# Manuscript writing

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# Types of Manuscripts

- Full research report
  - 3000 words
  - 3-4 main/supporting points
  - 3-4 tables figures
- Brief report
  - 1800 words
  - 1-2 main/supporting points
  - 1-2 table/figure
- Research letter
  - 800 words
  - 1 point
  - 0-1 table/figures

# Anatomy of a Manuscript

- Title page
- Abstract
- Introduction
- Methods
- Results
- Tables/Figures
- Discussion
- Acknowledgements

# Which to write first? / Writing Order

- Introduction (brief literature review)
- Ghost Tables/Figures (analytic plan)
- Methods
- Tables/Figures
- Results
- Discussion
- Abstract
- Title page
- Acknowledgements

# Introduction

- Nature of problem and significance
- Context within prior knowledge
- Specific research objectives and preplanned analyses, including subgroup analyses

# Introduction 3 paragraphs

- Paragraph #1: What we know
  - Limit to only pertinent references
- Paragraph #2: What we don't know.
- Paragraph #3: What we did to find out
  - Primary and secondary research objectives
  - Preplanned subgroup analyses

# Figures/Table

- Aim for 3-4 total
- Table 1: Patient characteristics
- Table 2-4: one each research objective

# Tables

- Purpose
  - Concise display of info
  - Provide several levels of detail
  - Reduces length of text

# Methods (1)

- Study design
- Subject selection
  - Source population
  - Inclusion criteria
  - Exclusion criteria
  - Rationale for inclusion/exclusion criteria

# Methods (2)

- Technical information
  - Variable definition and measurement
  - Reference well known procedures
  - Briefly describe and reference less known procedures
  - Describe in detail new procedures
  - Provide rationale for procedure selection
  - Apparatus: manufacturer name and city in parentheses

# Methods (3)

- Statistical/Analytic methods
  - Provide enough detail for a knowledgeable reader with access to original data to verify results
    - Specific analytic methods
    - Software
  - Approach to bias/confounding
- Human subjects approval

# Methods (4) 3-5 paragraphs

- Paragraph #1: participant selection
- Paragraph #2-4: variables and procedures for each primary and secondary objective
- Last paragraph: analytic methods

# Results (1)

- Narrative should be same logical sequence as tables/figures
- Summarize rather than repeat all data from tables in text
- Include absolute numbers with percentages

# Results (2) 3-4 paragraphs

- Paragraph #1
  - Patient recruitment
    - Accept/decline
  - Patient characteristics
- Paragraph #2
  - Evidence for first objective
- Paragraph #3
  - Evidence for second objective
- Paragraph #4
  - Evidence for third objective

# Discussion (1)

- Summarize new and important findings
- Conclusions should follow objectives
- Suggest mechanism
- Suggest clinical implications
- Discuss limitations

# Discussion (2) 5 paragraphs

- Paragraph 1
  - Summarize main finding
- Paragraph 2
  - Summarize supporting findings
- Paragraph 3
  - What are the implications
  - How does it change practice?
- Paragraph 4
  - Limitations
- Paragraph 5
  - Summary/conclusion

# References

- Cite primary work over review articles
- Avoid abstracts when possible
- “in press” articles require permission
- Avoid personal communication unless it provides essential information not available from a public source – include person and date
- Check accuracy and formatting

# Title Page

- Concise title that includes important info
  - Study design
  - Research question/finding
  - Makes electronic retrieval sensitive and specific
- Authors names and institutional affiliations
- Corresponding author: name, mailing address, fax, email
- Sources of grant support
- Running head (<40 characters)
- Word count for text only
- Number of figures/tables

# Abstract

- Content or background
- Study purpose
- Basic procedures
  - Selection of subjects
  - Key variables
  - Analytic methods
- Main findings including effect sizes/statistical significance
- Principal conclusions

# Key Words

- 3-10 works that capture main topics for indexing

# Abbreviations

- Only standard abbreviations
  - ARV or ART
- Use full term, then abbreviation in parentheses after first use

# Acknowledgement


- Individuals who made essential contributions
- Funding source

# Cover letter

- Format of article
- Brief summary of finding
- Statement of non-redundancy of submission of publication
- Conflict of interest
- Read and approved by all authors
- Contact info for corresponding author

# Authorship Criteria

- Substantial contribution to
  - Conception and design, or
  - Acquisition of data, or
  - Analysis and interpretation
- Drafting and critical revision of manuscript for intellectual content
- Final approval of submitted version

# Authorship Order

- First author
  - Design/conceive the study
  - Writes first draft
  - Partners with last author for subsequent drafts
- Last author
  - Usually experienced investigator who partners with first author in interpretation, analysis, and writing
- Second author
  - Major contribution
- Third author
  - Important contributions
- Middle authors
  - Everyone else who qualifies for authorship

# Corresponding Author

- Usually first or senior author
- Submits manuscript
- Corresponds with publisher/editor
  - Revision
- Receives subsequent correspondence from outside investigators

# Conflict of Interest

- Financial or personal relationship that inappropriately influences author, reviewer or editor
  - Employment consultancies, stock ownership, expert testimony
  - Same institution, relative, mentor, student, academic adversary
  - All potentially perceived rather than just actual conflicts should be disclosed

# Strategies For Success

- 2 uninterrupted hours per day
- Write intro/methods while collecting data
- Consider opinion/review paper while collecting data
- Prepare ghost tables to guide analysis
- Write topic sentence for each paragraph

# Simple as 19 Sentences
## *One topic sentence per paragraph*

- Introduction
  - #1: What we know
  - #2: What we don't know.
  - #3: What we did to find out
- Methods
  - #4: participant selection
  - #5-9: variables and procedures for each primary and secondary objective
  - #10: analytic methods
- Results
  - #11 Patient recruitment and characteristics
  - #12 Evidence for first objective
  - #13 Evidence for second objective
  - #14 Evidence for third objective
- Discussion
  - #15 Summarize main finding
  - #16 Summarize supporting findings
  - #17 What are the implications/how does it change practice?
  - #18 Limitations
  - #19 Summary/conclusion