



Tools for Systematic Reviews & Meta-Analyses

A practical reference guide to every stage of the workflow, what to use, what alternatives exist, and why.

- Tested & recommended tools, clearly marked
- Genuine alternatives at every stage
- A complete end-to-end workflow



Written from practitioner experience across published systematic reviews and meta-analyses, including network meta-analyses registered on INPLASY.



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HOW TO USE THIS GUIDE

This guide is organised by stage of the review workflow, from protocol registration through to certainty rating. At each stage, one tested and recommended tool is marked distinctly from genuine, unTested alternatives, so you always know what has been directly verified in practice versus what is a legitimate, informed choice.

1 Tested Tools vs Genuine Alternatives

The single convention used consistently throughout this guide

This guide is organised by stage of the review workflow, from protocol registration through to certainty rating. At each stage, one of two formats is used consistently throughout, the visual grammar below is worth learning once, since it repeats at every stage that follows.



Tested & Recommended

Used directly in completed projects



Alternative Option

A genuine choice, not yet tested here

★ TESTED & RECOMMENDED

Shown as a coloured tool card, used directly across the completed systematic review, meta-analysis, and network meta-analysis projects this series draws on. Genuine, first-hand recommendations, not generic best-practice suggestions.

ALTERNATIVE OPTIONS

Shown in a plain comparison table, real, legitimate options other researchers use at the same stage, not personally tested as part of this series. Genuine trade-offs (cost, learning curve, feature depth) are stated plainly, not left implicit.

Neither format is a judgement on quality. A tool appearing as an "alternative" may suit your workflow better than the tested recommendation, the distinction is about what has been directly verified in practice, not what is objectively best for every reviewer.

2 Where the Review Becomes Accountable

Registering before the search begins

INPLASY

Tested & recommended

- The International Platform of Registered Systematic Review and Meta-Analysis Protocols.
- Accepts a broad range of review types, systematic reviews, meta-analyses, network meta-analyses, and reviews in progress, with typically faster turnaround than the main alternative below.
- Produces a citable DOI and a publicly accessible registration record, expected by reviewers to precede the search date.
- Fee-based, unlike the main alternative.

☐☐ ALTERNATIVE OPTION

OPTION	HOW IT COMPARES
PROSPERO	Free; the most widely recognised registry, and often preferred or required by Cochrane-affiliated and top clinical journals. Scope is more limited to health-related reviews, and the review period (typically 1–2 weeks) is often slower than INPLASY.



WHAT MAKES A REGISTRATION STRONG, REGARDLESS OF PLATFORM

PICOS-framed research question; full eligibility criteria; planned databases and date ranges; screening and extraction procedures; the risk-of-bias tool to be used; and the full statistical analysis plan. Register before the search begins, a registration date after the search started is not considered prospective.

3 Before Screening Begins

Automated detection is a first pass, never the last word

Zotero

Tested & recommended

- Free, open-source, browser-integrated reference manager with strong multi-database import and export functionality (RIS and BibTeX).
- Automated duplicate detection based on title, author, and year matching, effective for clear duplicates, but misses near-duplicates with minor formatting differences.
- Manual verification after automated detection is essential regardless of tool; treat this as a two-step process, not a single automated pass.
- Does not natively export PRISMA flow data, deduplication counts must be tracked manually as records are processed.

ALTERNATIVE OPTIONS

OPTION	HOW IT COMPARES
EndNote	A long-established, feature-rich reference manager with generally more sophisticated deduplication matching than Zotero's. Paid licence, widely used in institutional settings.
Mendeley	Free reference manager with PDF annotation and reference organisation features; broadly comparable deduplication capability to Zotero. A reasonable substitute depending on personal or institutional preference.
Rayyan / Covidence	Perform deduplication within their own built-in screening workflow rather than as a separate reference-management step, relevant if you plan to use either as your screening platform (see Section 4).
ASySD / SyRF	Purpose-built automated deduplication tools aimed at large reviews (several thousand records), offering more thorough matching than a general reference manager for that specific task.



THE UNIVERSAL BEGINNER MISTAKE HERE

Whichever tool is used, relying solely on automated deduplication is the most common error at this stage. A false-positive duplicate removal, deleting a record that was actually eligible, is very difficult to catch later. Always manually review suspected duplicates before confirming removal, and document exactly how many duplicates were removed for the PRISMA flow diagram.