

Systematische Literaturrecherche- Dokumentation

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(Workshopmanagement)

Zuverlässige Evidenz.
Informierte Entscheidungen.
Bessere Gesundheit.



Darlegung von Interessenskonflikten

- Wissenschaftliche Mitarbeiterinnen der Cochrane Deutschland Stiftung, Freiburg
- Wissenschaftliche Mitarbeiterin am Institut für Evidenz in der Medizin, Universitätsklinikum Freiburg
- Die Referentinnen versichern, dass in Bezug auf den Inhalt des folgenden Vortrags in den letzten 3 Jahren keine Interessenskonflikte bestanden, die sich aus Beziehungen zu einem Unternehmen ergeben (z. B. einem Beschäftigungsverhältnis, einer Beratertätigkeit oder finanziellen Zuwendungen für Forschungsvorhaben, Vorträge oder andere Tätigkeiten).

Lernziele

- Kriterien der Reproduzierbarkeit, Transparenz und Vollständigkeit der Dokumentation von Literaturrecherchen in Publikationen verstehen
- Einhalten von Publikationsstandards zur Verbesserung der Qualität und Transparenz bei der Berichterstattung von Evidenzsynthesen

Überblick

Fragestellung
definieren



Systematisch
recherchieren



Literatur
exportieren



Recherche
dokumentieren



Standards Dokumentation

Beispiel

Bewertung (PRESS)

Publikationsstandards für Systematic Reviews

PRISMA Statement

**Preferred Reporting Items for
Systematic Reviews and Meta-
Analyses**

www.prisma-statement.org

MECIR

**Methodological Expectations of
Cochrane Intervention Reviews**

[www.editorial-
unit.cochrane.org/mecir](http://www.editorial-unit.cochrane.org/mecir)

<https://community.cochrane.org/sites/default/files/uploads/Version%20March%202020%20Final%20Online%20version.pdf> (Stand 16.12.20)

PRISMA Statement

Preferred **R**eporting **I**tems for **S**ystematic Reviews and **M**eta-
Analyses

- dient der Einhaltung von Qualitätsstandards bei der Erstellung und Berichterstattung von Systematic Reviews
- beinhaltet PRISMA Checklist und PRISMA Flow Diagram
- Start 2009, mittlerweile verschiedene Erweiterungen, z. B. für Protokolle oder Scoping Reviews

PRISMA Statement

Angabe von....

- Datenbanken und der Anbieter/Plattformen
- Weitere Quellen, z.B. Studienregister, Handsuche, Citation Tracking
- Datum, an dem die Suche durchgeführt wurde
- Zeitliche Abdeckung der Suche
- Suchstrategien separat pro Datenbank: vollständige Strategie von mindestens einer Datenbank

PRISMA Checklist (2009)



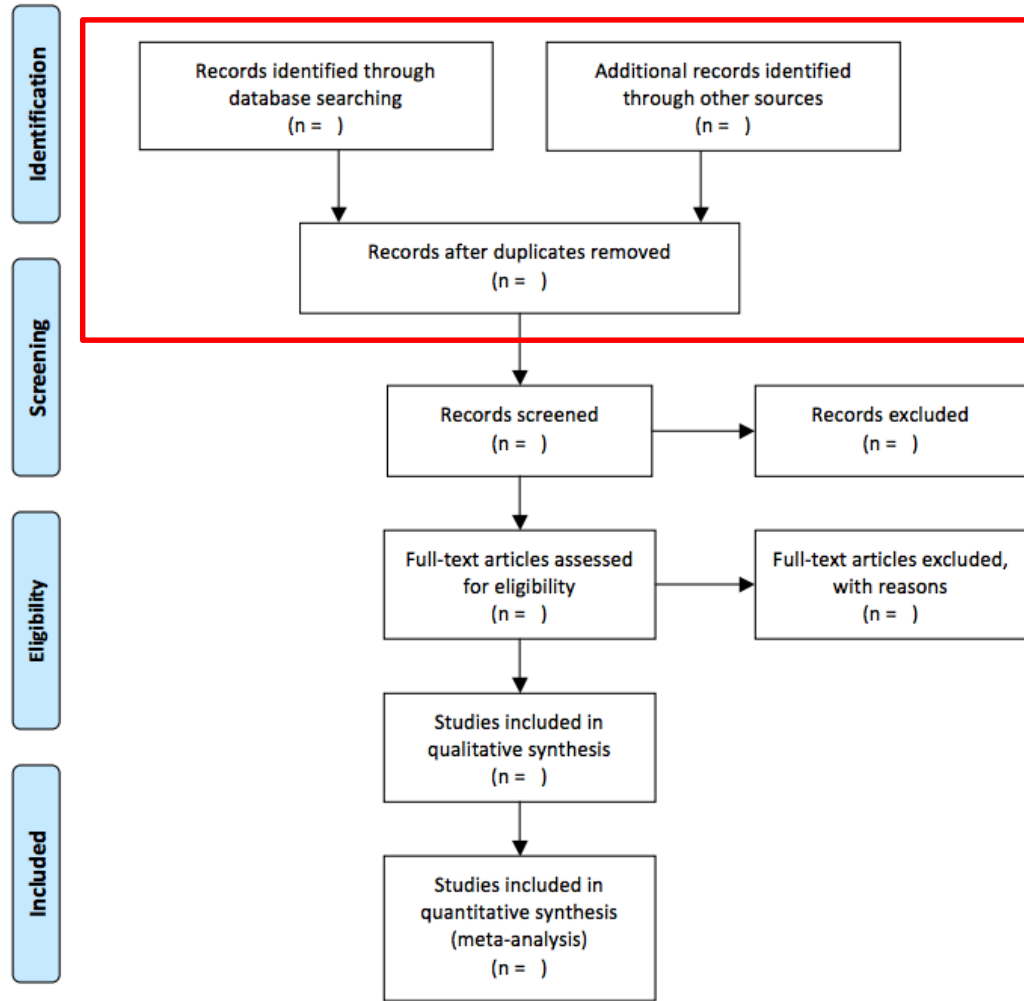
PRISMA 2009 Checklist

Section/topic	#	Checklist item
TITLE		
Title	1	Identify the report as a systematic review, meta-analysis, or both.
ABSTRACT		
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria; participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.
INTRODUCTION		
Rationale	3	Describe the rationale for the review in the context of what is already known.
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).
METHODS		
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.
RESULTS		
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.

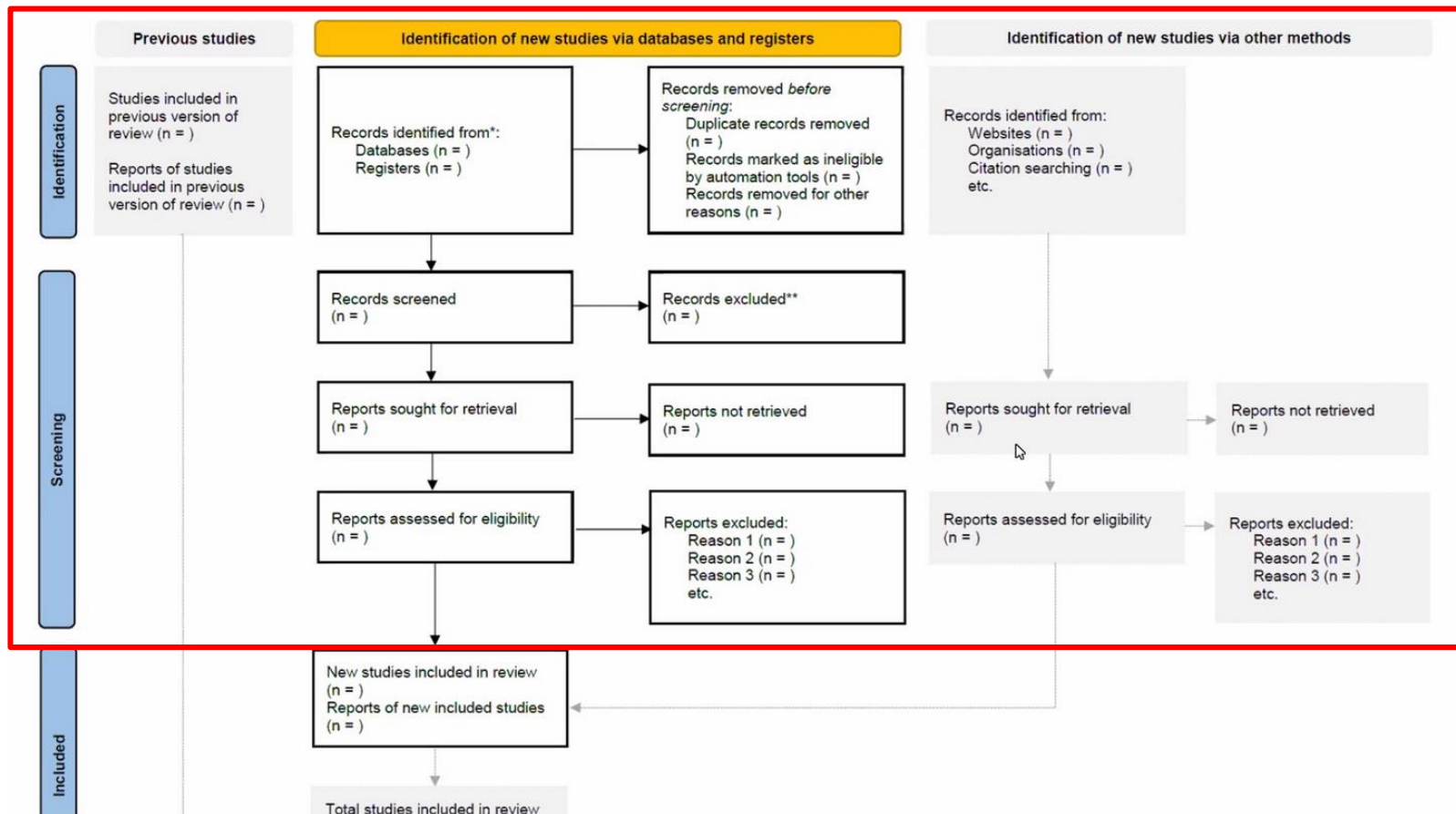
PRISMA Checklist (2020)

Section	#	Checklist item
METHODS		
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.
Section	#	Checklist item
Search strategy	7	Ppresent the full search strategies for all databases, registers and websites, including any filters and limits used.
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.

PRISMA Flow Diagram (2009)



PRISMA Flow Diagram(2020)



Publikationsstandards für verschiedene Studientypen



Enhancing the **QUALITY** and
Transparency Of health Research



EQUATOR resources in
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Your one-stop-shop for writing and publishing high-impact health research

find reporting guidelines | improve your writing | join our courses | run your own training course | enhance your peer review | implement guidelines



Library for health research reporting

The Library contains a comprehensive searchable database of reporting guidelines and also links to other resources relevant to research reporting.



**Search for reporting
guidelines**



**Not sure which reporting
guideline to use?**



**Reporting guidelines
under development**



**Visit the library for
more resources**



Reporting guidelines for main study types

[Randomised trials](#)

[Observational studies](#)

[Systematic reviews](#)

[Study protocols](#)

[Diagnostic/prognostic
studies](#)

[Case reports](#)

[Clinical practice guidelines](#)

[Qualitative research](#)

[Animal pre-clinical studies](#)

[Quality improvement studies](#)

[Economic evaluations](#)

[CONSORT](#) [Extensions](#)

[STROBE](#) [Extensions](#)

[PRISMA](#) [Extensions](#)

[SPIRIT](#) [PRISMA-P](#)

[STARD](#) [TRIPOD](#)

[CARE](#) [Extensions](#)

[AGREE](#) [RIGHT](#)

[SRQR](#) [COREQ](#)

[ARRIVE](#)

[SQUIRE](#)

[CHEERS](#)

[See all 442 reporting guidelines](#)



PRISMA Extensions (Auszug)

- PRISMA for **Abstracts**
- PRISMA-P: for Systematic review and Meta-Analysis **Protocols**
- PRISMA NMA: for **Network Meta-Analyses**
- PRISMA-ScR: for **Scoping Reviews**
- PRISMA-DTA: for **Diagnostic Test Accuracy**
- In Vorbereitung:
 - ▶ PRISMA-C: Systematic Review & Meta-Analyses for Children
 - ▶ PRISMA-PC: Systematic Review & Meta-Analyses - Protocols for Children

Publikationsstandards für Systematic Reviews

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MECIR

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MECIR

Methodological Expectations of Cochrane Intervention Reviews

- Grundsätzlich: Suchprozess so detailliert wie möglich dokumentieren (Reproduzierbarkeit)
- alle durchsuchten Quellen (inkl. Datenbanken, Studienregister, Webseiten und graue Literatur)
- Namen der Datenbanken (inkl. Angabe der Plattform/Anbieter, Datum Erfassung von Webseiten (vollständiger Name + URL)
- Suche in Referenzlisten angeben, kontaktierte Einzelpersonen oder Organisationen

MECIR Manual

STANDARDS FOR THE REPORTING OF NEW COCHRANE INTERVENTION REVIEWS	75
Key points and introduction	76
Reporting review conduct	77
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MECIR Manual

Methodological Expectations of Cochrane Intervention Reviews (MECIR)

88

URL: <https://community.cochrane.org/mecir-manual/standards-reporting-new-cochrane-intervention-reviews-r1-109/reporting-review-conduct-r1-55/search-methods-identification-studies-r33-38>

1.26 Search methods for identification of studies

Cochrane Training resource: [searching for studies](#)

Cochrane Interactive Learning: [module 3 - searching for studies](#)

Standard	Rationale and elaboration	
R33 Search sources		Mandatory
List all sources searched, including: databases, trials registers, websites and grey literature. Database names should include platform or provider name (or both), and dates of coverage; websites should include full name and URL. State whether reference lists were searched and whether individuals or organizations were contacted.	<i>MECIR conduct standard 36:</i> Document the search process in enough detail to ensure that it can be reported correctly in the review. Also <i>MECIR conduct standards 24–31</i> See <i>Handbook</i> (version 6) Section III.3.3.2, Section 1.5; 4.3.1.1 and Section 4.4.5	

Exemplarische Fragestellung:

Verringert das Tragen von Fahrradhelmen Kopfverletzungen bei Fahrradfahrern?



Elemente der Fragestellung in Blöcken

	Textworte	MeSH
P	bicycl* OR cycling OR cyclist*	"Bicycling"[Mesh]
I	helmet* OR „head protection“ OR “head protective device”	"Head Protective Devices"[Mesh]
C	„No helmet“ OR unhelmeted	
O	(head OR skull OR brain OR neck OR face OR facial) AND (injur* OR fractur* OR trauma*)	"Head Injuries, Penetrating"[Mesh] OR "Head Injuries, Closed"[Mesh] OR "Facial Injuries"[Mesh] OR "Neck Injuries"[Mesh] OR "Craniocerebral Trauma"[Mesh]
Filter	Studientyp, Zeitraum, Sprache	

Search History (PubMed) CSV-Datei / Excel

History and Search Details

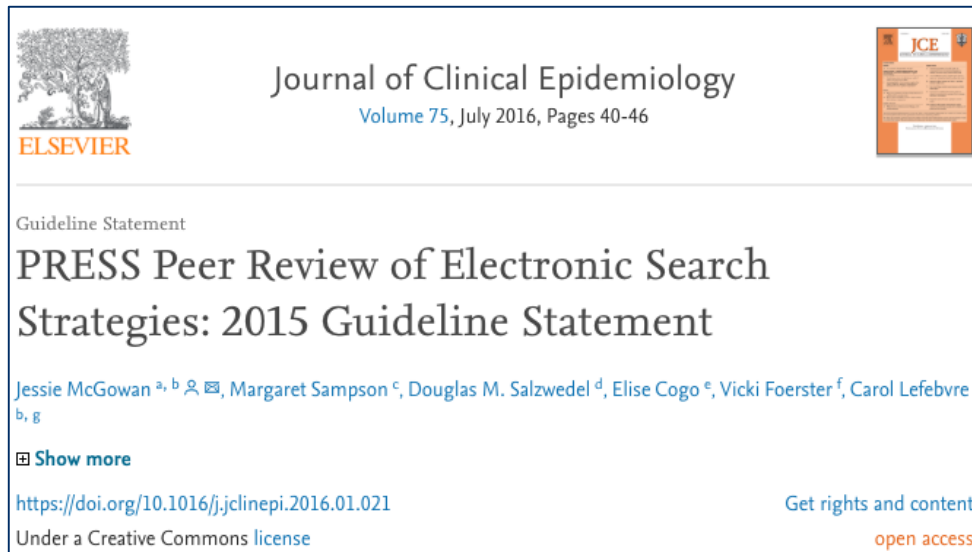
 Download  Delete

Search	Actions	Details	Query	Results	Time
#14	...	>	Search: #10 AND #11 AND #13 Sort by: Most Recent	834	12:39:44
#13	...	>	Search: #9 OR #12 Sort by: Most Recent	309,199	12:39:19
#12	...	>	Search: #7 AND #8 Sort by: Most Recent	220,526	12:38:55
#11	...	>	Search: #3 OR #4 Sort by: Most Recent	6,670	12:38:45
#10	...	>	Search: #1 OR #2 Sort by: Most Recent	759,509	12:38:36
#9	...	>	Search: "Head Injuries, Penetrating"[Mesh] OR "Head Injuries, Closed"[Mesh] OR "Facial Injuries"[Mesh] OR "Neck Injuries"[Mesh] OR "Craniocerebral Trauma"[Mesh] Sort by: Most Recent	167,218	12:38:27
#8	...	>	Search: injur*[Title/Abstract] OR fractur*[Title/Abstract] OR trauma*[Title/Abstract] Sort by: Most Recent	1,276,321	12:37:40
#7	...	>	Search: head[Title/Abstract] OR skull[Title/Abstract] OR brain[Title/Abstract] OR neck[Title/Abstract] OR face[Title/Abstract] OR facial[Title/Abstract] Sort by: Most Recent	1,743,154	12:37:20
#4	...	>	Search: "Head Protective Devices"[Mesh] Sort by: Most Recent	3,623	12:35:53
#3	...	>	Search: helmet* OR „head protection" OR "head protective device" Sort by: Most Recent	6,670	12:35:44
#2	...	>	Search: "Bicycling"[Mesh] Sort by: Most Recent	11,409	12:35:29
#1	...	>	Search: bicycl* OR cycling OR cyclist* Sort by: Most Recent	759,509	12:35:10

PRESS – Bewertung von Suchstrategien

Peer Review of Electronic Search Strategies

Qualitätskriterien für Suchstrategien in SRs und HTA-Reports



PRESS – Checklist (1)

Translation of the research question	✓ Has the research question been translated correctly into search concepts (e.g. PICO), i.e. does the search strategy match the research question? ✓ Are the search concepts clear? ✓ Are there 'too many' search concepts? ✓ Are any of the search concepts too narrow or too broad? ✓ Does the search appear to retrieve too many or too few records?
Boolean and proximity operators	✓ Are there any mistakes in the use of Boolean or proximity operators? ✓ Are there any mistakes in the use of nesting with brackets? ✓ If NOT is used, is this likely to result in any unintended exclusions? ✓ Could precision be improved by using proximity operators (e.g. adjacent, near, within) instead of AND. ✓ Is the width of any proximity operators correct?
Subject headings	✓ Are the subject headings relevant? ✓ Are subject headings missing? ✓ Are any subject headings too broad or too narrow? ✓ Are subject headings exploded where necessary and vice versa? ✓ Are sub-headings attached to subject headings? (Floating subheadings may be preferred.) ✓ Are sub-headings used instead of relevant subject headings and vice versa? ✓ Are both subject headings and <i>natural language terms</i> (see below) used for each concept? ○ If there is a reason provided for not doing so, does the reason appear sound?

PRESS – Checklist (2)

Natural language (also free-text or text-word)	✓ Does the search miss any spelling variants in free-text? ✓ Does the search miss any synonyms? ✓ Does the search miss truncation or truncate at the wrong point? ✓ If an acronym or abbreviation is used, is the full term also included? ✓ Are apparently irrelevant or excessively broad natural language terms used?
Spelling, syntax and line numbers	✓ Are there any spelling errors? ✓ Are there any errors in system syntax or wrong line numbers?
Limits and filters	✓ Do any of the limits used seem unwarranted? ✓ Are any filters used appropriate for the topic? ✓ Are any potentially helpful limits or filters missing? ✓ Is starring (restrict to focus) used and if so, is there adequate justification for this?
Search strategy adaptations	✓ Does the searcher indicate that the search strategy has been adapted for additional databases and / or interfaces? ✓ Are the adaptations available for review and correct?

Praxisabgleich

Beispiele (wenige Informationen)

Methodik

Die **Datenbanken PubMed und Medline** wurden systematisch nach Publikationen zur taTME bzw. TAMIS im **Zeitraum** vom 01.01.2015 bis zum 15.05.2018 durchgesehen. Als **Suchbegriffe** wurden verwendet: „transanal“, „transanal total mesorectal excision“ oder „taTME“, „transanal minimally invasive surgery“ oder „TAMIS“, „total mesorectal excision“ oder „TME“ and „rectal cancer“.

Results

le. Von initial **111 Referenzen** wurden letztlich **16 Studien** (11 vergleichende Studien, 2 Fallserie, 3 Metaanalyse) mit insgesamt **3782 Patienten** als relevant in die Analyse eingeschlossen.

Praxisabgleich

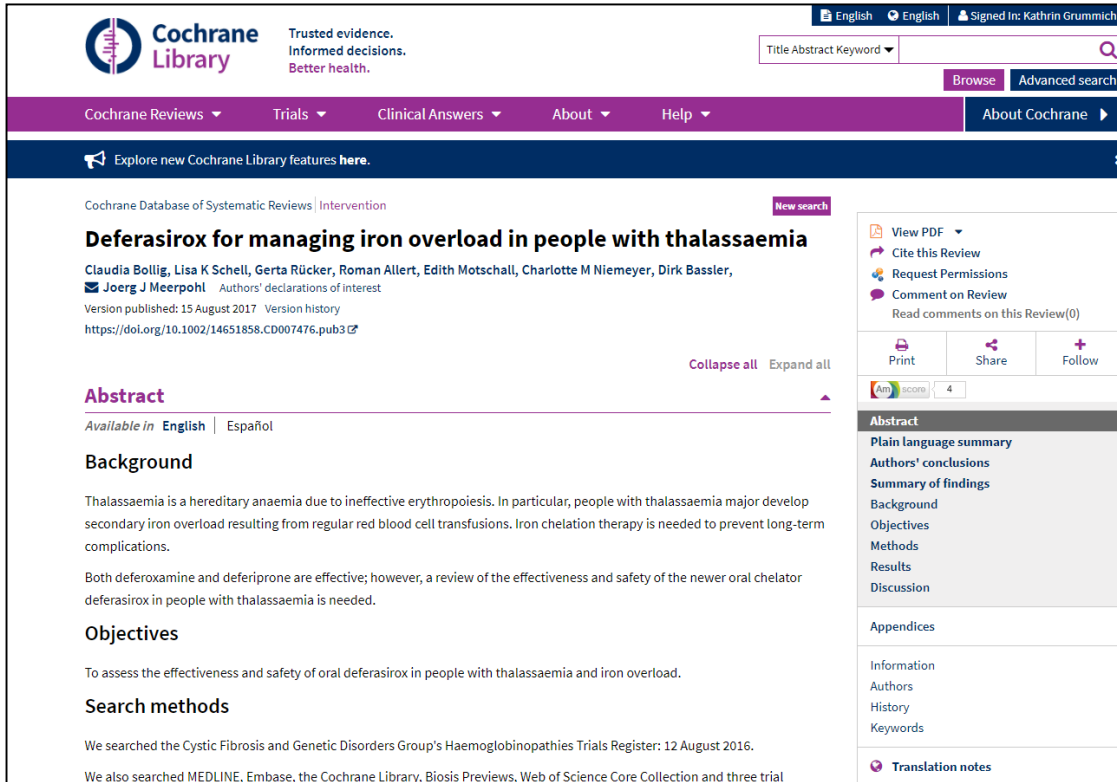
Search Strategy - Beispiele (wenige Informationen)

METHODS

Data sources and searches

This study followed the guidelines detailed in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Extension Statement for systematic reviews incorporating network meta-analyses.²⁰ An extensive search of MEDLINE, EMBASE and CENTRAL databases from inception to 24 November 2017 was undertaken using the following key search terms: (low back pain OR lower back pain) AND prevent* AND random* AND control*. The reference lists cited in relevant systematic reviews and included trials were also screened. The searches were independently completed by two investigators (JL and ZM).

Reporting der Search Methods in einem Cochrane Review (vollständige Informationen)



The screenshot shows the Cochrane Library interface. At the top, there's a search bar with the text 'Title Abstract Keyword' and a search button. Below the search bar, there's a navigation menu with links to 'Cochrane Reviews', 'Trials', 'Clinical Answers', 'About', 'Help', and 'About Cochrane'. The main content area displays the title 'Deferasirox for managing iron overload in people with thalassaemia' and the authors 'Claudia Bollig, Lisa K Schell, Gerta Rücker, Roman Allert, Edith Motschall, Charlotte M Niemeyer, Dirk Bassler, Joerg J Meerpohl'. The publication date is '15 August 2017'. The abstract is visible, starting with 'Thalassaemia is a hereditary anaemia due to ineffective erythropoiesis. In particular, people with thalassaemia major develop secondary iron overload resulting from regular red blood cell transfusions. Iron chelation therapy is needed to prevent long-term complications. Both deferoxamine and deferasiprone are effective; however, a review of the effectiveness and safety of the newer oral chelator deferasirox in people with thalassaemia is needed.' The search methods section is also visible, stating 'We searched the Cystic Fibrosis and Genetic Disorders Group's Haemoglobinopathies Trials Register: 12 August 2016. We also searched MEDLINE, Embase, the Cochrane Library, Biosis Previews, Web of Science Core Collection and three trial'.

Literaturempfehlungen

- Koffel JB, Rethlefsen ML. **Reproducibility of Search Strategies Is Poor in Systematic Reviews** Published in High-Impact Pediatrics, Cardiology and Surgery Journals: A Cross-Sectional Study. PLoS One. 2016;11(9):e0163309.
- Faggion CM et al: The **search and selection for primary** studies in systematic reviews published in dental journals indexed in MEDLINE **was not fully reproducible**. Journal of Clinical Epidemiology. 2018;98:53-61.
- Li F, et al. **Examining Reproducibility of Literature Search** in Meta-Analysis. Stud Health Technol Inform. 2019;264:228-232

Kerninformationen einer Suche

- **Datenbanken** / Anbieter
- **Datum** der Suche
- **Zeitraum** (zeitliche Abdeckung der Datenbank, update Status)
- **Anzahl der Treffer** (vor und nach Deduplikation)

Datenbank	Anbieter/ Host	Date of search 29-05-2020	Treffer
Medline	Ovid	May 28, 2020	478
Web of Science Core Collection: Science Citation Index Expanded	Clarivate Analytics	Data last updated: 2020-05-28	508
Science Direct	Elsevier	not given	101
Cochrane Library	Wiley	Issue 5 of 12, May 2020	145
		TOTAL	1232
		After deduplication	721

Fazit

- Planen Sie Ihre Suche sorgfältig - orientieren Sie sich bei Ihrem Vorgehen an den PRISMA und/oder MECIR Kriterien
- Notieren Sie die entsprechenden Daten zur Dokumentation Ihrer Recherche schon während der Suche
- Nutzen Sie dabei die Checklisten-Kriterien als Grundlage

Cochrane Workshops

2021

Systematische Literaturrecherche – Kurzwebinare

- **Cochrane Library**
- **MEDLINE *via* Ovid**
- **Suche in Studienregistern**
- **Ergänzende Datenbanken**



**Vielen Dank für Ihre
Aufmerksamkeit!**

Kontaktdaten workshops@cochrane.de

Teilen Sie uns gern Ihre Themenwünsche
zur Kurzwebinar-Reihe „Lunch & Learn“ mit.

