

2008 UIC Emergency Medicine Residency Research Course
Successful Manuscript Writing
Edward P. Sloan, MD, MPH, FACEP

Manuscript Writing:
*How to Get your
Manuscript Written
Effectively and Easily*

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Overview

Objectives

- Review the template manuscript
- Apply so as to meet your needs
- Be systematic
- Make the process enjoyable
- Write the paper
- Get it done!

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Overview

Key Concepts

- Simple, constant, clear
- Short and sweet
- Complete
- Parallel construction
- Focused on research questions

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Introduction

Paragraph 1

- What is the issue or problem?
- Why is it relevant?
- Why must it be solved?

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Introduction

Paragraph 2

- Provides overall understanding
- What other results are known?
- What are their limitations?
- Why must this study be done?
- Why will it be unique in solving the problems?

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Introduction

Paragraph 3

- What is the purpose of this study?
- What is the general study type?
- Who will address (generally)?
- What therapy or intervention?
- What are the study questions?

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Methods

Paragraph 4

- What is the study setting?
- What type of hospital? Patients?
- What type of doctors, training?
- What kind of area, city?

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Methods

Paragraph 5

- What patients will be studied?
- What criteria?

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Methods

Paragraph 6

- What patients will be excluded?
Why?

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Methods

Paragraph 7

- What is the intervention?
(Describe Clearly)

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Methods

Paragraph 8

- What is the control, or placebo?

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Methods

Paragraph 9

- What is the randomization
method?

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Methods

Paragraph 10

- What is the level of blinding?
Why?

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Methods

Paragraph 11

- What is the main outcome
measure?

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Methods

Paragraph 12

- How will data be collected?
- What data, in brief?

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Methods

Paragraph 13

- How will data be analyzed?
- Are there unique data analysis methods such as multivariate analysis?
- How was this done?

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Methods

Paragraph 14

- How are patient protections addressed?

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Results

Paragraph 15

- What patients were included and excluded?
- Any difference/impact because of excluded patients?

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Results

Paragraph 16

- Describe the study patients globally.
- List all important demographics.
- Are there any differences between the two groups?
- Table 1

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Results

Paragraph 17

- Describe the main outcome.
- Does the outcome differ based on interventions?
- In a “what is the number” study, give the number.
- Table 2

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Results

Paragraph 18

- Describe main secondary outcome.
- Does outcome differ based on intervention?
- In “what is the number” study, give the number.
- Table 3.

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Results

Paragraph 19

- Describe 2nd secondary outcome.
- Does outcome differ based on the intervention?
- In a “what is the number” study, give the number.
- Table 4.

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Results

Paragraph 20

- Describe some global outcome, that takes into account all of the above outcomes.
- Consider cost.
- Figure 1

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Results

Paragraph 21

- Describe other interesting findings, not necessarily related to the study questions.

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Discussion

Paragraph 22

- Restate why these issues and this study are important.
- Speak generally about why this discussion is worth reading.

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Results

Paragraph 23

- State why the population is unique, important, or different.
- (Please see results para 16.)

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Results

Paragraph 24

- State the relevance of main result.
- How does it compare to a similar result in other studies?
- Why might it be the same or different based on this study design?
- (Please see results para 17.)

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Results

Paragraph 25

- State the relevance of second result.
- How does it compare to a similar result in other studies?
- Why might it be the same or different based on this study design?
- (Please see results para 18.)

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Results

Paragraph 26

- State relevance of 2nd second result.
- How does it compare to a similar result in other studies?
- Why might it be the same or different based on this study design?
- (Please see results para 19.)

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Results

Paragraph 27

- State the relevance of global results.
- How do they compare to other studies?
- Why might it be the same or different?
- Consider cost in more detail.
- (Please see results para 20.)

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Results

Paragraph 28

- What are the limitations of the study?
- How should the reader interpret the results given these limitations?
- Are these limits more or less than other studies? (Was this a reasonable study?)
- What is the value of the study, even with the limits?

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Results

Paragraph 29

- What future work needs to be done?
- What actually needs to be studied?
How? In whom? Why?
- How will future work help us?
- What new questions now exist?

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Results

Paragraph 30

- What did we learn from this study?
- What should we do differently clinically based on what we learned?
- Why? With what expected effect?
- Will patient outcomes improve?

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Manuscript Writing *General Notes*

- Keep it short and sweet.
- Limit long intros and discussions.
- Be explicit in your methods. Why did you do what you did?
- Talk about excluded patients in the results.

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Manuscript Writing *General Notes*

- Use tables, figures to present the data.
- Use written results to summarize or aggregate tabular data.
- Do not simply restate the same exact data in both tables and written words.
- Limit the number of tables and figures.
- Use figures that tell the story.

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Manuscript Writing *General Notes*

- Answer the study questions with data using a parallel format.
- Question 1, answer 1, discussion 1, etc.
- Don't answer questions not asked.
- Don't do a lit review in the introduction or discussion.
- Discuss in detail only your data.

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Manuscript Writing *General Notes*

- Discuss the results in the exact order they were presented in the results.
- Feel free to discuss any unique patient population, design, or analysis issues.
- Make it easy to read.
- Write for impatient, data overloaded, wishing to be spoon fed learners and clinicians.

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Manuscript Writing *General Notes*

- Don't over emphasize limitations.
- Every study has merits. Every study has limitations.
- Provide a balanced view for each.
- Don't restate the whole area of research

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Manuscript Writing *General Notes*

- Be clear as to what you learned.
- Be specific about what must be done in the future, not just "future research needs to be done."
- Give specific clinical or research recommendations.

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Manuscript Writing

General Notes

- Acknowledge all the people who helped you with the work.
- Make sure authors are authors.
- Store the data and analyses so that they can be accessed in the future.
- Store the paper on the Internet.

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Conclusions

- This is a plan, a framework
- It simplifies the process, breaking the work into pieces easily completed
- It is a process that can be replicated
- Process enhances the ability to write a readable manuscript
- Process minimizes work, promotes success for all

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Recommendations

- Follow the format
- Review the format prior to any manuscript writing
- Discuss each paragraph in general terms with each team member
- Use it to guide the research itself

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Recommendations

- Write as much of the paper first as is humanly possible
- Write the introduction and methods
- Format the data tables and abstract
- Put together the literature analysis section based on the lit search

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Recommendations

- Do the research and analysis
- Fill in the data tables and abstract
- Compare data to literature data
- Write the results and discussion
- Write the full paper before you present it...do not deviate from this plan under any circumstances!

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Thank you.

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