

Grading a Body of Evidence to answer a Clinical Question*

| Grade | Method | | | |
|----------------------|--|--|--|-------------------------|
| High | Sufficient number of high quality studies with consistent* results. | | | |
| | Step 1 <i>(see worksheet to summarize the body of evidence)</i> | NUMBER OF STUDIES | QUALITY OF STUDIES* | CONSISTENCY OF RESULTS* |
| | | 1 | 1a | NA |
| | | 2+ | 1a or 2a | Yes |
| | | 5+ | 1a, 2a, or 3a | Yes |
| | 5+ | 1a, 1b, 2a, or 2b | Yes | |
| | Step 2 <i>(if the studies didn't fit neatly into a box in step 1)</i> | <ul style="list-style-type: none"> ▪ <u>multiple</u> studies, unless large effect and very clinically important ▪ <u>strong designs</u> for answering the question addressed ▪ <u>clinically important and consistent</u> results with minor exceptions at most ▪ <u>free of any significant doubts about validity</u> (generalizability, bias, design flaws) ▪ <u>adequate statistical power</u> (including studies showing no difference) | | |
| | Confirmation Step | Further research is unlikely to change our confidence in the answer to the clinical question. | | |
| Moderate | Multiple studies of lesser quality or with inconsistent results, or a single well-done study. | | | |
| | Step 1 <i>(see worksheet to summarize the body of evidence)</i> | NUMBER OF STUDIES | QUALITY OF STUDIES* | CONSISTENCY OF RESULTS* |
| | | 1 | 2a | NA |
| | | 3+ | 1, 2, 3; a or b | Yes |
| | | 5+ | 1, 2, 3, 4; a or b | Yes |
| | Step 2 <i>(if the studies didn't fit neatly into a box in step 1)</i> | <p><i>Either</i></p> <ul style="list-style-type: none"> ▪ <u>multiple</u> studies ▪ <u>strong designs</u> for answering the question addressed ▪ <u>some uncertainty</u> due to either <ul style="list-style-type: none"> ▪ <u>validity</u> threats (generalizability, bias, design flaws or adequacy of statistical power), or ▪ <u>inconsistency</u> <p><i>Or</i></p> <ul style="list-style-type: none"> ▪ <u>multiple</u> studies ▪ <u>weaker designs</u> for answering the question addressed ▪ <u>consistent</u> results with minor exceptions at most | | |
| | Confirmation Step | Further research is likely to have an important impact on our confidence in the precision of the answer to the clinical question, and may even change the answer itself. | | |
| Low | Local opinion, case reports, case studies, and general reviews. | | | |
| | Step 1 <i>(see worksheet to summarize the body of evidence)</i> | NUMBER OF STUDIES | QUALITY OF STUDIES | CONSISTENCY OF OPINION |
| | | 1+ or local opinion | 5 | Clear local consensus |
| | Step 2 <i>(if the studies didn't fit neatly into a box in step 1)</i> | <ul style="list-style-type: none"> ▪ <u>local consensus</u> is clear ▪ <u>health professional opinion</u> is the only relevant published information | | |
| | Confirmation Step | There is local and/or published consensus, but no research, to answer the clinical question. Further research is very likely to have an important impact on the answer. | | |
| Grade Not Assignable | Insufficient design or execution, too few studies, and inconsistent results | | | |
| | Step 1 | NUMBER OF STUDIES | QUALITY OF STUDIES* | CONSISTENCY OF RESULTS* |
| | | 0+ | 3b, 4b | No |
| | | Step 2 <i>(if the studies didn't fit neatly into a box in step 1)</i> | <ul style="list-style-type: none"> ▪ studies have not been done, or ▪ published studies are seriously flawed and/or ▪ published studies give inconsistent results | |
| | Confirmation Step | There is insufficient evidence and lack of consensus to answer the clinical question. | | |

*Note: When there is both high and low quality evidence and the results are inconsistent:

- Disregard lower quality evidence if the lower quality evidence is inconsistent with all higher quality evidence.
- Avoid disregarding lower quality evidence when inconsistency is at multiple quality levels, because bias could be introduced when determining which evidence to disregard.

Some of the concepts for this development are based on: **Atkins et al:** Grading quality of evidence and strength of recommendations. *BMJ*, 328(7454): 1490, 2004; **Briss et al:** Developing an evidence-based Guide to Community Preventive Services--methods. The Task Force on Community Preventive Services. *Am J Prev Med*, 18(1 Suppl): 35-43, 2000; and **Greer et al:** A practical approach to evidence grading. *Jt Comm J Qual Improv*, 26(12): 700-12, 2000.