

Levels of Evidence

All clinically related articles will require a Level-of-Evidence rating for classifying study quality. The Journal has five levels of evidence for each of four different study types; therapeutic, prognostic, diagnostic and cost effectiveness studies. Authors must classify the type of study and provide a level - of- evidence rating for all clinically oriented manuscripts. The level-of evidence rating will be reviewed by our editorial staff and their decision will be final.

The following tables and types of studies will assist the author in providing the appropriate level-of-evidence.

Type of Study	Treatment Study	Prognosis Study	Study of Diagnostic Test	Cost Effectiveness Study
LEVEL I	Randomized controlled trials with adequate statistical power to detect differences (narrow confidence intervals) and follow up >80%	High-quality prospective cohort study with > 80% follow-up, and all patients enrolled at same time point in disease	Testing previously developed diagnostic criteria in a consecutive series of patients and a universally applied "gold" standard	Reasonable costs and alternatives used in study with values obtained from many studies, study used multi-way sensitivity analysis
LEVEL II	Randomized trials (follow up <80%, Improper Randomization Techniques) Prospective comparative study	Prospective cohort study (<80% follow-up, patients enrolled at different time points in disease) Retrospective Study Untreated controls from a randomized clinical trial	Development of diagnostic criteria in a consecutive series of patients and a universally applied "gold standard"	Reasonable costs and alternatives used in study with values obtained from limited studies, study uses multi-way sensitivity analysis
LEVEL III	Case-control study Retrospective comparative study	Case-control study	Study of nonconsecutive patients and/or without a universally applied "gold" standard	Analyses based on a limited section of alternatives and costs, or poor estimates of costs
LEVEL IV	Case series with no comparison group	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

Type of Study: **Treatment Studies** investigate the results of treatment on patient outcomes and complications. **Prognosis Studies** investigate the natural history of a disease or disorder, and evaluate the effect of a patient characteristic on the outcome of the disease. **Diagnostic Studies** evaluate the effectiveness of a diagnostic test or outcome assessment. **Economic/Decision Analysis or Modeling Studies** explore costs and alternatives or may either develop or assess the effectiveness of decision models. **Systematic Reviews and Meta-Analyses** are assigned a Level of Evidence equivalent to the lowest level of evidence used from the manuscripts analyzed. **Prospective Study** is a study in which the research question was developed, (and the statistical analysis for determining power) were developed before data was collected. **Retrospective Study** is a study in which the research question was determined after the data was collected (even for studies where the authors collected general data prospectively).