



TARTU ÜLIKOOL

Süsteemaatilise ülevaate (ja metaanalüüsi) kvaliteedi hindamine



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Käsitletavat teemad

1. AMSTAR tööriist

2. ROBIS töövahend (3 etappi)

3. Praktiline ülesanne

Süsteematilise ülevaate ja metaanalüüsi hindamine ROBIS töövahendiga



1. AMSTAR tööriist

AMSTAR

... on Eesti ravijuhendite koostamise käsiraamatus soovitatud süstemaatiliste ülevaadete kvaliteedi hindamise tööriist

http://www.ravijuhend.ee/uploads/userfiles/ravijuhendi_kasiraamat_est.pdf (lk 37)

Tööriista puudused:

- kvaliteedinäitajate nimekiri (ingl *checklist*)
 - hinnangud kvaliteedinäitajatele üldised, põhjendusteta
-
- ➔ kvaliteedi hindamisel üldine suund nimekirjapõhiselt hindamiselt valdkonnapõhisele hindamisele
 - ➔ kvaliteedi täpsema ja selgema (läbipaistvama) hindamise vajadus



2. ROBIS töövahend



ROBIS töövahend

Süsteemaatiliste ülevaadete kvaliteedi hindamise töövahend **ROBIS**

<http://www.bristol.ac.uk/social-community-medicine/projects/robis/robis-tool/>

University of Bristol

School of Social and Community Medicine

Süsteemaatiliste ülevaadete kvaliteedi hindamisel 3 etappi:

- (1) ülevaate asjakohasuse (ingl *relevance*) hindamine [valikuline etapp]
- (2) ülevaate koostamise protsessi mure(kohta)de kindlakstegemine
- (3) ülevaate nihkevõimaluste (ingl *risk of bias*) hindamine



ROBIS töövahend: hindamise 1. etapp

- Pane kirja oma (koostatava ravijuhendi) kliiniline küsimus (ingl *target question*)
- Pane kirja hinnatava süstemaatilise ülevaate uurimisküsimus (ingl *review question*)
- Kas need 2 küsimust ühtivad?

Intervention reviews:

Category	Target question (e.g. overview or guideline)	Review being assessed
Patients/Population(s):		
Intervention(s):		
Comparator(s):		
Outcome(s):		

Does the question addressed by the review match the target question?

YES/NO/UNCLEAR



ROBIS töövahend: hindamise 2. etapp

Süstemaatiliste ülevaadete kvaliteedi hindamise 2. etapis hinnatakse nelja valdkonda, milles süstemaatilise ülevaate koostamise käigus võib nihe tekkida:

- 2.1. uuringute ülevaatesse kaasamise kriteeriume (ingl *study eligibility criteria*)
- 2.2. uuringute tuvastamist ja valimist (ingl *identification and selection*)
- 2.3. uuringutest andmete kogumist (ingl *data collection*) ja uuringute hindamist (ingl *study appraisal*)
- 2.4. andmete sünteesi ja ülevaate tulemusi (ingl *synthesis and findings*)

ROBIS töövahend: 2.1. uuringute ülevaatesse kaasamise kriteeriumid (1)

Phase 2: Identifying concerns with the review process

DOMAIN 1: STUDY ELIGIBILITY CRITERIA

Describe the study eligibility criteria, any restrictions on eligibility and whether there was evidence that objectives and eligibility criteria were pre-specified:

Y=YES, PY=PROBABLY YES, PN=PROBABLY NO, N=NO, NI=NO INFORMATION

1.1 Did the review adhere to pre-defined objectives and eligibility criteria?	Y/PY/PN/N/NI
1.2 Were the eligibility criteria appropriate for the review question?	Y/PY/PN/N/NI
1.3 Were eligibility criteria unambiguous?	Y/PY/PN/N/NI
1.4 Were all restrictions in eligibility criteria based on study characteristics appropriate (e.g. date, sample size, study quality, outcomes measured)?	Y/PY/PN/N/NI
1.5 Were any restrictions in eligibility criteria based on sources of information appropriate (e.g. publication status or format, language, availability of data)?	Y/PY/PN/N/NI

Concerns regarding specification of study eligibility criteria

LOW/HIGH/UNCLEAR

Rationale for concern:



ROBIS töövahend: 2.1. uuringute ülevaatesse kaasamise kriteeriumid (2)

Koondhinnang

Low concern	Considerable effort has been made to clearly specify the review question and objectives, and to pre-specify and justify appropriate and detailed eligibility criteria that have been adhered to during the review
High concern	Studies that would have been important and relevant to answering the review question are likely to have been excluded from the review, either due to the lack of pre-specified objectives and eligibility criteria, or because inappropriate restrictions were imposed or studies that are not appropriate for addressing the review question have been included.
Unclear concern	Insufficient information is reported to make a judgement about risk of bias.



ROBIS töövahend: 2.2. uuringute tuvastamine ja valimine (1)

DOMAIN 2: IDENTIFICATION AND SELECTION OF STUDIES	
Describe methods of study identification and selection (e.g. number of reviewers involved):	
2.1 Did the search include an appropriate range of databases/electronic sources for published and unpublished reports?	Y/PY/PN/N/NI
2.2 Were methods additional to database searching used to identify relevant reports?	Y/PY/PN/N/NI
2.3 Were the terms and structure of the search strategy likely to retrieve as many eligible studies as possible?	Y/PY/PN/N/NI
2.4 Were restrictions based on date, publication format, or language appropriate?	Y/PY/PN/N/NI
2.5 Were efforts made to minimise error in selection of studies?	Y/PY/PN/N/NI
Concerns regarding methods used to identify and/or select studies	LOW/HIGH/UNCLEAR
Rationale for concern:	

Y=YES, PY=PROBABLY YES, PN=PROBABLY NO, N=NO, NI=NO INFORMATION



ROBIS töövahend: 2.2. uuringute tuvastamine ja valimine (2)

Koondhinnang

Low concern	Given the review question and eligibility criteria as assessed in Domain 1, a substantial effort has been made to identify as many relevant studies as possible through a variety of search methods using a sensitive and appropriate search strategy and steps were taken to minimise bias and errors when selecting studies for inclusion.
High concern	Some eligible studies are likely to be missing from the review.
Unclear concern	There is insufficient information reported to make a judgement on risk of bias.



ROBIS töövahend: 2.3. uuringutest andmete kogumine ja uuringute hindamine (1)

DOMAIN 3: DATA COLLECTION AND STUDY APPRAISAL	
Describe methods of data collection, what data were extracted from studies or collected through other means, how risk of bias was assessed (e.g. number of reviewers involved) and the tool used to assess risk of bias:	
3.1 Were efforts made to minimise error in data collection?	Y/PY/PN/N/NI
3.2 Were sufficient study characteristics available for both review authors and readers to be able to interpret the results?	Y/PY/PN/N/NI
3.3 Were all relevant study results collected for use in the synthesis?	Y/PY/PN/N/NI
3.4 Was risk of bias (or methodological quality) formally assessed using appropriate criteria?	Y/PY/PN/N/NI
3.5 Were efforts made to minimise error in risk of bias assessment?	Y/PY/PN/N/NI
Concerns regarding methods used to collect data and appraise studies	LOW/HIGH/UNCLEAR
Rationale for concern:	

Y=YES, PY=PROBABLY YES, PN=PROBABLY NO, N=NO, NI=NO INFORMATION



ROBIS töövahend: 2.3. uuringutest andmete kogumine ja uuringute hindamine (2)

Koondhinnang

Low concern	Given the studies included in the review as assessed in domain 2, risk of bias was assessed using appropriate criteria, data extraction and risk of bias assessment involved two reviewers, and relevant study characteristics and results were extracted.
High concern	Some bias may have been introduced through the data collection or risk of bias assessment processes.
Unclear concern	There is insufficient information reported to inform a judgement on risk of bias.



ROBIS töövahend: 2.4. andmete süntees ja ülevaate tulemused (1)

DOMAIN 4: SYNTHESIS AND FINDINGS	
Describe synthesis methods:	
4.1 Did the synthesis include all studies that it should?	Y/PY/PN/N/NI
4.2 Were all pre-defined analyses reported or departures explained?	Y/PY/PN/N/NI
4.3 Was the synthesis appropriate given the nature and similarity in the research questions, study designs and outcomes across included studies?	Y/PY/PN/N/NI
4.4 Was between-study variation (heterogeneity) minimal or addressed in the synthesis?	Y/PY/PN/N/NI
4.5 Were the findings robust, e.g. as demonstrated through funnel plot or sensitivity analyses?	Y/PY/PN/N/NI
4.6 Were biases in primary studies minimal or addressed in the synthesis?	Y/PY/PN/N/NI
Concerns regarding the synthesis and findings	LOW/HIGH/UNCLEAR
Rationale for concern:	

Y=YES, PY=PROBABLY YES, PN=PROBABLY NO, N=NO, NI=NO INFORMATION

ROBIS töövahend: 2.4. andmete süntees ja ülevaate tulemused (2)

Koondhinnang

Low concern	The synthesis is unlikely to produce biased results, because any limitations in the data were overcome, or the findings were so convincing that the limitations would have little impact.
High concern	The synthesis is likely to produce biased results, because (i) potential biases were ignored (within and/or across studies), (ii) important between-study variation was not accounted for; (iii) there were important inadequacies in the methodology; or (iv) findings are incompletely reported in a way that raises concerns.
Unclear concern	There is insufficient information reported to make a judgement on risk of bias.



ROBIS töövahend: hindamise 3. etapp

Süstemaatiliste ülevaadete kvaliteedi hindamise 3. etapis hinnatakse

- kokkuvõtlikult nihke tõenäosust süstemaatilises ülevaates
- kas süstemaatilise ülevaate tulemuste arutelus on käsitletud ülevaate (2. etapis kindlaks tehtud) piiranguid/puudusi

ROBIS töövahend: 3. koondhindamine (1)

Koondhinnang 2. etapi hinnangute 2.1.–2.4. põhjal

Domain	Concern	Rationale for concern
1. Concerns regarding specification of study eligibility criteria		
2. Concerns regarding methods used to identify and/or select studies		
3. Concerns regarding used to collect data and appraise studies		
4. Concerns regarding the synthesis and findings		



ROBIS töövahend: 3. koondhindamine (2)

RISK OF BIAS IN THE REVIEW	
Describe whether conclusions were supported by the evidence:	
A. Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	Y/PY/PN/N/NI
B. Was the relevance of identified studies to the review's research question appropriately considered?	Y/PY/PN/N/NI
C. Did the reviewers avoid emphasizing results on the basis of their statistical significance?	Y/PY/PN/N/NI
Risk of bias in the review	RISK: LOW/HIGH/UNCLEAR

Y=YES, PY=PROBABLY YES, PN=PROBABLY NO, N=NO, NI=NO INFORMATION

ROBIS töövahend: 3. koondhindamine (3)

Koondhinnang

Low risk of bias	The findings of the review are likely to be reliable. Phase 2 did not raise any concerns with the review process or concerns were appropriately considered in the review conclusions. The conclusions were supported by the evidence and included consideration of the relevance of included studies.
High risk of bias	One or more of the concerns raised during the Phase 2 assessment was not addressed in the review conclusions, the review conclusions were not supported by the evidence, or the conclusions did not consider the relevance of the included studies to the review question.
Unclear risk of bias	There is insufficient information reported to make a judgement on risk of bias.



Kõigi hindajate hinnangute koondamine

www.robis-tool.info

→ 'Additional resources'

→ 'ROBIS Excel spreadsheet (Office document, 21kB)'



3. Praktiline ülesanne



Näidis: süstemaatilise ülevaate kvaliteedi hindamine

Martin-Sancheza E, Torralba E, Díaz-Domíngueza E, Barrigab A, Martin JLR.
Efficacy of Acupuncture for the Treatment of Fibromyalgia: Systematic
Review and Meta-Analysis of Randomized Trials



Lisaks



ROBIS töövahend: ülevaatlik kokkuvõte hindamis(küsimust)est

		Phase 2			Phase 3	
		1. STUDY ELIGIBILITY CRITERIA	2. IDENTIFICATION AND SELECTION OF STUDIES	3. DATA COLLECTION AND STUDY APPRAISAL	4. SYNTHESIS AND FINDINGS	RISK OF BIAS IN THE REVIEW
Signalling questions	1.1 Did the review adhere to pre-defined objectives and eligibility criteria?	2.1 Did the search include an appropriate range of databases/electronic sources for published and unpublished reports?	3.1. Were efforts made to minimise error in data collection?	4.1. Did the synthesis include all studies that it should?	A. Did the interpretation of findings address all of the concerns identified in Domains 1 to 4?	
	1.2 Were the eligibility criteria appropriate for the review question?	2.2 Were methods additional to database searching used to identify relevant reports?	3.2. Were sufficient study characteristics available for both review authors and readers to be able to interpret the results?	4.2. Were all pre-defined analyses reported or departures explained?	B. Was the relevance of identified studies to the review's research question appropriately considered?	
	1.3 Were eligibility criteria unambiguous?	2.3 Were the terms and structure of the search strategy likely to retrieve as many eligible studies as possible?	3.3. Were all relevant study results collected for use in the synthesis?	4.3. Was the synthesis appropriate given the nature and similarity in the research questions, study designs and outcomes across included studies?	C. Did the reviewers avoid emphasizing results on the basis of their statistical significance?	
	1.4 Were all restrictions in eligibility criteria based on study characteristics appropriate?	2.4 Were restrictions based on date, publication format, or language appropriate?	3.4. Was risk of bias (or methodological quality) formally assessed using appropriate criteria?	4.4. Was between-study variation minimal or addressed in the synthesis?		
	1.5 Were any restrictions in eligibility criteria based on sources of information appropriate?	2.5 Were efforts made to minimise error in selection of studies?	3.5. Were efforts made to minimise error in risk of bias assessment?	4.5. Were the findings robust, e.g. as demonstrated through funnel plot or sensitivity analyses? 4.6. Were biases in primary studies minimal or addressed in the synthesis?		
Judgement	Concerns regarding specification of study eligibility criteria	Concerns regarding methods used to identify and/or select studies	Concerns regarding methods used to collect data and appraise studies	Concerns regarding the synthesis	Risk of bias in the review	