Reviewer's report

Title: Association between anthraquinone laxatives and colorectal cancer: protocol for a systematic review and meta-analysis

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Reviewer: Serawit Deyno

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This protocol of planned systematic review tries to synthesize the safety of AQ products usage. It plans to fill evidences gap on long-term treatment with oral AQ laxatives and particularly focusing on the risk of colorectal cancer (CRC). It will provide valuable evidence on clinical decision making. However the manuscript requires extensive language edition before publication.

The following concerns should also be addressed

* "Short-term use (&lt;2 weeks) of AQa is generally safe" is written in manuscript many times without valid evidence/reference

* Cite some of potential for inclusion while providing the rationale of the study to reason there ample studies for synthesis

* The choice of random-effects model or fixed effect model should be determined after assessing the heterogeneity

* Some of the assertions are not cited; for example the statement 'Long-term use of AQs was associated with an increased risk of colorectal cancer (CRC)' is not cited. Discussion is not totally cited.

I have tried to edit the abstract part as follows, authors can adapt

Abstract:

Background: Anthraquinones (AQs) containing products are mainly used as laxative and have several biological effects and adverse events (AEs) related to their use. Long-term use of AQs was associated with an increased risk of colorectal cancer (CRC). We will systematically synthesize the evidence on potential association between AQs use and the risk of CRC.
Methods: We will search MEDLINE, Embase, Scopus, the Cochrane Library, Google Scholar, and Clinicaltrials.gov. We will also search the bibliographies of retrieved articles. Interventions will include products containing oral AQ laxatives, in particular AQs derived from rhubarb, senna, cascara, buckhorn, and aloe. Two review authors will independently screen title, abstract and full texts, and independently extract data from included studies. Primary outcome is number of subjects diagnosed with "CRC while secondary outcome will be number of melanosis coli cases. We will also consider all other AEs reported in the included studies, in particular: intestinal bleeding, alterations of gastrointestinal motility, and potential for dependence. Where possible and appropriate, for each outcome a meta-analysis will be performed.

Discussion: This protocol is prepared in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols guidelines. The protocol gives an insight into the scope and parameters for the systematic review to be carried out.

Systematic review registration: The protocol was registered in international prospective register of systematic reviews (PROSPERO), ID = CRD42019125414

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field that should be highlighted to relevant networks

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

Not suitable for publication unless extensively edited

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