



# Double check: accuracy of deduplicators for abstract screening

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## What?

Abstracts uploaded to the Crystallise [Evidence Mapper](#) as part of a systematic literature review (SLR) are automatically deduplicated by our in-house software. We compared the accuracy of our deduper with other commercially available tools for identifying duplicates from three equivalent searches each of the PubMed, Embase and Cochrane Library databases.

## Why?

Accuracy matters. Missed duplicates add to the time needed to screen but abstracts incorrectly removed as duplicates mean that potentially relevant publications are excluded in error. We want to be able to trust our deduper without having to check its decisions, to maximise efficiency during the SLR process.

Searches were run to find papers on: 1. Quality of life associated with chocolate; 2. Quality of life associated with coffee and 3. Mortality associated with red wine. Dedupers from the Evidence Mapper, EndNote (v20.6), Zotero (v 6.0.3) and Mendeley (v 2.109.0) were compared with the gold standard of expert human assessment.

Deduplication Tool	Accuracy (number of duplicates/ number of abstracts)			
	QoL with chocolate (24/285)	QoL with coffee (90/587)	Mortality with red wine (17/561)	Combined (131/1433)
Evidence Mapper	100%	99.7%	99.6%	99.7%
EndNote	93.7%	97.6%	98.9%	97.3%
Mendeley	99.3%	100%	100%	99.9%
Zotero	99.3%	99.0%	99.6%	99.3%

## Who?

Conducting SLRs means processing a lot of information as quickly and accurately as possible. Being able to rely on a deduper as part of an ergonomic SLR platform to minimize unnecessary abstract screening time can reduce stress and improve efficiency within the SLR team.

## Author Comments

The deduper within our Evidence Mapper platform compares favourably with equivalent software that is widely used in the SLR field. Crucially, no unique publication was incorrectly tagged as a duplicate, meaning that no potentially relevant study would be excluded by our deduper. The Evidence Mapper platform is an efficient new option to support the SLR process.