**Tool for the development of Guidelines using the GRADE methodology**

1. Define the questions according to the PICO model (Patient-Intervention-Comparison - Outcome)

2. Make a systematic review of the literature

   ![Health Care Question (PICO) Systematic review diagram]

   - Generate an estimate of effect for each outcome

3. Grade the quality of the evidences

   ![Rate the quality of evidence for each outcome, across studies diagram]

   - Rating is modified downward:
     - Study limitations
     - Imprecision
     - Inconsistency of results
     - Indirectness of evidence
     - Publication bias likely
   
   - Rating is modified upward:
     - Large magnitude of effect
     - Dose response
     - Confounders likely minimize the effect

   Final rating of quality for each outcome: high, moderate, low, or very low

4. Formulate recommendation:
   
   a. **STRONG** recommendation pro or against. Use the verb “to recommend”.

b. **WEAK/CONDITIONAL** recommendation pro or against. Use the verb “to suggest”.

For a guideline panel making recommendations to offer a strong recommendation they have to be **certain** about the various factors that influence the strength of a recommendation. The panel also should have the relevant information at hand that supports a clear balance towards either the desirable effects of an intervention (to recommend an action) or undesirable effects (to recommend against an action).

When a guideline panel is **uncertain** whether the balance is clear or when the relevant information about the various factors that influence the strength of a recommendation is not available, a guideline panel should be more cautious and in most instances it would opt to make a weak recommendation.

### Table: Suggested representations of quality of evidence and strength of recommendations

<table>
<thead>
<tr>
<th>Quality of Evidence</th>
<th>Symbol</th>
<th>Letter (varies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>⨁ ⨁ ⨁ ⨁</td>
<td>A</td>
</tr>
<tr>
<td>Moderate</td>
<td>⨁ ⨁ ⨁ ◯</td>
<td>B</td>
</tr>
<tr>
<td>Low</td>
<td>⨁ ⨁ ◯◯</td>
<td>C</td>
</tr>
<tr>
<td>Very low</td>
<td>⨁ ◯◯◯</td>
<td>D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strength of Recommendation</th>
<th>Symbol</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong for an intervention</td>
<td>↑↑</td>
<td>1</td>
</tr>
<tr>
<td>Weak for an intervention</td>
<td>↑?</td>
<td>2</td>
</tr>
<tr>
<td>Weak against an intervention</td>
<td>↓?</td>
<td>2</td>
</tr>
<tr>
<td>Strong against an intervention</td>
<td>↓↓</td>
<td>1</td>
</tr>
</tbody>
</table>

### References

GRADE handbook
[https://gdt.gradepro.org/app/handbook/handbook.html#h.gwd531rylwaj](https://gdt.gradepro.org/app/handbook/handbook.html#h.gwd531rylwaj)

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