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Modernizing Clinical Practice Guidelines for the American Academy of Dermatology

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For the AAD Ad Hoc Task Force: Modernizing Clinical Guidance

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For many dermatologists, clinical practice guidelines are the easiest way to access evidence-based medicine.¹ This statement outlines three major changes to how guidelines will now be developed by the American Academy of Dermatology (AAD): (1) Guidelines will use GRADE instead of SORT to rate evidence, (2) Guideline generation will be streamlined, and (3) Guideline committees will have new conflicts of interest requirements.

The transition from SORT to GRADE

There are numerous systems for the development of clinical practice guidelines, creating substantial confusion in interpreting recommendations. Since the mid-2000s, the AAD has been using Strength of Recommendation Taxonomy (SORT).² The benefit of SORT is that it has a simple scale that emphasizes patient-oriented evidence (Table 1).³ However, Grading of Recommendations Assessment Development and Evaluation (GRADE) has since become the most widely used approach for guideline development by more than 100 organizations, including the World Health Organization and the Centers for Disease Control and Prevention. GRADE determines strength of recommendation based on the certainty of evidence and the balance of benefits and harms (Supplement 1).⁴ We believe the transition from SORT to GRADE will ease the synthesis of guideline generation across organizations and allow recommendations to be more easily understood.

Streamlining the guideline development process

In order to make the guideline generation process more efficient, the AAD will: i) Create living guidelines, which will allow for continuous updates based on changing evidence. ii) Shorten time for development and review of guidelines by reducing work group size and expediting the approvals process. iii) Build innovative strategies for moving guidelines into practices, including derivative products and machine readable files, assessing the need and value of new clinical guidance formats, and building processes for their production.

Changes to the conflicts of interest policy

Widespread conflicts of interest among the authors of clinical practice guidelines are a threat to their integrity.⁵ To combat this issue, moving forward at least 51% of AAD clinical guidelines work group members must not have a relevant financial conflict of interest. A non-conflicted member acquiring new relevant conflicts during the course of guideline development will be removed and replaced by a non-conflicted member. The appointee removed for this reason will forfeit the authorship role, even if this member contributed significantly in developing the guideline. Additionally, the chair of the work group is prohibited from having any relevant financial conflict of interest, unless the expertise and leadership is deemed necessary by the Clinical Guidelines Committee. In this instance, a co-chair with no relevant financial conflict of interest will be appointed. The chair or co-chair must also remain free of relevant conflict of interest for at least one year after guideline publication.

Conclusion:

The AAD is implementing a number of changes to modernize its clinical practice guidelines. The next steps for modernizing the AAD's guidelines include converting the guidelines into a user-friendly electronic format that is constantly updated, as well as integrating the guidelines into the electronic medical record system to aid in patient decision making.

References:

1. Eddy DM. Evidence-based medicine: a unified approach. *Health Aff (Millwood)*. 2005;24(1):9-17. doi:10.1377/hlthaff.24.1.9
2. Maymone MB de C, Gan SD, Bigby M. Evaluating the strength of clinical recommendations in the medical literature: GRADE, SORT, and AGREE. *J Invest Dermatol*. 2014;134(10):1-5. doi:10.1038/jid.2014.335
3. Ebell MH, Siwek J, Weiss BD, et al. Strength of recommendation taxonomy (SORT): a patient-centered approach to grading evidence in the medical literature. *Am Fam Physician*. 2004;69(3):548-556.
4. Guyatt GH, Oxman AD, Kunz R, Vist GE, Falck-Ytter Y, Schünemann HJ. What is “quality of evidence” and why is it important to clinicians? *BMJ*. 2008;336(7651):995-998. doi:10.1136/bmj.39490.551019.BE
5. Balshem H, Helfand M, Schünemann HJ, et al. GRADE guidelines: 3. Rating the quality of evidence. *J Clin Epidemiol*. 2011;64(4):401-406. doi:10.1016/j.jclinepi.2010.07.015

Table 1: A comparison of rating quality of evidence and strength of recommendation in SORT vs. GRADE.

	SORT	GRADE
Certainty of Evidence	Level 1, Level 2, or Level 3	High, Moderate, Low, or Very low
Certainty of Evidence Determined by:	<p>Level 1: Good-quality patient-oriented evidence</p> <p>Level 2: Limited-quality patient-oriented evidence, based on risk of bias, inconsistency, or inadequate statistical power</p> <p>Level 3: Other evidence</p>	<p>Generally randomized controlled trials (RCTs) are most highly rated, followed by observational studies, then case series.</p> <p>Quality of evidence is downgraded for:</p> <ul style="list-style-type: none"> • Risk of bias • Imprecision • Inconsistency • Indirectness • Publication bias <p>Quality of evidence upgraded for:</p> <ul style="list-style-type: none"> • Large Effect • Dose Response • Opposing confounding
Strength of Recommendation	A, B, or C	Strong or Conditional
Strength of Recommendation Determined by:	<p>A: Recommendation based on consistent and good quality patient-oriented evidence</p> <p>B: Recommendation based on inconsistent or limited quality patient-oriented evidence</p> <p>C: Recommendation based on consensus, usual practice, opinion, disease-oriented evidence, and case series OR is not based on patient-oriented evidence</p>	<ul style="list-style-type: none"> • Balance between benefits and harms • Patient values and preferences • Cost