# AOA’s 14 Steps to Evidence-based Clinical Practice Guideline Development

1. **Guideline Development Group (GDG):** The Evidence-based Optometry (EBO) Committee selects a multidisciplinary panel of experts, including patient and public representatives, to act as the Guideline Development Group (GDG).

2. **Transparency and COI**: The GDG manages all conflict of interest (COI), which is documented by AOA staff and reviewed during face-to-face meetings.

3. **Clinical Questions**: The GDG defines the literature search criteria and identifies all clinical questions through a question formulation meeting.

4. **Search for Evidence**: The AOA staff sends the search criteria and clinical questions for a systematic review of the literature (outside researchers) and provides all obtained papers to the Guideline Development Reading Group (GDRG). Systematic reviews, when available, are included in the guideline. No systematic review authors are participants in the GDG or GDRG.

   - **Inclusion Criteria (must meet all):** Scientific studies written in English that address the clinical question and that meet the patient population or age range being addressed.

   - **Exclusion Criteria (meets any of the following):** Scientific studies that are not in English, animal studies, studies outside the patient population or age range (if relevant), studies not addressing any topic of the clinical questions searched.

5. **Grade Evidence/Quality**: Two scientific readers and one member from the GDRG are randomly selected to read and grade each paper. They separately grade the paper for quality of evidence based on predetermined grading criteria and state the clinical recommendation(s).

6. **Articulate Clinical Recommendations/Strength**: The GDRG and GDG clinical experts review all clinical recommendations and articulate each for inclusion in the guideline during an “articulation of recommendations” meeting(s). There are single and/or aggregate recommendations made and a strength level is assigned. Potential benefits and harms, costs, and patient preferences are identified, as well as any gaps in research, and each is documented.

7. **Write the Draft**: The AOA staff send the articulation results to the writer to develop draft 1.

8. **Draft Review and Edits**: The GDG reads draft 1, discusses, and edits.

9. **Rewrite/Final Drafts**: The AOA staff send the draft results to the writer for writing/revisions for draft 2 (peer review draft) and send to medical editor for copy editing. Additional reviews are completed as necessary.

10. **Approval and Posting for Peer Review**: The AOA staff and/or EBO Committee chair sends the peer review draft to AOA Board of Trustees for approval to post for peer and public review. The draft is posted on the AOA website, along with a comment form, and the review period is announced. Comments are solicited/colllected electronically and comment authors are not made public.

11. **Final Document Produced**: The GDRG and GDG clinical experts review all peer comments and revise the final document. They may choose to include the peer review comment, not include the comment, and/or identify further gaps to review when preparing the next edition. All comments are documented regarding actions taken/not taken and the final draft is produced.

12. **Final Draft Approval and Legal Review**: The final draft is reviewed by the AOA Board of Trustees and AOA Legal Counsel for approval and verification that the GDG followed the evidence-based process as outlined by the National Academies of Sciences, Engineering, and Medicine (NASEM) – Health and Medicine Division, previously the Institute of Medicine.

13. **Post Guidelines**: The AOA staff posts the evidence-based guideline to AOA website for public use.

14. **Schedule Reviews**: The GDG schedules a review to meet the NASEM guideline development standards and reviews all previously identified gaps in medical research and any new evidence and revises the evidence-based guideline every 2 to 5 years.

*Denotes virtual meetings in 2020/2021/2022 due to the COVID-19 pandemic*