

Assembling, evaluating and presenting the evidence on interventions directed to consumers to improve medicines use

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Background

The Canadian Optimal Medication Prescribing and Utilization Service (COMPUS) aims to identify and promote best practices in medicine prescribing and use by healthcare professionals and consumers. The Cochrane Effective Practice and Organisation of Care (EPOC) and the Cochrane Consumers and Communication Review (CC&CRG) Groups are working with COMPUS to assemble the evidence in an online database, *Rx for Change*. We focus here on aspects of this research focussing on interventions to consumers in relation to medicines use.

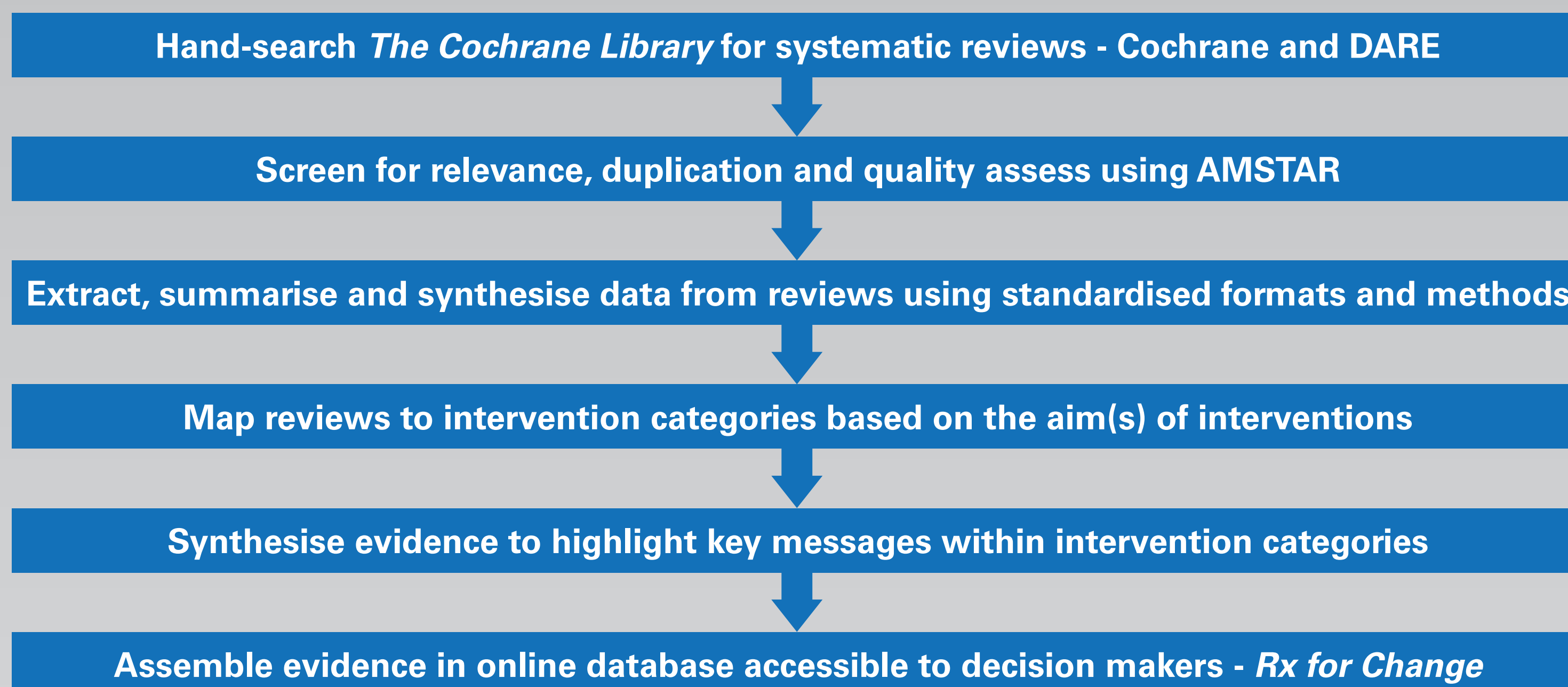
The CC&CRG takes a broad approach to medicines use interventions involving consumers [1]. Interventions can include:

- Self-management programmes or skills training to support effective medicines use
- Patient information or education to reduce the risk of harms related to medicines; and
- Practical supports (such as reminders, packaging or aids) or other support such as counseling to promote and support medicines use.

Purpose

To identify, assemble and evaluate evidence on the effects of interventions directed to consumers to improve medicines use; and to promote access to this evidence.

Methods (all steps conducted by two researchers)



Results

The Database

Evidence is summarised and presented in a publically accessible online database - *Rx for Change* database, <http://www.cadth.ca/index.php/en/compus/optimal-ther-resources/interventions>. The database is assembled in levels from overviews of the intervention evidence to specific review synopsis, to included studies. This format allows decision makers to drill down to the level of detail needed. (See Figure)

Accumulative total numbers of reviews included in each update of *Rx for Change*

Update	Consumer reviews	Professional reviews	Total reviews in update
Original (April 2007)	21	23	44
Update 1 (April 2009)	33	82	115
Update 2 (Oct. 2009)	54	124	178
Update 3 (April 2010)	63	155	218

As of April 2010, the database contains summaries of 63 reviews of interventions with a focus on consumers' use of medicines. All reviews are moderate to high quality, and have been specifically selected to provide the highest quality evidence available with minimal duplication across reviews. Evidence spans all consumer intervention categories, although some are sparsely populated while others are heavily populated with reviews.

The evidence

Many consumer-directed interventions focus on adherence, yet diverse strategies to improve medicines use also exist.

No strategy appears universally effective across all conditions and populations, yet there are promising interventions.

Some interventions (e.g. self-monitoring, simplified dosing) appear consistently effective.

For other interventions (e.g. education, support) evidence is lacking or mixed, yet this too may guide decision-makers choosing from among a range of interventions targeting consumers.

The database also helps to identify gaps in the evidence on consumers' use of medicines and where research might best happen in future.

Conclusions

A first-in-class, publicly accessible online resource has been developed for decision-makers, using rigorous methods to assemble and present evidence on interventions to improve consumers' medicines use. The methods ensure that only the highest quality systematic reviews available are included, and that evidence on interventions is not duplicated. The growth in the number of reviews included in successive updates of the database therefore reflects true growth in the area and an expanding evidence base on consumers' use of medicines available to decision makers.

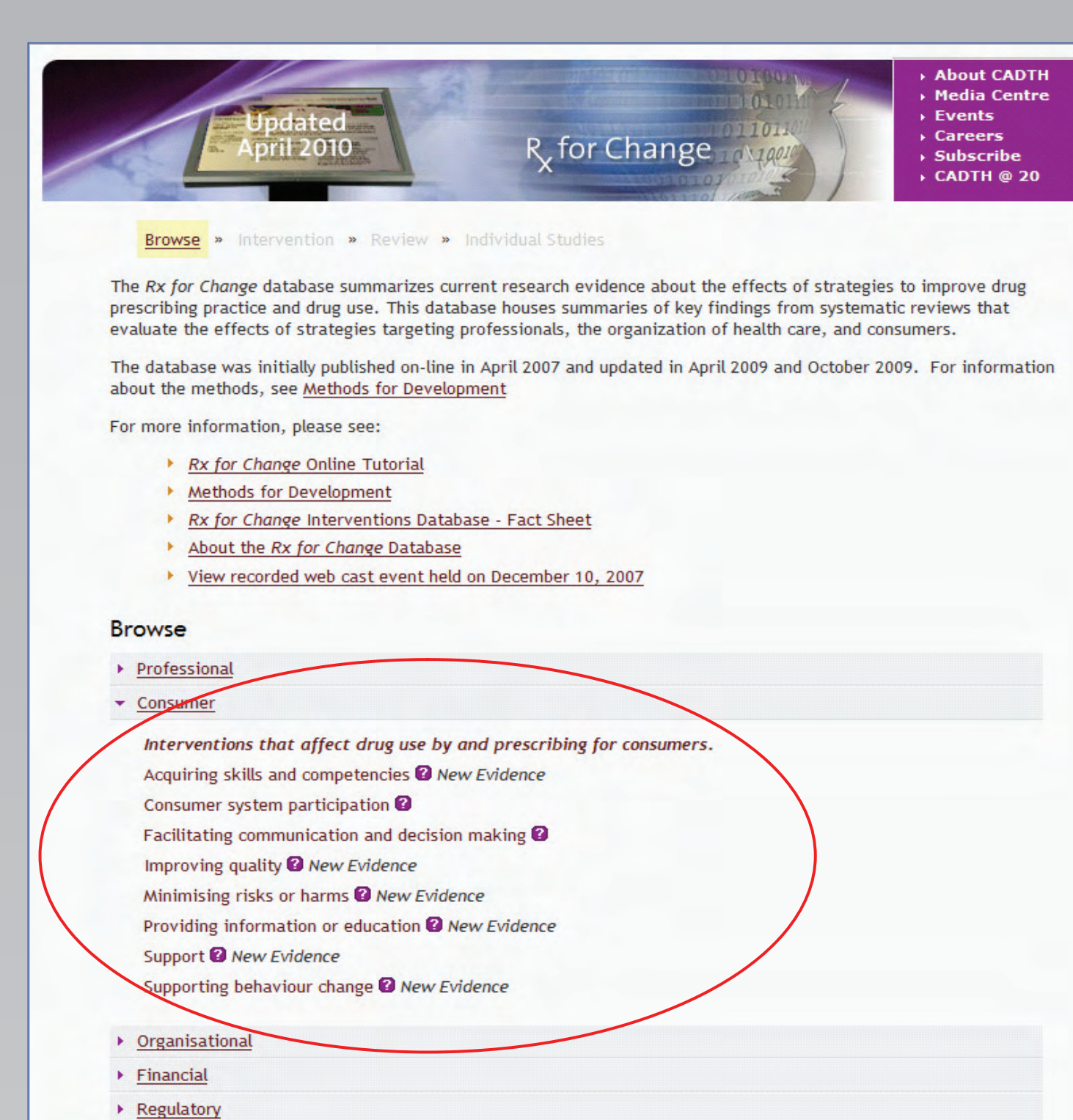
Acknowledgements

This work is part of a larger project to develop and maintain the *Rx for Change* database (available at: <http://www.cadth.ca/index.php/en/compus/optimal-ther-resources/interventions/browse>), jointly undertaken by the Cochrane Effective Practice and Organisation of Care and the Cochrane Consumers and Communication Review Groups, and supported by the Canadian Optimal Medication Prescribing and Utilization Service (COMPUS), a nationally coordinated programme of the Canadian Agency for Drugs and Technologies in Health (CADTH).

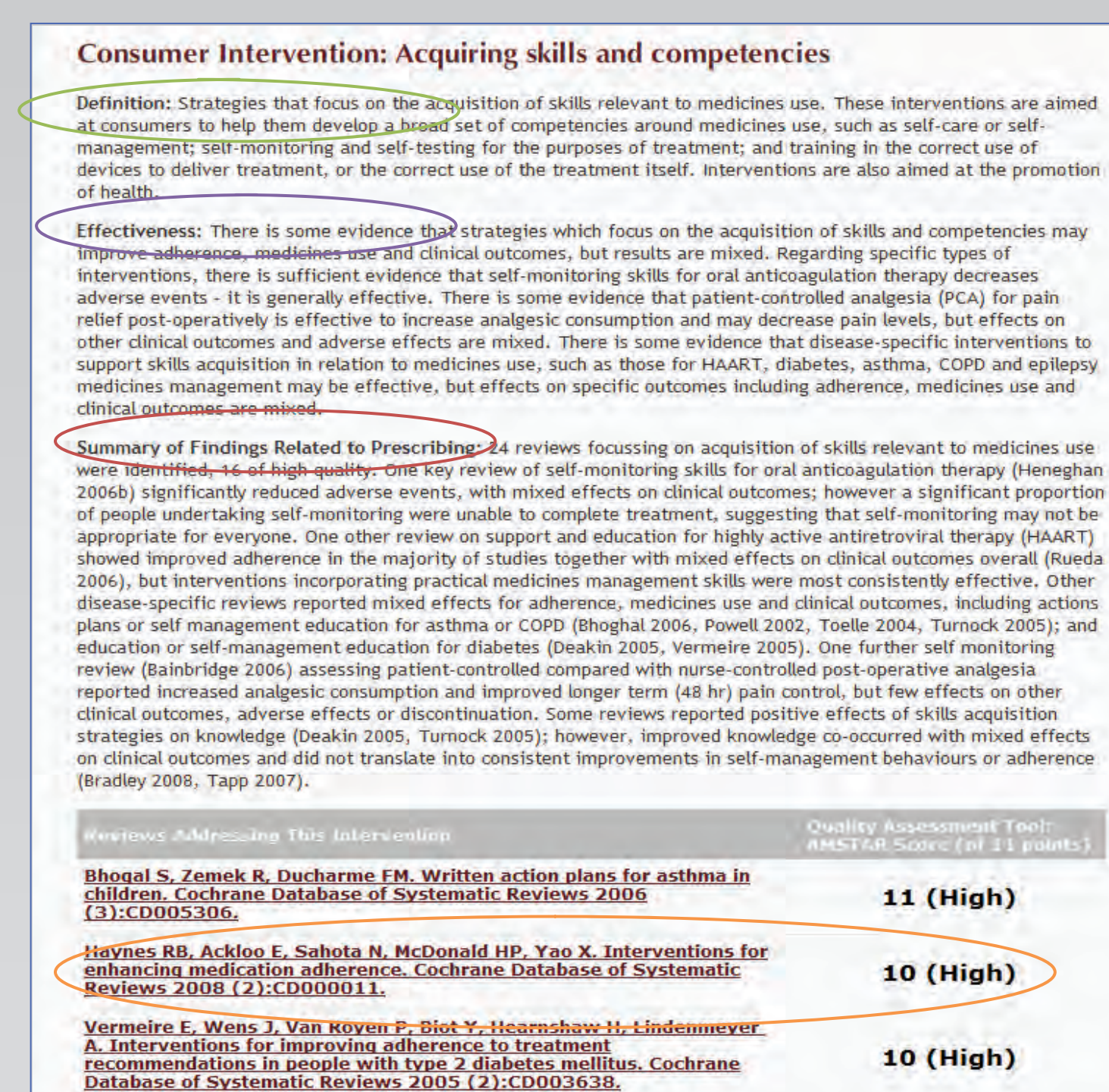
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References

[1] Ryan R, Santesso N, Hill S, Kaufman C, Grimshaw J. **Consumer-oriented interventions for evidence-based prescribing and medicine use: an overview of Cochrane reviews (Protocol)**. Cochrane Database of Systematic Reviews 2008, Issue 4. Art. No.: CD007508. DOI: 10.1002/14651858.CD007508.



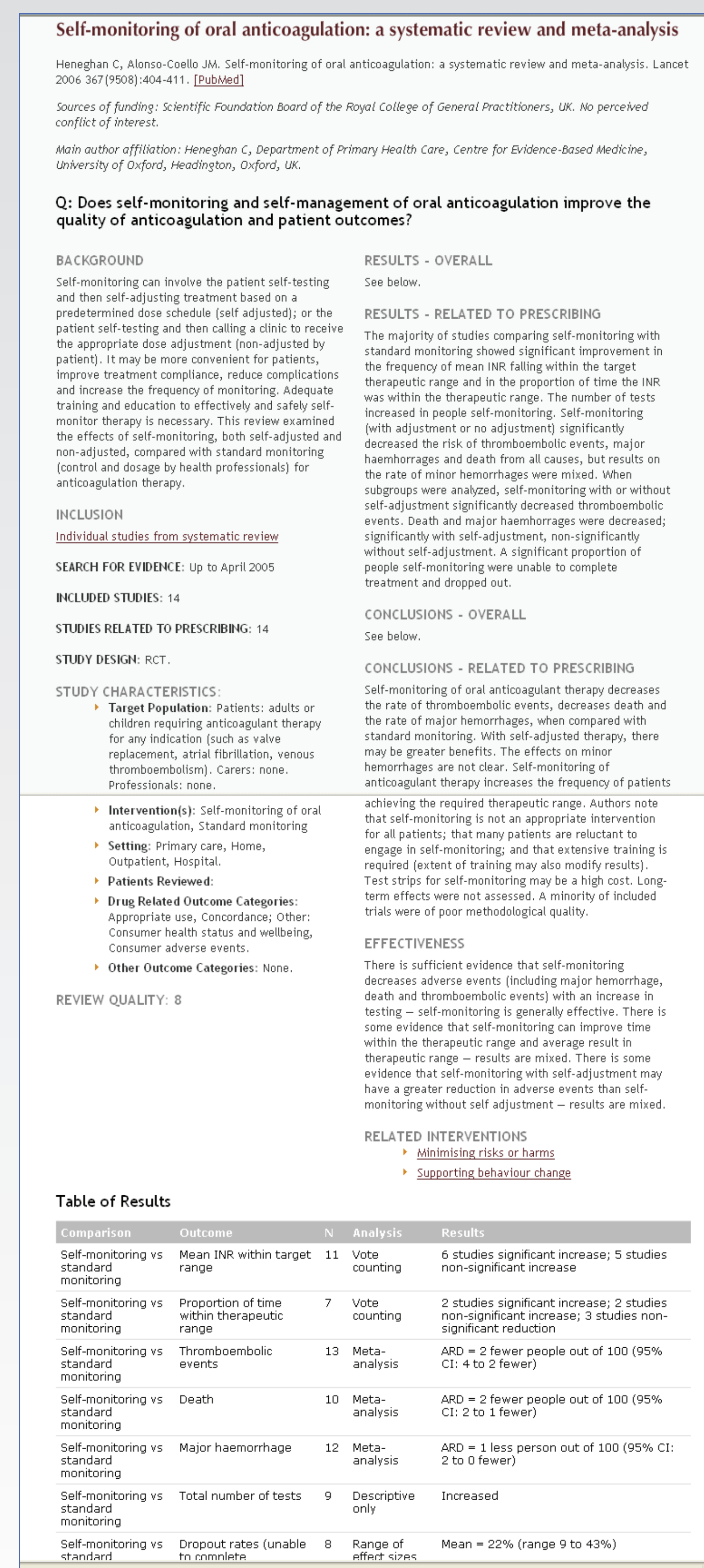
Level 1: Intervention category level: identifies the major aims of interventions that affect consumers' use of medicines. The categories provide a basis from which to access the evidence.



Level 2: Overview of evidence within an intervention category: summarises the overall evidence from reviews mapped to the category. The overview includes:

- a definition of the interventions,
- a statement of overall effectiveness,
- and a summary of findings related to prescribing across reviews in the category.

All individual reviews mapped to the category are listed and linked to summaries (level 3).



Level 3: Systematic review synopsis level: provides a synopsis of each review. This information is more than a summary of the background, results and conclusions. It also includes a rating of review quality; presents results quantitatively and descriptively using standardised language; and provides bottom-line statements about intervention effectiveness.