

APPENDIX 2. GRADING OF EVIDENCE

SIGN criteria for classifying studies

Score	Design
1++	High quality meta-analyses, systematic review of RCTs, or RCTs with a very low risk of bias
1+	Well conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias
1-	Meta-analyses, systematic reviews of RCTs or RCTs with a high risk of bias
2++	High quality systematic reviews of case-control or cohort studies. High quality case-control or cohort studies with a very low risk of confounding, bias or chance and a high probability that the relationship is causal
2+	Well conducted case control or cohort studies with a low risk of confounding, bias or chance and a moderate probability that the relationship is causal
2-	Case control or cohort studies with a high risk of confounding, bias or chance and a significant risk that the relationship is not causal.
3	Non-analytic studies
4	Expert opinion

Cochrane Musculoskeletal Group grading of levels of evidence¹

Platinum level

The Platinum ranking is given to evidence that meets the following criteria as reported

is a published systematic review that has at least **two** individual controlled trials each satisfying the following:

- Sample sizes of at least 50 per group. If they do not find a statistically significant difference, they are adequately powered for a 20% relative difference in the relevant outcome.
- Blinding of patients and assessors for outcomes
- Handling of withdrawals >80% follow up (imputations based on methods such as Last Observation Carried Forward (LOCF) acceptable
- Concealment of treatment allocation.

Gold level

The Gold ranking is given to evidence if at least **one** randomised controlled trial meets all of the following criteria as reported

- Sample sizes of at least 50 per group. If they do not find a statistically significant difference, they are adequately powered for a 20% relative difference in the relevant outcome.
- Blinding of patients and assessors for outcomes
- Handling of withdrawals >80% follow up (imputations based on methods such as Last Observation Carried Forward (LOCF) acceptable
- Concealment of treatment allocation.

¹ <http://www.cochranemsk.org/review/writing/>

Silver level

The Silver ranking is given to evidence if a systematic review or randomised trial that does not meet the above criteria. Silver ranking would also include evidence from at least one study of nonrandomised cohorts who did and did not receive the therapy or evidence from at least one casecontrol study. A randomised trial with a “head-to-head” comparison of agents is considered Silver level ranking unless a reference is provided to a comparison of one of the agents to placebo showing at least a 20% relative difference.

Bronze level

The bronze ranking is given to evidence if there is at least one high quality case series without controls (including simple before/after studies in which the patient acts as their own control) or if it is derived from expert opinion based on clinical experience without reference to any of the foregoing (for example, argument from physiology, bench research or first principles).