Letters to the Editor

The AGREE II Instrument Is Helpful for Creation of National Academy of Clinical Biochemistry Laboratory Medicine Practice Guidelines

To the Editor:

We commend Don-Wauchope et al., who assessed 11 National Academy of Clinical Biochemistry (NACB) laboratory medicine practice guidelines (LMPGs) with the AGREE II (Appraisal of Guidelines for Research and Evaluation II) instrument (1), and we thank Bossuyt for his accompanying editorial (2). The results of this study are helpful but are not unexpected. These LMPGs were developed over several years. The 8 nonarchived LMPGs published in the past 5 years used 4 different systems for grading and weighting practice recommendations. One system that several LMPG committees have used is a modified US Preventive Services Task Force (USPSTF) system. A second system used for 2 LMPGs was that of the American College of Cardiology and the American Heart Association. At times, NACB LMPG committees have used clinical societies’ systems when these groups are primary collaborators in LMPG development, as well as significant end users of the LMPG. A third system created by the authors of 3 LMPGs focused on tumor marker tests. This unique system was developed by LMPG members who felt that considerable heterogeneity in clinical oncology practice guidelines failed to indicate a preference in any clinical society’s system. Finally, authors of the most recent diabetes LMPG created a unique system based on various extant models, including the USPSTF system and the GRADE instrument, to develop a methodology that would be more applicable to selecting laboratory tests in clinical practice. Although all approaches were designed to be transparent and fair, the lack of a systematic approach in the methodology systems used is one of several potential reasons for the disparity in the LMPG scores reported by Don-Wauchope et al.

In fact, the opportunity to become more standardized and systematic in the creation of LMPGs had been recognized by NACB leaders in recent years as more information became available on best practices in guideline development. Important resources include a recent report from the Institute of Medicine on developing guidelines (3) and the potential use of AGREE II. With the use of AGREE II reported by Don-Wauchope et al., overall scores for NACB LMPGs ranged from 8% to 92%, and 6 of the 11 LMPGs scored <50% overall. Only the most recently developed LMPG for diagnosis/management of diabetes received an overall score (92%) that most would consider acceptable (4). Bossuyt correctly identified the reason the diabetes LMPG scored so well. It was the only LMPG that was designed with the aid of AGREE II. The results of the independent assessment by Don-Wauchope et al. elucidate several areas for improvement in the development of LMPGs. We agree with the authors that our LMPGs must better address these fundamentally important process areas to be more effective and have a better impact.

The timing of this report is fortunate because the AACC/NACB Evidence-Based Laboratory Medicine Committee (EBLMC) and the NACB Board of Directors are nearing completion of a new revision of the NACB LMPG Standard Operating Procedure (SOP). This draft SOP includes several recommendations virtually certain to be approved by NACB leaders. This revision recommends using AGREE II in developing NACB LMPGs and for assessing external groups’ clinical practice guidelines when the AACC and/or the NACB are requested to approve and/or endorse such efforts. In addition, the recommendation for a more consistent use of systematic approaches in grading recommendations, such as a modified GRADE instrument applicable to laboratory tests, is included. Future LMPGs will be developed by committees that are more knowledgeable about current best practices in guideline development. Before LMPGs are finalized, guidelines will be evaluated by at least 2 reviewers from the EBLMC who have been trained to use AGREE II with the online training tools available on the AGREE Trust website (5). Although inviting membership to LMPG committees from the clinical societies that are key stakeholder associations has often been accomplished in the past, that will become a fully consistent practice in constituting future LMPG committees. These changes should address the authors’ recommendations to require (a) a description of the target population, (b) a list of consultants and any funding sources, (c) a transparent methodology, (d) a clear strategy for updating the LMPG, and (e) discussion of resource implications and criteria for monitoring/audits. Following the practice of many guideline-setting organizations, NACB will also make the revised draft SOP available for review by interested stakeholders before final approval by the NACB leadership.

Disclaimer: The findings and conclusions presented here are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

1 Nonstandard abbreviations: NACB, National Academy of Clinical Biochemistry; LMPG, laboratory medicine practice guidelines; AGREE II, Appraisal of Guidelines for Research and Evaluation II; USPSTF, US Preventive Services Task Force; EBLMC, Evidence-Based Laboratory Medicine Committee; SOP, standard operating procedure.
The development of evidence-based guidelines is an evolving process. We appreciate the authors’ efforts in identifying areas for improvement in NACB LMPGs. Data such as those provided in their study strongly support changes that have been incorporated into our SOP with the goal of developing stronger LMPGs with greater impact.

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References


