

## ESC Guidelines revisited

Daniel Caldeira *et al.* in this issue of the journal publish an interesting correspondence article describing the characteristics of ESC guidelines in terms of the overall distribution of levels of evidence (LoE) as well as that of classes of recommendations (CORs).<sup>1</sup>

It is quite unusual to dedicate an Editorial to a correspondence article (i.e. to a Letter to the Editor). However, the article presented by Caldeira *et al.* deserves this. There are three reasons: first their work is important in that it addresses the question of the scientific value of guidelines; secondly they look into the development of LoE and CORs along a time axis; and thirdly, despite a fair summary, they do not end up with a conclusion.

As to the scientific value of the guidelines, the ESC made an important cornerstone with using both LoE and CORs. With this duality, both scientific evidence and clinical usefulness were the aims. Indeed, the title of guidelines usually includes the wording 'Clinical Practice'.

Before judging the guidelines' LoE and CORs, we should look in detail at the data presented. The authors specifically selected 23 current guidelines 18 of which had a previous version; thus 41 guidelines were evaluated. In those, there were 5172 recommendations, 48% of which were Class I, and 29, 15, and 8% were Class IIa, IIb, or III recommendations,

respectively. Amongst the different topics, there was a wide variation of COR distributions, e.g. diabetes guidelines had one of the highest level I rates, and, for example, grown up congenital heart disease (GUCH) guidelines had the lowest proportion of level I. Similarly, it is not unexpected that different fields have different levels of evidence. If one considers, for example, dyslipidaemias vs. infective endocarditis, it becomes clear that the former can rely on many large randomized clinical trials which, by the nature of the disease, are nearly impossible for the latter.

When comparing previous vs. current guidelines, the authors found an increased proportion of level C in the current ones—a surprising observation.

From the view of a PhD student, it is very important to have guidelines for planning a thesis and also for clinical reasons. Our group at the Private University of the Principality of Liechtenstein has also scrutinized recent guidelines and our as yet unpublished investigation mainly supports the findings of Caldeira *et al.* More detailed and specified analysis will be interesting, e.g. into diagnostic and therapeutic recommendations which may differ significantly in terms of the data available.

Can we end up with a conclusion? The high level of C class is at first sight not desirable if one wishes for clear evidence for the clinical procedures. However, it is very helpful if a Task Force of outstanding experts convenes on a

conclusion, even with lower evidence levels. Perhaps it should be reconsidered whether a low LoE so often should lead to a COR of I. Moreover, it may be discussed whether the level C evidence-based recommendations should be reduced, also in order to make guidelines shorter.

All in all we have learned some unexpected lessons from the article by Caldeira *et al.*

**Conflict of interest:** none declared.

### Reference

1. Caldeira D, Marques A, Almeida J, Rodrigues T, Alves M, David C, Gonalves N, Costa J, Ferreira JJ, Pinto FJ. Recommendations and levels of evidence in the guidelines of the European Society of Cardiology: current scenario and time trends. *Eur Heart J Cardiovasc Pharmacother* 2020;**6**:122–124.

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