

Making Recommendations with GRADE

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Objective - deliverables

1. How to go from evidence to recommendations
2. The scoop on discordant recommendations.
3. The intersect between GRADE recommendations and policy.

Formulate question

Select outcomes

Rate importance

Outcomes across studies

Create evidence profile with GRADEpro

Rate quality of evidence for each outcome

RCT start high, obs. data start low

P
I
C
O

- Outcome Critical
- Outcome Critical
- Outcome Important
- Outcome Not important



Study	Outcome	Daily assessment				Summary of findings		Reference
		Confidence	Importance	Indirectness	Imprecision	Overall	Quality	
1. Study 1 (RCT)	Outcome 1	High	High	Low	Low	High	High	[1]
		High	High	Low	Low	High	High	
2. Study 2 (RCT)	Outcome 1	High	High	Low	Low	High	High	[2]
		High	High	Low	Low	High	High	
3. Study 3 (Observational)	Outcome 1	Low	Low	High	High	Low	Low	[3]
		Low	Low	High	High	Low	Low	
4. Study 4 (Observational)	Outcome 1	Very low	Very low	High	High	Very low	Very low	[4]
		Very low	Very low	High	High	Very low	Very low	

High
Moderate
Low
Very low

Grade down
Grade up

- 1. Risk of bias
- 2. Inconsistency
- 3. Indirectness
- 4. Imprecision
- 5. Publication bias
- 1. Large effect
- 2. Dose response
- 3. Confounders

Summary of findings & estimate of effect for each outcome

Systematic review

Guideline development

Formulate recommendations:

- For or against (direction)
- Strong or weak (strength)

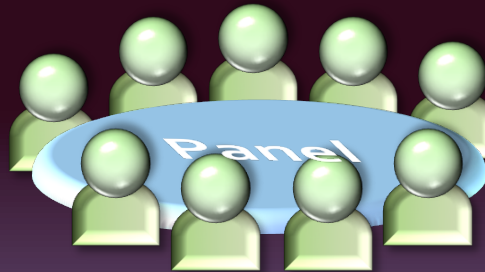
By considering:

- Quality of evidence
- Balance benefits/harms
- Values and preferences



Revise if necessary by considering:

- Resource use (cost)



Rate overall quality of evidence across outcomes based on lowest quality of critical outcomes

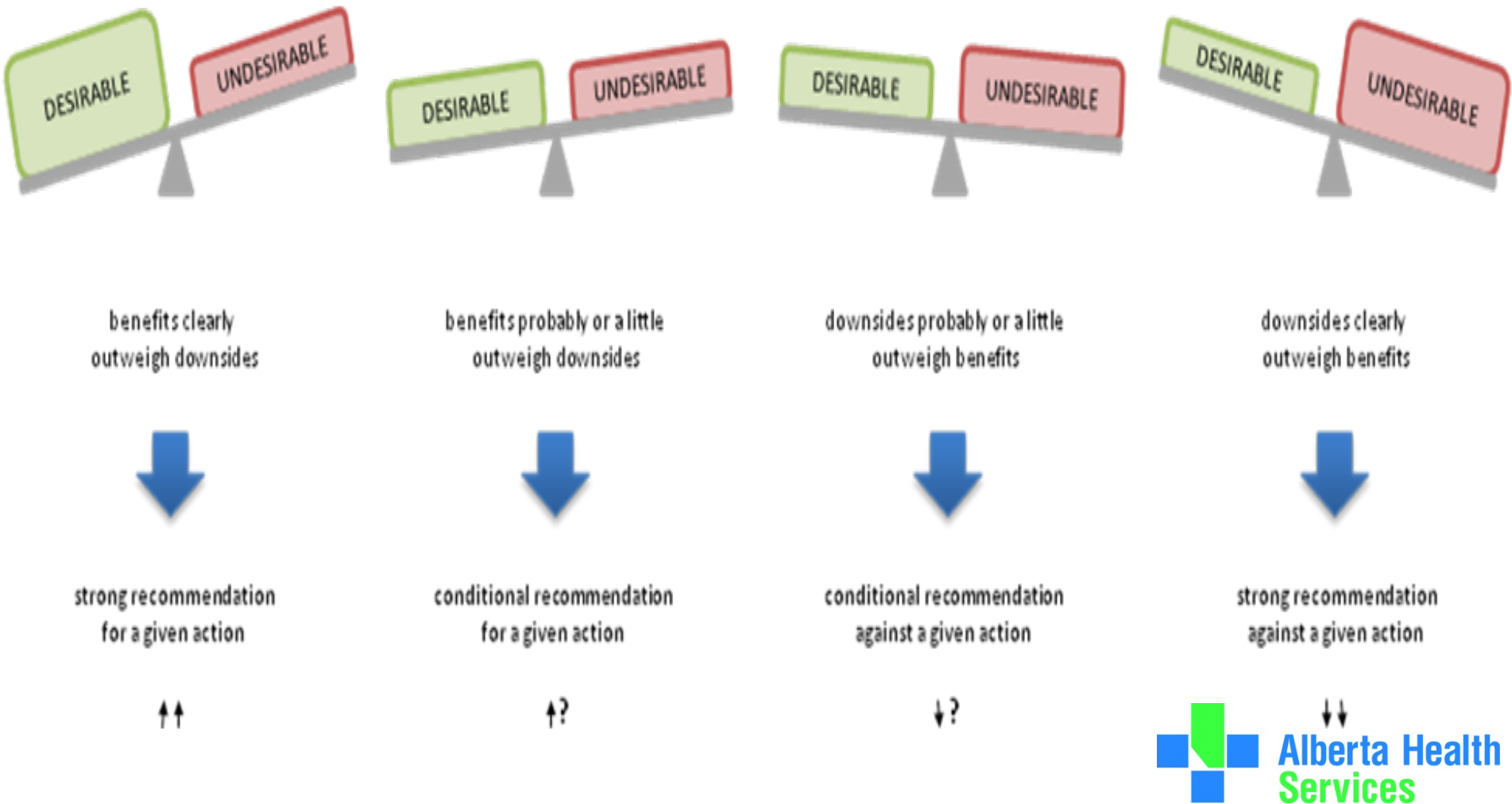


- "We recommend using..."
- "We suggest using..."
- "We recommend against using..."
- "We suggest against using..."

- Complex issues versus
- Clarity of guidance
- Recommendations should be:
- Clear, non-ambiguous
- Actionable
- Rationale provided
- More than just the evidence



Moving from Evidence to Recommendations



Language captures strength and direction

- We recommend in favor of “I” over “C”
- We suggest in favor of “I” over “C”
- We suggest against “I” over “C”
- We recommend against “I” over “C”

Mapping the Road from Evidence to Recommendations

- Recommendations tab in guideline development tool
- Questions to consider using research evidence
- Explicit and transparent reporting on judgements and rationale for your recommendations

Categories

- Problem
- Evidence-based benefits and harms of options
- Resource
- Equity
- Acceptability
- Feasibility

Make Recommendation

- Balance of consequences
- Justification
- Subgroup considerations
- Implementation
- Monitoring and Evaluation
- Research possibilities

Justification

- In making this recommendation we place a higher value on survival to discharge than ROSC.
- In making this recommendation we place a higher value on judicious use of resources than a benefit in surrogate outcomes (oxygenation).
- In making this recommendation we place a higher value on avoiding bleeding than a preserved ejection fraction.

- For people at high risk of OHCA (P), does focused training of likely rescuers (eg, family or caregivers) (I) compared with no such targeting (C), change survival with favorable neurologic outcome at discharge, ROSC, bystander CPR performance, number of people trained in CPR, willingness to provide CPR (O)?

Discordant Recommendations

- Treatment Recommendations
- We recommend the use of BLS training interventions that focus on high-risk populations, based on the willingness to be trained and the fact that there is low harm and high potential benefit (strong recommendation, low-quality evidence).

- Values, Preferences, and Task Force Insights
- In making this recommendation, we place higher value on the potential benefits of patients receiving CPR by a family member or caregiver, and the willingness of this group to be trained and to use skills if required. We place lesser value on associated costs and the potential that skills may not be retained without ongoing CPR training. Because cardiac arrest is life threatening, the likelihood of benefit is high relative to possible harm.

No Recommendation

- There are 3 reasons for which those making recommendations may be reluctant to make a recommendation for or against a particular management strategy, and also conclude that a recommendation to use the intervention only in research is not appropriate.

- The confidence in effect estimates is so low that the panels feel a recommendation is too speculative (see the US Preventative Services Task Force discussion on the topic [Petitti 2009; PMID: 19189910]).
- Irrespective of the confidence in effect estimates, the trade-offs are so closely balanced, and the values and preferences and resource implications not known or too variable, that the panel has great difficulty deciding on the direction of a recommendation.
- Two management options have very different undesirable consequences, and individual patients' reactions to these consequences are likely to be so different that it makes little sense to think about typical values and preferences.

Conclusions

- When evidence is low or very low quality weak recommendations prevail
- The path from evidence to recommendations should be structured and rationale explicit
- Discordant recommendations possible but require clear justification.

Thank You