancer start at age 50 years and continue until age 75 years. For adults aged 76 to 85 years, the decision to screen should be individualized, taking into account the patient's overall health and prior screening history.

Aim: What do you mean by complete colonoscopy? How is defined? Also in the method section but it is not described
Methods:

Study population: Why did not the authors introduce an upper age limit? We are talking about screening, so I would use the same range of age guidelines ... eg 50-75 years.

The elderly have a different cancer incidence, mortality and different screening complication than the younger ones. Since it is an article about the appropriateness of colonoscopy, probably colonoscopy in over 75 subjects are inappropriate.

Furthermore in table 1 there is only IQR median age, but not a descriptive analysis by age groups. A minimum and maximum range is not indicated.

I would suggest to put an upper limit to 75 years and to add a descriptive analysis by age (only the number of subject by age classes).

Discussion: page11, line 30-48: The sentence on overall mortality is very strong. The assessment on the mortality of population screening programs is difficult because it is necessary to identify the various factors that may affect the local mortality trend. Mortality for all causes has also declined sharply in the last 20 years, and it is not possible to separate all the factors involved.

Studies on sigmoidoscopy show no statistically significant reductions in mortality, but data suggests that there may still be an effect. In addition, studies with the guaiac test are too old to be taken as a reference, as the immunochemical test is much more sensitive. The lower sensitivity of Guaiac may be the reason why no incidence reduction in FOBT trials was observed, whereas now, some observational studies from screening programs using immunochemical have found an impact on incidence and incidence-based mortality. It was observed a marked difference between incidence based mortality reduction observed in the screening target age and modest non-significant reduction in the older ages outside of the screening target. (Giorgi Rossi P., et al 2015).

I agree with the authors on the appropriateness of using colonoscopy, but I would not be so drastic in asserting that screening has no effect on overall mortality.

An effect on specific cause mortality is widely demonstrated, as well as on incidence-based overall mortality.

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

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