

Sports Traumatology & Arthroscopy



GUIDELINE FOR LEVEL OF EVIDENCE

Therapeutic studies examine the effects of treatments on patient outcomes and potential complications.

Prognostic studies examine the natural history of diseases or disorders, focusing on how a patient's characteristics may influence the outcome of the disease.

Diagnostic studies evaluate the accuracy and utility of diagnostic tests or outcome measures.

Economic/decision analysis or modeling studies examine the costs and options available or may create or evaluate decision models.

Systematic reviews and meta-analyses are assigned a level of evidence corresponding to the lowest level of evidence from the studies they include.

A prospective study is identified as research that is formulated (including its power analysis) before data collection begins.

A retrospective study is recognized as research in which the question is defined after data collection has occurred, including studies in which general data may have been collected in a prospective manner.

Study type	Therapeutic studies	Prognostic studies	Diagnostic studies	Economic/decision analysis or modeling studies
Level I	Randomized controlled trials with adequate statistical power to detect differences (narrow confidence intervals) and follow up >80%. A systematic review of Level-I randomized controlled studies	High-quality prospective cohort study with >80% follow-up, and all patients enrolled at the same time point of the disease. A systematic review of Level-I studies	Testing previously developed diagnostic criteria in a consecutive series of patients and a universally applied "gold" standard Systematic review of Level-I studies	Reasonable costs and alternatives used in study with values obtained from many studies, study used multi-way sensitivity analysis Systematic review of Level-I studies
Level II	Lower quality randomized trials (follow up <80%, improper randomization techniques, no masking. Prospective comparative study. Systematic review of Level-II studies or Level-I studies with inconsistent results	Retrospective study Untreated controls from a randomized controlled trial Lower quality prospective cohort study (<80% follow-up, patients enrolled at different time points in disease) Systematic review of Level-II studies	Development of diagnostic criteria in a consecutive series of patients and a universally applied "gold" standard. A systematic review of Level-II studies	Reasonable costs and alternatives used in the study with values obtained from limited studies, the study used multiway sensitivity analysis. A systematic review of Level-II studies
Level III	Case-control study. Retrospective comparative study. A systematic review of Level-III studies	Case-control study. A systematic review of Level-III studies	Study of nonconsecutive patients and/or without a universally applied "gold" standard. A systematic review of Level-III studies	Analysis based on a limited section of alternatives and costs, or poor estimates of costs Systematic review of Level-III studies
Level IV	Case series with no comparison group. Retrospective case series	Case series with no comparison groups	Use of a poor reference Standard case-control study	No sensitivity analysis
Level V	Expert opinion	Expert opinion	Expert opinion	Expert opinion