Reviewer’s report

Title: Effectiveness of stop smoking interventions among adults: protocol for an overview of systematic reviews and an updated systematic review

Version: 0 Date: 19 Sep 2018

Reviewer: Alice Ordean

Reviewer’s report:

This systematic review focuses on a very significant public health concern with potential benefit for many providers. Overall, this protocol seems well-developed but I have some points that require further clarification as follows:

Section: Stop Smoking Interventions

1. The division of approved pharmacotherapies into OTC and non-OTC is not a typical approach to smoking cessation pharmacotherapies. Also, the inclusion of cytisine (a natural health product) is to be questioned since it is not routinely used by most clinicians and unlikely to have been included in any systematic reviews published to date.

2. Line 160: I would suggest also adding that role of Varenicline is to relieve cravings.

3. Line 163: It would be helpful to add a sentence about mechanism of action of Bupropion to keep this section consistent.

4. Line 222: Section on alternative therapies is very vague with only names of therapies provided. It does not seem to follow as well from previous sections. I would suggest deleting this section or mentioning which therapies will not be included in this systematic review. St. John's wort is not intended for smoking cessation so unusual herbal product to include.

Section: Objective and Key Questions

General comment: I would recommend stating clearly which "stop smoking interventions for adults" will be included in this review. These details are mentioned in table 1 but would help the reader focus in on what will be included. Also, please clarify if special populations will be included like pregnant women.

I am not sure why on line 287, it states "If feasible, the overview will also evaluate the benefits and harms of behavioural change techniques."

The process for dealing with overlapping systematic reviews is appropriate given that multiple reviews have been published on smoking cessation interventions and choosing the highest quality review will be challenging.
With respect to assessing the quality of the body of evidence - on line 607, it states "we will not consult primary studies for the purpose of conducting GRADE assessments". This approach will limit the ability to provide an accurate GRADE assessment for some of the reviews published. However, high quality reviews should have included their own quality assessments which should be available for review.

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