PROSPERO International prospective register of systematic reviews

Measurement properties of outcome measurement instruments for psoriatic arthritis: a systematic review

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Citation

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Review question(s)

What is the evidence on measurement properties of outcome measurement instruments evaluated for psoriatic arthritis?

Searches

Databases: we will search MEDLINE via PubMed from 1966, EMBASE via OVID from 1974, and PsycINFO via OVID from 1806, all to present.

The literature search will be limited to human subjects and papers in English.

The overall search terms are:

1) Target population (patients with PsA) AND 2) Measurement properties.

1) Target population: keywords/MESH Words/Index Terms describing the target population (PsA) will be searched as such and as free text. Other names or valid classification terms for the disease will be searched as free text. All these will be combined with 'OR'

2) Measurement properties: specific filters have been developed to improve the search of studies on measurement properties in MEDLINE and EMBASE (Terwee CB, Jansma EP, Riphagen II, de Vet HC. Development of a methodological PubMed search filter for finding studies on measurement properties of measurement instruments. Qual Life Res 2009 Oct;18(8):1115-23). We will use the highly sensitive MEDLINE filter and the suggested EMBASE filter, though minor changes have been added to further optimize the search.

Additional details of the search strategy can be found in the attached PDF document.

Link to search strategy

http://www.crd.york.ac.uk/PROSPEROFILES/32546_STRATEGY_20151121.pdf

Types of study to be included

The aim of the study should be to develop a measurement instrument or evaluate one or more measurement properties of an instrument.

Studies in which measurement instruments are used for measuring outcomes without studying the measurement properties are not considered eligible.

Studies of diagnostic instruments or screening tools will not be included.

Condition or domain being studied

Psoriatic arthritis (PsA) is an inflammatory musculoskeletal disease associated with psoriasis. It is a heterogeneous disease affecting many aspects of a patient's life. Currently, a great heterogeneity exists in the choice of instruments used to evaluate PsA. By conducting this systematic review we aim to critically appraise, compare and summarize the measurement properties of all outcome measurement instruments for PsA that have been validated at least to some extent.

Participants/ population

The study sample must represent the target population: psoriatic arthritis. If a study includes a mixed population (different diagnoses), PsA patients must constitute at least 50% of the study population or subgroup analyses on PsA specific data must be available.

Intervention(s), exposure(s)

No interventions applied.

Comparator(s)/ control

No control group.

Outcome(s)

Primary outcomes

Overall evidence for the measurement properties and appropriateness of PsA outcome measurement instruments.

1) Evaluation of the quality of included studies:

We will follow the COSMIN (COnsensus-based Standards for the selection of health Measurement INstruments) checklist that enables a critical evaluation of the methodological quality of studies investigating measurement properties of validity, reliability and responsiveness. (REF: Terwee CB, Mokkink LB, Knol DL, Ostelo RW, Bouter LM, de Vet HC.: "Rating the methodological quality in systematic reviews of studies on measurement properties: a scoring system for the COSMIN checklist." Qual Life Res 2012 May;21(4):651-7.)

2) The rating of the measurement property results:

This willl be based on the 'Quality Criteria for Measurement Properties' provided by Terwee et al: REF: (Terwee CB, Bot SD, de Boer MR, van der Windt DA, Knol DL, Dekker J, et al. "Quality criteria were proposed for measurement properties of health status questionnaires." J Clin Epidemiol 2007 Jan;60(1):34-42.)

3) Determining the level of evidence:

Guidelines proposed by the Cochrane Back Review Group will be followed: REF: (van TM, Furlan A, Bombardier C, Bouter L. "Updated method guidelines for systematic reviews in the cochrane collaboration back review group." Spine (Phila Pa 1976) 2003 Jun 15;28(12):1290-9)

Secondary outcomes

None.

Data extraction, (selection and coding)

A reviewer and a research librarian will perform the search and eliminate duplicates. Remaining references will be screened by titles and abstracts according to the eligibility criteria by two independent reviewers. Any doubt will be eliminated by discussion with members of the review team.

We will obtain full-text for all studies that may meet the eligibility criteria, and view the reference lists of relevant reviews. The two independent reviewers will then screen the full-text papers for eligibility, and any doubt will be resolved by discussion with a third reviewer. Every step of the selection process will be documented by a flow chart. Names of databases, database hosts, search dates, exact search terms, and possible limitations will be recorded. Reference manager 12 (Thomson Reuters, New York, USA) will be used to manage references.

Characteristics of identified instruments will be extracted and presented in tables. This information will include: Original target population (for whom was the instrument developed), aim of the instrument, methods (what is the assessment method) and construct of the instrument (which domains/disease aspects are being measured).

Characteristics of the study population and sampling procedures of the included studies will be obtained by the COSMIN Generalisability box (www.cosmin.nl) This will provide an overview of the studies homogeneity, which influences the decision of data pooling during the synthesis process.

From each study, data on methodological quality will be extracted and evaluated according to the COSMIN procedure. Data on the interpretability of the included instruments will be obtained by the COSMIN Interpretability box.

Risk of bias (quality) assessment
This will be done according to the COSMIN procedure.

Strategy for data synthesis
To determine the overall evidence for the measurement properties and appropriateness of an instrument, extracted data will be synthesised. This process combines the 1) results of the measurement properties of an instrument, 2) information on the consistency of findings (by homogenous studies) and 3) data on the methodological quality of the studies of interest. Where possible, a quantitative analysis (statistical pooling) will be performed. Otherwise, results will be summarized using best evidence synthesis (qualitative approach).

Analysis of subgroups or subsets
None planned.

Dissemination plans
Results of the systematic review will be dissiminated through publication in a peer review journal. Presentation of results will also take place at conferences and meetings.

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Anticipated or actual start date
06 January 2016

Anticipated completion date
06 April 2016

Funding sources/sponsors
The current study is a OMERACT work collaboration. The study is financially supported by the Parker Institute at Frederiksberg and Bispebjerg Hospital. The Parker Institute is sponsored by grants from The Oak Foundation. The Oak Foundation will have no role in study design, data collection, data synthesis, data interpretation, writing the report, or the decision to submit the manuscript for publication.

Study funding has also been received from the Danish Rheumatism Association and Department of Rheumatology, Herlev and Gentofte Hospital.

Conflicts of interest
The only potential conflict of interest is: Dr. Philip Helliwell has been involved in the development of composite outcome measures for psoriatic arthritis (PASDAS, GRACE, MDA and PSAID). Dr. Helliwell is not directly involved in performing the search or management of data during the SLR procedure.

Other registration details
Parker Institute, Frederiksberg and Bispebjerg Hospital.

Language
English

Country
England, Northern Ireland, Canada, Denmark, France, Netherlands, United States of America

Subject index terms status
Subject indexing assigned by CRD

Subject index terms
Arthritis, Psoriatic; Health Status Indicators; Humans; Outcome Assessment (Health Care)

Reference and/or URL for protocol
http://www.crd.york.ac.uk/PROSPEROFILES/32546_PROTOCOL_20151121.pdf

Stage of review
Ongoing

Date of registration in PROSPERO
11 January 2016

Date of publication of this revision
11 January 2016

Stage of review at time of this submission	Started	Completed
Preliminary searches	No	No
Piloting of the study selection process	No	No
Formal screening of search results against eligibility criteria	No	No
Data extraction	No	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No