Wolters Kluwer Health

How to Develop Effective Articles for Publication in Medical Journals

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Learning, Research, & Practice

Journals published by Wolters Kluwer Health

When you are planning a paper:

Where to start?

Where to submit?

How to write?

Am I doing it right?

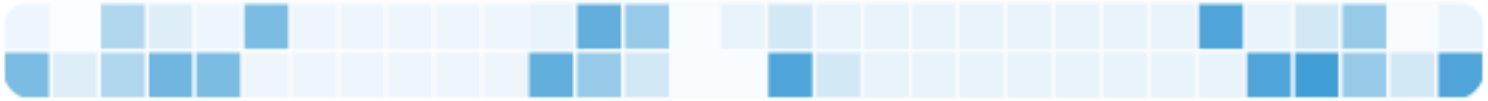
Why my paper was rejected?

How to submit?

What the editors want?

How come he got published?

Where to start?



Identify target journals

- Aim and scope?
  - Who are my audience?
  - Is it a right place to tell your story?

The Cancer Journal

The Journal of Principles & Practice of Oncology provides an integrated view of modern oncology across all disciplines. The Journal publishes original research and reviews, and keeps readers current on content published in the book Cancer: Principles & Practice of Oncology.

Melanoma Research

The scope of the Journal is broad, embracing the entire range of studies from fundamental and applied research in such subject areas as genetics, molecular biology, biochemistry, cell biology, photobiology, pathology, immunology, and advances in clinical oncology influencing the prevention, diagnosis and treatment of melanoma.

Identify target journals

- Aim and scope?
  - Who are my audience?
  - Is it a right place to tell your story?

- SCI indexed? Impact Factor?

Know more about your targets

- Topics
- Article types
- Rejection rate
- Publication speed
- Circulation volume
- Style

Circulation

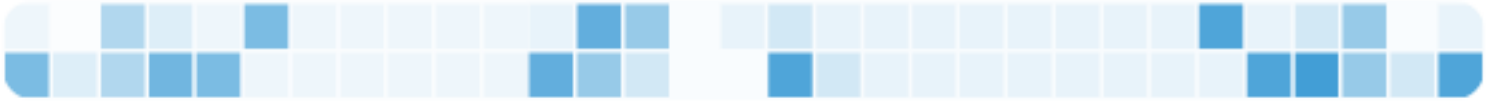
- **Frequency:** Weekly
- **Audience:** Cardiologists, cardiovascular surgeons, electrophysiologists, internists, nurses and others interested in cardiovascular medicine
- **Pages per year:** 7,087
- **Impact Factor:** 14.948
- **Manuscript Acceptance Rate:** 11%
- **Lead Times for Original Research Articles:**
  Submission to 1st Decision: 28 days;
  Acceptance to Print Publication: 77 days
- **Circulation:** Over 23,900

Always read Instruction for authors!

- How to Contact the Journal
- How to Prepare a Manuscript
- How to Submit a Manuscript
- Revised Manuscripts
- Accepted Manuscripts
- Permissions and Rights Question and Answer for Authors

- http://circ.ahajournals.org/site/misc/ifora.xhtml

How to write?



Structure of scientific articles

- Scientific publications typically follow the 'IMRaD' structure
  - Introduction
  - Methods
  - Results
  - and
  - Discussion

IMRaD: Methods

- Give sufficient details so that the readers are able to repeat your study
- State:
  - What you did
  - The selected methodology must be appropriate to answer the research question
- Tips:
  1. Describe the design and controls (e.g., retrospective, observational study, case-controlled, volunteers etc). Presence of a control group is of critical importance
  2. Describe the selection criteria (e.g., for patients)
  3. Clarify how appropriateness of the study group was established
  4. Provide an in-depth explanation of how the sample size was calculated
  5. Remember statistical methods, clinical trial registration and ethics approval
  6. Use references for standard methods, rather than describing in detail

IMRaD: Methods

- **Avoid 'salami' science!**
  - Dividing the work into 'minimum publishable units' dilutes the importance of the manuscript
  - One comprehensive paper is much stronger than several small papers

IMRaD: Results

- Describe to what your results yielded or what you found in the research
- State:
  - What you found
  - Data to support the research question
- Results of randomized trials are commonly presented in the following sequence:
  1. Patient and procedural data
  2. Primary endpoint
  3. Secondary endpoint
  4. Safety/tolerability data

Results

Tips:

1. Describe the most important findings first (same as in 'Methods'). Keep things simple & relevant,
2. Every method in the 'Methods' section should be accompanied by a result in the 'Results' section, vice versa.
3. Use figures to illustrate key points, Use tables to show numerical comparisons. Don't repeat data from tables/figures
4. Include base data as well as p-values/%'s/confidence intervals/effect size
5. Avoid discussing strengths and weaknesses – present the data. Present only those data that impact on the 'Discussion'
6. Present only your own findings
7. Stated in past tense

Tables and Figures

- Create good figures and legends
  - Illustrations should be used to draw the readers attention to important findings
  - Illustrations should clearly display the findings
  - Use arrows, asterisks and other designations to make the figures easy to follow
  - Avoid use of colour when unnecessary
  - Prepare ‘stand-alone’ legends

- The message of a good figure can commonly be summarized in a single sentence

MRaD : Introduction

- Provide the reader with key background details that relate to your paper
- Clearly state:
  1. What is our research question (What problem we are trying to solve?)
  2. What other studies have been published on the topic
  3. What is the significance of the research (why did we do the research?)
- Tips:
  1. Provide context for the reader
  2. Keep to the key points
  3. Keep it short, concise (aim for 300 words)
  4. Emphasise what is new in your work in the 'introduction'

MRaD: Introduction

- If there is more than one objective ...
- Describe the primary objective before the secondary objective

Research question/background

The clinical utility of identifying pediatric metabolic syndrome (MetS) has been questioned recently because of evidence demonstrating marked short-term instability in the categorical diagnosis.[1-3] Although instability of the diagnosis is an important concern, particularly in relation to considerations of pharmacotherapy in children and adolescents (herein referred to as youth), it is only 1 component in prediction. An equally important consideration concerns whether pediatric MetS identifies those at increased risk of subsequent disease later in life. Adults with MetS are at increased risk of type 2 diabetes mellitus (T2DM)[4] and cardiovascular disease,[4] but the evidence base for youth is not well established. For example, although some studies suggest that pediatric MetS predicts adult MetS,[5-7] few studies have examined the link between MetS in youth and risk of future cardiovascular disease [8] and T2DM in adulthood.[7] Furthermore, the existing data are limited by very small case numbers and did not fully consider the contribution of each MetS component to risk prediction.[9] It is therefore evident that the current understanding of youth MetS and its components and their association with adult cardiometabolic-related outcomes is in its infancy, and there is clearly a need for data from large-scale longitudinal studies on the utility of identifying pediatric MetS.

Aims primary/secondary

The present study is based on 2 prospective cohorts, the Bogalusa Heart Study (BHS) and the Cardiovascular Risk in Young Finns Study, that both have MetS risk factor variables measured in youth (baseline) and again in adulthood (follow-up). Our aims were to determine the status of pediatric MetS as a risk factor for adult MetS, subclinical atherosclerosis (carotid intima-media thickness [cIMT]), and T2DM and compare and contrast this prediction with its individual components. A secondary aim was to determine the long-term (childhood to adulthood) stability of MetS. These aims are in accord with the directions for future research detailed in the February 2009 Scientific Statement from the American Heart Association on MetS in children and adolescents.[1]

IMRaD: Discussion

- The function of the 'Discussion' is to:
  - Discuss how the results answer the research question posed in your 'Introduction'
  - Compare and contrast current results with other studies in the field
  - Minimize bias

IMRaD: Discussion

- Put the results in context
- State:
  1. What was the answer to your research question
  2. What you found and what else is known about the topic
  3. The strengths AND weaknesses of your approach – was your methodology good enough
  4. What are the areas for potential new research
- Discussion commonly has the following structure:
  - Beginning : State major findings
  - Middle: Put current research in context
    Implication of current work
    Limitations
    Directions for further research
  - End: Summary (conclusion)

IMRaD: Discussion

Tips:

1. Present the most important result in the first paragraph
2. Provide a brief scholarly review of the literature and place your findings in perspective
3. Acknowledge limitations
4. Provide potential explanations and clinical implications of your work
5. Have a medical scientist who was not involved with your work review it before submission

IMRaD: Discussion

- Common shortcomings
  1. Too long, unfocused
  2. Too much repetition of results
  3. Fails to interpret results and place them in context
  4. Selectively cites favourable papers
  5. Fails to reconcile opposing findings of others
  6. Offers no explanation of unexpected results
  7. Limitations not acknowledged
  8. Fails to distinguish statistical significance from biological significance, i.e. a large ‘p’ value does not always imply important clinical difference
  9. Far exceeds the data in the ‘Results’ section

Titles

- Perhaps your only chance to make a good impression
  - The title might be all a reader EVER reads
- Include what is unique or important about your study
- Include your major finding
- Indicative titles give the subject matter/purpose:
  - "Comparison of morning versus afternoon cecal intubation rates"
- Declarative titles are informative and give the conclusion:
- "Suppression of the JNK Pathway by Induction of a Metabolic Stress Response Prevents Vascular Injury and Dysfunction"

Titles

- Simple and concise, but informative
- Accurate and specific
- States the subject in full
- Interesting and eye-catching, but Not cute
- Indicates study design, animal species
- Grammatically correct

Titles

- Do not use
  - Abbreviations (unless well accepted)
  - Literary titles
  - Exclamatory titles (and try to avoid questions in titles)
  - All capitals

- Key words could hint towards possible title:
  - Colonoscopy
  - Bisacodyl
  - Efficacy
  - Randomized
  - Controlled

Abstracts

- A succinct summary of your research
- AB - absolutely, STR – straightforward, ACT – actual data
  Word count: ignore at your peril
  - 250-400 words (≤20 sentences for most people)
  - Some abstracts are 200 words (!), or structured, check the journal's guidelines
- Tips:
  - Specific and brief
  - Clear and concise
  - Follow IMRaD
  - Don't include references (unless asked to)
  - Use abbreviations wisely

References

- Current, original, and relevant
- Acknowledge input & direct the reader to additional information
  - Think from a reader's perspective: "that is interesting: where do I find out more?"…
- Tips:
  - Currency of references cited is important – cite recent papers
  - Don't reference every single sentence; do reference key points and ideas
  - Cite original research where possible
  - If you cite it, read it first!
  - Avoid the tendency to self-cite

Key Words

- Key Words help editors, reviewers and readers identify the subject

- Tips:
  - Not all journals request keywords when you submit
  - Use standard terms
  - Check MeSH (Medical Subject Headings) [MEDLINE/PubMed] for inspiration
  - Check the keywords on other similar papers (e.g., those you have referenced)
  - Think about what words your audience would use if they were looking for information about what is in your paper

Acknowledgements and Disclosures

- Keep everything above board
- Disclosures/Conflict of Interest:
  - Facts known to a participant in the publication process that, if revealed later, would make a reasonable reader feel misled or deceived should be declared
- Conflicts may be:
  - Academic
  - Financial
  - Political
  - Personal

Acknowledgements and Disclosures

- Everyone involved in the publication process must disclose all relationships that present a potential conflict of interest (or declare the absence of any such relationships)

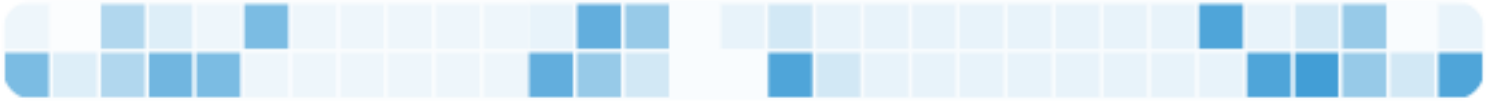
- What do editors do with the information?
  - ICMJE: "Publish this information if they believe it is important in judging the manuscript"

- Good publication practice: acknowledge contributors

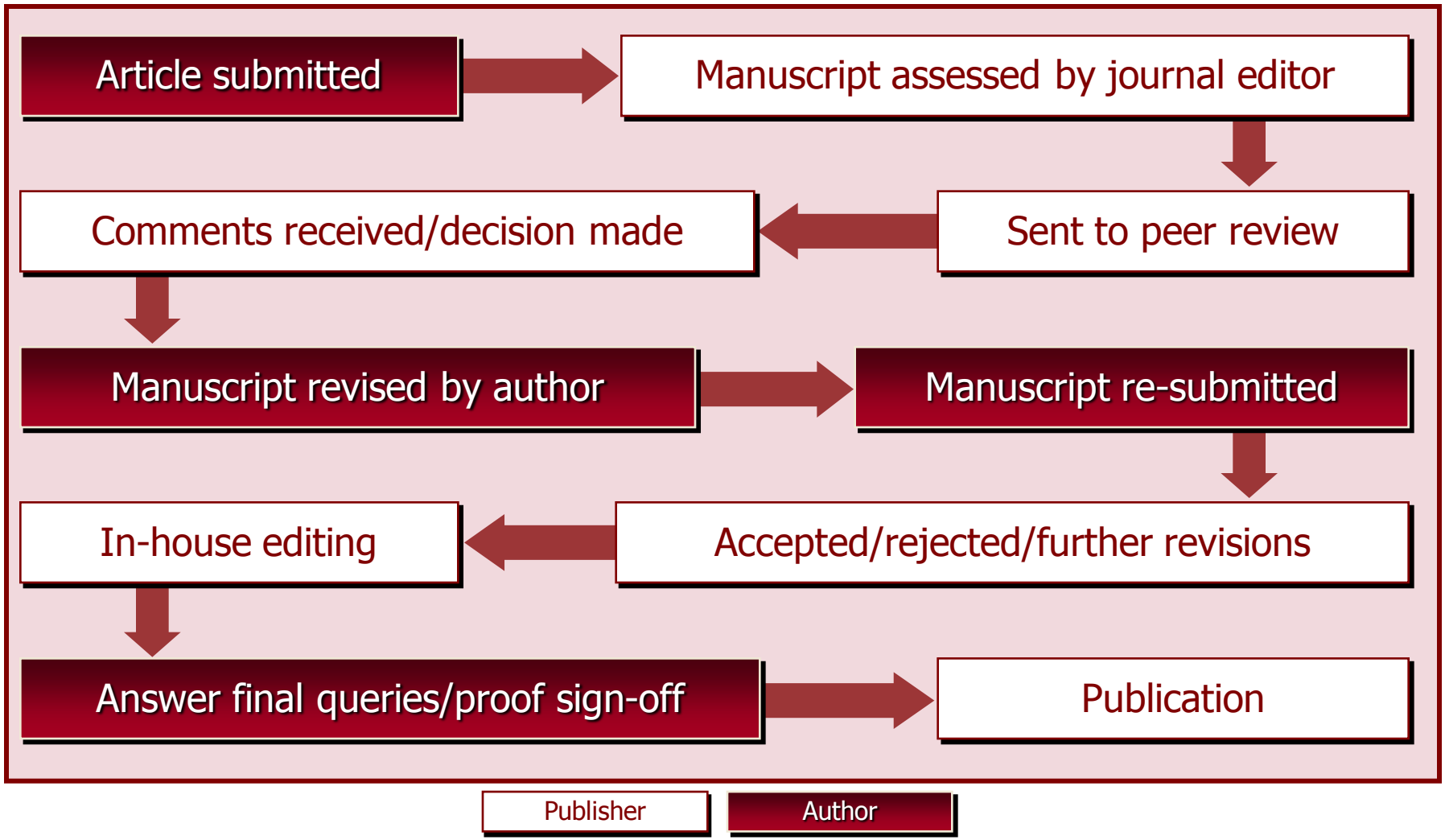
Guidelines: Who Is the Author?

- There is no universally agreed definition
- ICMJE "Uniform Requirements" definition:
  - All those listed as authors must meet 3 criteria
    - Substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data
    - Drafting the article or revising it critically for important intellectual content
    - Final approval of the version to be published
- "People who did just what they were told – no matter how well they did it – do not meet the requirement for authorship."
- Contributors who do not meet authorship criteria should be listed in an acknowledgments section

How a Scholarly Paper Gets Published



Publication process



What editors look for...

- Novelty
  - Information about a new drug, new patient population, new issue
  - Definitive data in a controversial area
  - Extending previous findings
  - Large study population (confirmatory data)
- Tip:
  - Communicate the novelty of your findings in a cover letter to the Editor

What editors look for...

- Relevance
  - Impact on clinical practice (new answer for old problem, consolidating evidence, changing accepted practice)
  - Develop/validate a method of diagnosing or quantifying severity of disease
  - Establish a mechanism of disease
  - Generate a 'hypothesis'
- Tip:
  - Communicate the relevance of your findings in a covering letter to the Editor

What Editors look for...

- Quality
  - Sound methodology, appropriately powered
  - Comprehensive and analytical
  - Well presented and well written
- Ensure your submission is of the highest quality

Peer review process

- Peer review
  - Is a process of subjecting an author's research or ideas to the scrutiny of experts in the field
  - It is used by journal editors to screen and select submitted manuscripts
  - It helps to ensure balance
  - It is critical to establishing a credible body of knowledge for others to build upon

- Tip:
  - Publications that have not undergone peer review are treated with suspicion by scholars and professionals

Peer review process

- Addressing referee comments
  - Use ‘track changes’ or different colour to clarify revised text in the manuscript
  - Attach a separate sheet listing responses to referee comments
  - Include referee comments in response
  - Respond to individual comments
  - State upfront what action was taken (Done/Not done) and then explain the reason
  - The editor may send the revised manuscript and author responses to referees for a second look

Peer review process

- ‘Model’ response to a reviewer
  - Include the reviewer’s comment
    Referee A, point 1: “The objective of the study is hard to find and is not clearly stated.”
  - Followed by your response
    Thank you, we have revised our manuscript. The objective is now included as the last sentence of the introduction (page 3, last sentence) and has been revised to read “The aim of our study was to…”

Peer review process

- Common reasons for rejection
  - Unrealistic target journal
  - Paper is nothing new
  - Overlap with other work — 'salami publication'
  - Paper is not clinically relevant
  - Study design is fatally flawed
  - Peer reviewer comments are inadequately addressed
  - Paper has been rejected before but problems have not been addressed before resubmission
  - 'Fraud' — most often plagiarism

Publishing is about following the rules

- Plan your choices of journal – be realistic
- What are Editors looking for?
  - Editors want good papers that will be read and cited
- Follow the process
  - Be honest and professional
  - Never withhold information
  - Don't break the rules
- Take heed of comments from the editor and peer reviewers
- Be aware you may not be successful – but don't give up!
- The process takes time
  - On average, expect 2-3 months for peer review
  - Up to a year for publication after acceptance (depending on the journal), but often articles are published as non-final versions online before print


Questions?
Thank You!