

American Osteopathic Academy of Orthopedics



**The AOAO
Guidelines for the Resident Literature Review, Case Report,
Scientific Paper, or Poster Presentation**

Developed by the AOAO Evaluating Committee

Effective: December 10, 2013

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Introduction

Evaluating research requires that an opinion be formed regarding the overall credibility of a study. In addition, the ability to communicate new and essential medical information to the medical and lay community is a critical skill that all osteopathic orthopedic surgical residents should strive to acquire. The AOA/AAO Evaluating Committee requires residents to demonstrate the ability to synthesize and apply medical research data by developing a scientific paper or poster. Through this process, the resident should improve cognitive skills and learn to manage and communicate medical information.

This guidebook, developed by the AOA/AAO Evaluating Committee, is intended to assist osteopathic orthopedic surgical educators and residents to comply with the AOA/AAO residency training standards that require the submission of a scientific paper to the AOA/AAO Evaluating Committee. Program directors and their faculties should provide hands-on guidance and/or supervision of the resident's research and scientific writing throughout the process.

Note: Authors must obtain Institutional Review Board (IRB) or Animal Care and Use Committee (ACAUC) approval for their projects when carrying out research on either human or animal subjects. Documentation of having obtained this approval must be explicitly included in the manuscript.

For additional information relating to osteopathic orthopedic residency training, contact:

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These Standards apply to the Literature Review, Case Report, and Scientific Paper:

The paper must be evaluated by the program director for clarity, focus, and appropriateness. In addition, the program director must review and approve the paper. The resident must submit the paper via the AOA/AAO Case Log system as part of the annual resident's report.

Author Disclosure Statement - Briefly collate all information regarding conflicts directly related to the material being published from the individual author's summaries. Use the format: Author's initials, then category, then company name. Relevant categories include "has nothing to declare", "is employed by", "was previously employed by", "consults for", "has previously consulted for", "has served as an expert witness for", "received lecture fees from", "has equity interests in", "received grant support (dates) from", "is an inventor on (country)(patent number)", "receives royalties from". Authors may also add other pertinent categories.

The paper must be double-spaced, paginated, with references required for all material derived from the work of others.

Residency Training Standards

Over the course of a residency program, residents should be exposed to the development of scientific research. At the conclusion of an osteopathic orthopedic surgery residency program, residents should have submitted three scientific projects..

In accordance with Article VI, C of the Basic Residency Standards:

C. During the training program, the resident must:

1. Submit scientific papers.
 - a. Scientific Papers: Each resident will submit a scientific paper at the close of each training year with the exception of the first and second year of training.
 - i. As an alternative, a scientific poster exhibit may be substituted for one of these scientific papers during the residency program. This must be approved in writing by the residency Program Director.
 - ii. Poster presentations can only be credited to one presenter. The lead author (only) will be credited for the poster.

To successfully complete the residency training in orthopedic surgery, residents must submit one of the following for each year in training from OGME-R3 to OGME-R5. Examples of scientific projects include: a literature review, a case report, a poster presentation (**Only One During Residency**) or a scientific paper

All documents listed above must be submitted with the resident's annual report on the aoacaseolog system to the AOA.

Literature Review Format

RESIDENT MUST BE THE FIRST AUTHOR

Suggested OGME 3

A literature review can be just a simple summary of sources, but it usually has an organizational pattern and combines both summary and synthesis. A summary is a recap of the important information of the source, but a synthesis is a re-organization, or a reshuffling, of the information. It might give a new interpretation of old material or combine new with old interpretations. Or it might trace the intellectual progression of the field, including major debates. Depending on the situation, the literature review may evaluate the sources and advise the reader on the most pertinent or relevant conclusion.

1. Abstract – Summary include key words and definitions.
2. Introduction – State research subject. Prepare the reader for what is to come in the body of the paper.
3. Review of literature – Systematic reporting of literature with particular emphasis on new data, new interpretation, or new use of old material contained in the search.
4. Discussion – Critical comments, interpretive statements or the taking of a new perspective based on the review. The discussion should include charts, tables, illustrations or case histories that clarify the subject being presented.
5. Conclusion – What should the reader learn as a result of the literature review that was reported? What is the outcome? What can the reader deduct from information presented?
6. References – refer to page 9 for details

Case Report Format

RESIDENT MUST BE THE FIRST AUTHOR

The format of a patient case report encompasses the following five sections: an abstract, an introduction and objective that contain a literature review, a description of the case report, a discussion that includes a detailed explanation of the literature review, a summary of the case, and a conclusion.

1. Abstract - A short review indicating the nature of the report and what is the key feature or features to be learned from the body of the report. Key words must be included and separately identified immediately below the abstract.
2. Introduction and Objectives – This section should provide the subject, purpose, and merit of the case report. It must explain why the case report is novel or merits review, and it should include a comprehensive literature review that corroborates the author's claim.
3. Case Report - This section should be relatively short and it should stress the key or pertinent pieces of information and/or data that apply to the reason why the study was undertaken. The areas to be covered, if applicable, include:
 - Brief history.
 - Chief clinical findings.
 - Past history.
 - Family history.
 - Laboratory results.
 - X-ray results.
 - Consultations.
 - Therapy utilized.
 - Outcome.
 - Autopsy or special report.
4. Discussion - Discuss how, based on the literature review, the case is unique or interesting and warrants consideration by the reader. Stress how the experience and the experience of others should be altered by the information provided from the case. Indicate where there is a difference from the experience of other authors who have been cited in the literature review.
5. Summary - A short and succinct review of what was learned and what is expected for others to learn from the experience of reading the paper.
6. Conclusion - What was learned from the research? What is it that the resident wants the reader to walk away with after reading the article?
7. References - refer to page 9 for details

Scientific Paper

RESIDENT MUST BE THE FIRST AUTHOR

A well-written scientific paper explains the scientist's motivation for doing an experiment, the experiment design and execution, and the meaning of the results. Scientific papers are written in a style that is exceedingly clear and concise. Their purpose is to inform an audience of other scientists about an important issue and to document the particular approach they use to investigate that issue.

The scientific paper must meet all requirements for a scientific paper using the IMRAD format: (**I**ntroduction, **M**ethods, **R**esults, **A**bstract and, **D**iscussion)

1. Introduction - Why are you writing – and why now? Who are you writing for? Who is doing the writing? What problem are you addressing; what is the background to it; and what is the prior hypothesis you were testing?
2. Methods - How did you do the study? What materials did you use or what types of patient did you study?
3. Results - What did you find? How much can you include? What belongs in tables or figures and what is better in the text?
4. Abstract - A short review in 250 words or less indicating the nature of the report and what is the key feature or features to be learned from the body of the report. Key words must be included and separately identified immediately below the abstract.
5. Discussion - What are the strengths and weaknesses of your study? How do your findings, correlate or not correlate with other published evidence? Where now - i.e., what comes next in your research and has your prior hypothesis stood up to your test of it or should you modify it or even abandon it?
6. References - refer to page 9 for details

Poster Presentation Guidelines

RESIDENT MUST BE THE FIRST AUTHOR

Residents may present a poster during the Annual Meeting of the American Osteopathic Academy of Orthopedics. Residents presenting a poster may receive credit toward the scientific paper requirement once during the residency program.

The resident is required to follow all Poster Application guidelines when submitting a poster to be presented at the AOA Annual Meeting.

To apply the poster presentation for credit toward the scientific paper requirement, the following rules apply:

1. The display should have clear objectives or hypothesis, description of methods, results and outcomes, analysis, if applicable, and conclusion.
2. The display should fit a 4'x8' board.
3. Only one resident may receive credit for the poster exhibit.
4. The resident must submit a 250 word description of the objectives, methods, hypothesis, and summary of results or outcomes and conclusion of the poster presentation. In addition, the program director must review and approve the paper. The resident must submit the paper via the aoacaseolog system as part of the annual resident's report.

Reference Format

Reference List: Basic Rules

Your reference list should appear at the end of your paper. It provides the information necessary for a reader to locate and retrieve any source you cite in the body of the paper. Each source you cite in the paper must appear in your reference list. Likewise, each entry in the reference list must be cited in your text.

Your references should begin on a new page separate from the text of the essay. Label this page References (with no quotation marks, underlining, etc.), centered at the top of the page. It should be double-spaced just like the rest of your essay.

Basic Rules

- All lines after the first line of each entry in your reference list should be indented one-half inch from the left margin. This is called hanging indentation.
- Authors' names are inverted (last name first); give the last name and initials for all authors of a particular work unless the work has more than six authors. If the work has more than six authors, list the first six authors and then use et al. after the sixth author's name to indicate the rest of the authors.
- Reference list entries should be alphabetized by the last name of the first author of each work.
- If you have more than one article by the same author, single-author references or multiple-author references with the exact same authors in the exact same order are listed in order by the year of publication, starting with the earliest.
- When referring to any work that is NOT a journal, such as a book, article, or Web page, capitalize only the first letter of the first word of a title and subtitle, the first word after a colon or a dash in the title, and proper nouns. Do not capitalize the first letter of the second word in a hyphenated compound word.
- Capitalize all major words in journal titles.
- Italicize titles of longer works such as books and journals.
- Do not italicize, underline, or put quotes around the titles of shorter works such as journal articles or essays in edited collections.
- For more information on writing a research abstract, the following link offers some helpful tips:
http://www.acponline.org/residents_fellows/competitions/abstract/prepare/res_abs.htm. Please be aware the above link provides a guideline ONLY. The AOA does not endorse the website or society in any way.