Writing for Publication in Biomedical Journals

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My perspective

• 19 years as reviewer for various journals
• 7 years as Associate Editor for reviews for Clinical Toxicology
• 1-1/2 years as Associate Editor for Internal and Emergency Medicine
My perspective

- 19 years as reviewer for various journals
- 7 years as Associate Editor for reviews for Clinical Toxicology
- 1-1/2 years as Associate Editor for Internal and Emergency Medicine
- Newly selected as the Founding Editor-in-Chief of Toxicology Communications

• Before
  – Project design
  – IRB
  – Authorship

• During
  – Journal selection
  – Style
  – Submission and revision

• After
Reasons to publish

**Societal**
- Add new knowledge to the body of human knowledge.
- Discuss and debate to refine human knowledge.
- Improve human health care.

**Personal**
- Share your work and ideas
- Get hired
- Get promoted
- Get grants / funding
- Become recognized expert in the field.
Start with good research

FINE

• Feasible
  – Can you complete in the available time?
  – Can you enroll a sufficient number of patients?

• Interesting
  – Will I stick with the project?
  – Will others want to know more about this?

• Novel
  – Are there unanswered questions?
  – Could a new way be better?
  – Should I challenge conventional wisdom or dogma?

• Ethical

Plan your research

• Select study type

• Plan methods based upon the appropriate reporting guideline.
  – CONSORT, PRISMA, STROBE, STARD, etc.

• Plan statistical analysis in advance.

• Trial registry for prospective clinical trials.
  – www.clinicaltrials.gov
Begin a new project with the abstract

• Background
• Objective
• Methods
  – Say what you will do, then do what you said.
• Results
  – not yet known, but the form follows the methods.
• Conclusion
  – not yet known, but follows the results.

IRB approval

• Most journals now require explicit statement in the methods.

• All instances where WU/BJH/SLCH engages in human research must be reviewed and approved by the IRB prior to initiation. Engagement encompasses all activities whereby any WU/BJH/SLCH employee (including faculty or staff), agent, student, fellow, or post-doctoral appointee intervenes or interacts with living individuals for the purpose of research, obtains individually identifiable private information about living individuals for the purposes of research, or receives an award to conduct human research even when all activities involving human participants are carried out by a subcontractor or collaborator.
IRB approval

Exempt

• “Exempt” refers to exemption from requirement for written informed consent.
• “Exempt” does NOT mean that IRB does not review or approve the project.
• IRB determines whether a study is “exempt from consent” – not the investigator.

Expedited

• Certain studies undergo “expedited review”.
• Some, but not all, expedited studies are also exempt from consent.

Authorship

• http://www.icmje.org/

• Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
• Drafting the work or revising it critically for important intellectual content; AND
• Final approval of the version to be published; AND
• Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.
Select your journal

• Who is the target audience?
• Which journals publish similar work?
• What is the journal’s scope?

• Carefully consider Open Access options.

Open Access (OA)

• Author usually pays
  – $1000 to $3000
  – except if funded by NIH, Burroughs-Welcome Trust, certain other grantors, or certain universities.
• Reputable journals give OA option after acceptance
• Often lower quality and lower visibility
• Some are scams / predatory journals
  – May mimic name of real journal
  – Beware of spam e-mails
  – Beall’s List of Predatory Publishers

https://scholarlyoa.com/2016/01/05/bealls-list-of-predatory-publishers-2016/
http://thinkchecksubmit.org
Instructions for Authors

• Each journal has “Instructions for Authors”
• Types of articles that the journal does and does not publish.
• Formatting requirements
  – Required sections
  – Word counts
  – Reference styles

Title

Do
• Simple
• Keywords
• Population / model
• Consider a question?
• Use subtitles sparingly
  – methods

Avoid
• Complex words / phrases
• Unnecessary words
  – E.g. “A study of”
• Abbreviations
• “New” or “Novel” or “Innovative”
• Stating conclusion in the title.
Abstract

• Usually <= 250 words
• Usual structure:
  – Context (background, problem)
  – Aim (objective, hypothesis)
  – Methods (population, setting, design, measurements, statistics, etc.)
  – Results (follow directly from methods)
  – Conclusion (relevance, implications)
• No references, unusual abbreviations, figures, tables.

Manuscript

• Introduction (why?)
  – Maximum of 3 short paragraphs
  – Cite few key publications, but avoid extensive review
• Methods
• Results
• Discussion (what does it mean?)
  – Place your results in context
  – Compare and contrast to previous work
  – Address limitations
• Conclusion
  – Simple declaration
  – Avoid “further research is needed”
Write well
Scientific Writing with William Faulkner and Ernest Hemingway

Faulkner: The Artist

“Loving all of it even while he had to hate some of it because he knows now that you don’t love because: you love despite; not for the virtues, but despite the faults.”
Absalom, Absalom. 1289 words.

Hemingway: The Journalist

“All you have to do is write one true sentence. Write the truest sentence that you know.”
Use the active voice

• Clearer and shorter.
• Readers prefer it.
• Leading journals prefer it.

“Annals prefers a straightforward, unpretentious writing style whose chief purpose is to efficiently convey information. Use the active voice.”
Avoid common errors

- “Data” is the plural form of “datum”
  - “This data shows...” INCORRECT
  - “These data show...” CORRECT

- Avoid “a study”, “another study”, “a later study”
  - Indicate by lead authors (“Smith et al found...”)
  - A case report is not a “study”.
  - A case series is not a “study”.

Examples of the Three Voices in Writing

1. Active Voice
   “You ate six donuts.”

2. Passive Voice
   “Six donuts were eaten by you.”

3. Passive-Aggressive Voice
   “You ate six donuts and I didn’t get any. Don’t worry, it’s cool. I can see donuts are very important to you.”
Punctuate clearly and correctly

Reviewers

• Usually double blinded.

• Some journals give option for you to suggest preferred or non-preferred reviewers
  – Avoid recent co-authors or colleagues
Response to reviews

• Respond to every review comment
• Be polite. Do not argue.
• Indicate the changes made in response.
• Explain any changes that you declined to make. These should be the minority.
• Follow journal instructions for showing the changes to the text.

• Avoid adding new material and unrequested changes.
• Follow journal instructions
• Adhere to deadlines
  – E-mail the editor if you have questions (e.g. reconciling conflicting comments).
  – E-mail the editor if you need an extension.
Proofreading

• Publisher will send a pre-production proof.
• Respond to all author queries.
  – Clarification, spelling, punctuation, adjustment for journal style, etc.
• Avoid adding new material and unrequested changes.
• OK to make a copy-editing change.
• Follow journal instructions.

Post-publication

• Update your CV to reflect new publication
• Check journal authors’ rights regarding the published manuscript.
  – Some allow authors to share full-text on third-party websites
  – Some restrict sharing for embargo period of 6-12 months.
  – Some limit sharing to pre-production version.
• Contact your hospital / university media relations
Letters to the Editor

• Authors of original article always get the last word.

• Be polite and respectful while criticizing others’ work or responding to others’ criticism of your work.

“Always keep your words soft and sweet, just in case you have to eat them.”
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