

When no guideline recommendation is the best recommendation

The core of clinical practice guidelines is the recommendations. The ideal situation for clinical practice guidelines is when there is an unequivocal body of evidence about the benefits and harms of different treatment options, and related costs and resources.¹ Making guidelines and recommending the best treatments in these cases are straightforward.

Challenges arise when there is no high-quality evidence. For many specialties in medicine, this is the rule rather than the exception. To get around the pressure of providing recommendations, on one hand, and signalling uncertainty due to insufficient data or conflicting evidence, on the other hand, guideline makers often use quality of evidence scoring tools such as Grading of Recommendations Assessment, Development, and Evaluation (GRADE).¹ GRADE categorises confidence or certainty of the benefits and harms of interventions (as high, moderate, low, or very low guality of evidence), and strengths of recommendations (as strong or weak). For several reasons, the current practice to provide recommendations for or against a specific treatment or test for all or most assigned clinical questions irrespective of the underlying evidence can be counterproductive, or even harmful for patients.

First, weak recommendations are often not more than suggestions that may be followed, or not. Unfortunately, many users have neither the time nor the knowledge to appreciate this crucial detail. Whether the evidence



is strong and informed by large randomised trials, or weak and maybe largely informed by the opinion of the experts in the panel, is not clearly comprehended. An increasing number of clinicians who have grown up in the current era of modern clinical practice guidelines and recommendations may assume that guideline recommendations are rules that should not be deviated from.² In some countries, such as the USA, the fear of legal litigation in case of non-compliance with any recommendation can also have a role in overachieving adherence to recommendations.

Second, guideline panels can give recommendations on false grounds. Alexandera and colleagues' study³ uncovered considerable discordance in WHO public health guidelines related to the application of the strength of recommendations and the appreciation of evidence. Strong recommendations were applied when there were insufficient reasons to do so, and the grading of recommendations as weak or strong was inconsistent. Expectations by the soliciting organisation and by patients, and leading panel member's personal preferences and beliefs, coupled with a strong desire to provide recommendations for all topics, could be some of the reasons for this discordance.⁴ After all, the opinion leaders on the panels are expected to provide a recommendation. Who else would, if not the experts?

Third, the overuse of strong recommendations by guideline panels together with over-adherence to weak recommendations by guideline users has consequences for future knowledge generation. Clinicians and guideline users may believe that research that is not in accordance with guideline recommendations is unethical and should not be done. Indeed, it has been uncovered that some WHO guideline panelists were uncomfortable issuing recommendations that challenged established clinical practices, irrespective of the evidence for them.⁴

An example is surveillance of patients with colorectal polyps. Multiple clinical practice guidelines exist in this area, and although all emphasise that the evidence for their recommendation (eg, 3-year colonoscopy intervals instead of 5-year intervals) is arbitrary because strong evidence for a particular interval is lacking, they all recommend specific surveillance intervals.⁵⁷ We and

others have launched clinical trials^{8,9} to investigate if longer intervals would provide a better benefit-harm ratio. Some clinicians we asked to participate have questioned the ethical basis of the trials because "they are not according to guidelines". Obviously, the overarching aim of research is to generate new knowledge, and for this interventions in groundbreaking trials will necessarily need to divert from guideline recommendations. This is the very nature of research and innovation.

Every clinician knows that uncertainty is part of clinical medicine.¹⁰ When choosing the best treatment for each patient, clinicians aim to maximise benefit and minimise harm. The ability to choose correctly arises from a solid education in clinical medicine, an updated knowledge of the available treatment options, and an understanding of each patient's preferences. Clinical guidelines have a place in this landscape, but only in context with other determinants for clinical decision making.² To be able to generate new knowledge, research has to challenge guideline recommendations and needs to deviate from them. This is not a problem but a necessity, and should be clearly conveyed by guideline makers.

In areas of uncertainty, guidelines should describe the available choices and, most importantly, highlight the topic as priority for further research. "No recommendation" statements should be accompanied by specific descriptions of the evidence gaps and should provide guidance about the nature and design of future research to fill this gap. Guideline panels are well suited to propose specific research that needs to be done to be able to give a future guideline update.¹¹

The current default of making recommendations for each clinical question in every set of guidelines might be counterproductive and hinder new knowledge and thus clinical practice innovation. Fewer recommendations, by abandoning those with the weakest evidence, would be a step in the right direction. If there is little or no evidence, guideline makers should refrain from recommending one or another option. Clinical guideline panels should have the courage to make statements of no recommendation if the evidence base is weak. Such a recommendation could actually be the best guidance and give impetus to important research.

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- Guyatt G, Oxman AD, Akl EA, et al. GRADE guidelines: 1. Introduction-GRADE evidence profiles and summary of findings tables. J Clin Epidemiol 2011; 64: 383e94.
- 2 Wasfy JH, Armstrong K, Milford CE, Sundt TM. Doctors should share their uncertainty with patients and make decisions together. Int J Cardiol 2015: 187: 109–10.
- 3 Alexandera PE, Britob JP, Neumann I, et al. World Health Organization strong recommendations based on low-quality evidence (study quality) are frequent and often inconsistent with GRADE guidance. J Clin Epidemiol 2016: 72: 98–110.
- 4 Alexandera PE, Gionfriddo MR, Li SA, et al. A number of factors explain why WHO guideline developers make strong recommendations inconsistent with GRADE guidance. J Clin Epidemiol 2016; 70: 111e122.
- 5 Atkin WS, Valori R, Kuipers EJ, et al. European guidelines for quality assurance in colorectal cancer screening and diagnosis. First edition—colonoscopic surveillance following adenoma removal. *Endoscopy* 2012; 44: E151–63.
- 6 Lieberman DA, Rex DK, Winawer SJ, et al. Guidelines for colonoscopy surveillance after screening and polypectomy: a consensus update by the US Multi-Society Task Force on Colorectal Cancer. Gastroenterology 2012; 143: 844–57.
- 7 Hassan C, Quintero E, Dumonceau JM, et al. Post-polypectomy colonoscopy surveillance: European Society of Gastrointestinal Endoscopy (ESGE) Guideline. Endoscopy 2013; 45: 842–51.
- 8 Jover R, Bretthauer M, Dekker E, et al. Rationale and design of the European Polyp Surveillance (EPoS) trials. *Endoscopy* 2016; **48**: 571–78.
- 9 Click B, Pinsky PF, Hickey T, Doroudi M, Schoen RE. Association of Colonoscopy Adenoma findings with long-term colorectal cancer incidence. JAMA 2018; **319**: 2021–31.
- 10 Wasfy JH, Armstrong K, Milford CE, Sundt TM. Bicuspid aortic disease and decision making under uncertainty—the limitations of clinical guidelines. Int J Cardiol 2015; 181: 169–71.
- 11 Sharma T, Choudhury M, Rejón-Parrilla JC, Jonsson P, Garner S. Using HTA and guideline development as a tool for research priority setting the NICE way: reducing research waste by identifying the right research to fund. *BMJ Open* 2018; 8: e019777.

Strengthening oral health for universal health coverage

The Global Burden of Disease Study 2016 estimated that oral diseases affected half of the world's population.¹ Nonetheless, oral health is a neglected area of global health that could make a contribution to achieving universal health coverage (UHC).² UHC can help frame policy dialogue to address weak and fragmented primary oral health services, and address substantial out-of-pocket expenses associated with oral health care in many countries, which in turn would help to achieve UHC.



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