



# Clinical practice guidelines: how do they help clinicians and patients make important decisions about health?

Juliana Carvalho Ferreira<sup>1,2</sup>, Cecilia Maria Patino<sup>1,3</sup>

## PRACTICAL SCENARIO

In 2017, a clinical practice guideline (CPG) about the use of mechanical ventilation in adult patients with acute respiratory distress syndrome (ARDS), sponsored by three medical societies, recommended the use of lower tidal volumes (4-8 mL/kg of predicted body weight) and lower inspiratory pressures (plateau pressure < 30 cmH<sub>2</sub>O). The CPG classified this recommendation as “strong” and with “moderate confidence in effect estimates”.<sup>(1)</sup>

## INTRODUCTION

When clinicians and patients make health-related decisions, they should consider the potential benefits and harms of diagnostic procedures and interventions, as well as patient values and preferences. When the benefits outweigh the harms, the diagnostic procedure or intervention should be recommended, or otherwise, avoided. However, in times of information abundance, how can we facilitate this decision-making process for both clinicians and patients? CPGs offer recommendations about specific clinical questions and provide a summary of the evidence—and its quality—to help the decision making of clinicians and patients.

## HOW ARE RECOMMENDATIONS MADE?

In the past, recommendations were commonly based on expert opinion, but this process was often based on low quality evidence and thus may not have represented the best choice for the patient. Since then, formal systems have been created, such as the Grading of Recommendations, Assessment, Development and Evaluations (GRADE) system, which uses rigorous methodological processes.<sup>(2)</sup> As an example, the Brazilian Thoracic Association recently adopted GRADE as a formal approach to develop Brazilian CPGs, which will be published in the JBP.

GRADE offers a systematic approach to develop CPGs, including the formulation of clinical questions aligned with patient-centered outcomes, systematic literature review, and a structured appraisal process to evaluate the quality of the evidence, which ultimately informs the recommendations. Randomized controlled trials usually provide the highest quality of evidence, but five limitations can impact on study quality: study limitations (biases), imprecision, inconsistency across studies, indirectness of evidence, and publication bias.

The process of writing CPG recommendations is rigorous. A CPG should be clearly written to avoid ambiguity and use standard approaches. The strength of a recommendation reflects the extent to which one can be confident that the desirable effects of an intervention outweigh undesirable effects. Chart 1 shows what a strong or conditional recommendation means for clinicians, patients, and policy makers. Four key factors determine the strength of a recommendation: balance between the desirable and undesirable consequences; quality of the evidence; variability in values and preferences; and costs.

In our example, the CPG makes a strong recommendation for using low tidal volumes and inspiratory pressures for patients with ARDS, because the evidence suggests that the benefits outweigh the harms. The recommendation includes a statement about the quality of the evidence, considered moderate, implying that, although the panel recommends the intervention, they acknowledge the fact that the quality of evidence is not high and that further research is likely to have an impact on our confidence in the estimate of the effect of the intervention.

Finally, it is important to remember that recommendations from CPGs are only a guide for decision making and should always be put into context, considering patient preferences, values, and perspectives, as well as local available resources.

**Chart 1.** Examples of recommendations that inform patients, clinicians, and policy makers for the decision making.

|               | Strong recommendation   | Conditional recommendation   |
|---------------|---|--|
| Patients      | Most informed patients would choose the recommended management, and only a minority would not accept it | Most informed patients would choose the recommended management, but many would not         |
| Clinicians    | Most patients should receive the recommended course of action   | Clinicians must ensure that patients' care is in keeping with their values and preferences |
| Policy makers | The recommendation can be adopted as a policy in most situations  | There is a need for substantial debate and stakeholder involvement                         |

## REFERENCES

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1. Methods in Epidemiologic, Clinical, and Operations Research—MECOR-program, American Thoracic Society/Asociación Latinoamericana del Tórax, Montevideo, Uruguay.

2. Divisão de Pneumologia, Instituto do Coração, Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo (SP) Brasil.

3. Department of Preventive Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA, USA.

a. <http://orcid.org/0000-0001-6548-1384>; b. <http://orcid.org/0000-0001-5742-2157>