Publication Writing

Types of Journal Medical Writing

- Editorial
- Original Article
- Review Articles
- Short Papers
- Case Reports
- Letter to Editor
- Personal Views
- Special Communication

The basics of writing a paper

1. Before you begin

- What do I have to say?
- Is it worth saying?
- What is the right format for the message?
- What is the audience for the message?
- Where should I publish the message?
- How can I best use paper and the web?

Structure of scientific paper

- The structure of a research paper comprises three core parts, namely introduction, body and discussion
- The progression of the thematic scope of a paper within these parts typically follows a pattern called the ‘Hourglass Model’
- The introduction leads the reader from general motivations and a broad subject to a particular research question that is tackled in the body of the paper

Structure of scientific paper (contd)

- The body of the paper stays within a tight thematic scope and describes the research methods and results in detail
- Eventually, the discussion part aims to draw general conclusions and present implications from the results

IMRaD- Introduction, Methods, Results, and Discussion

- Introduction--Why did I do it?
- Methods--What did I do?
- Results--What did I find?
- Discussion-- What might it mean? *What is our overall finding? What are the strengths and weaknesses of the study in relation to other studies? Why might we have got different results? What might the study mean, particularly for clinicians or policy makers? What questions remain unanswered and what next?*

IMRAD: the rest

- Title
- Author information
- Acknowledgments
- Abstract
- References (what, how many, self-citation, journal self-citation; in-press, in-print; forthcoming; theses, personal comm.)
- Tables

IMRAD: the rest

- Figures
- Legends
- Word count
- Keywords
- Author contribution (what qualifies, ghost authors, honorary authors)
- Conflict of interest (sponsors, agency information)
- Trials registration, statements such as the CONSORT
- Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication
- http://www.icmje.org/

IMRaD (Introduction)

- Why did we start?
- What has gone before - ? A systematic review
- Why was this study needed?
- Be sure that readers understand the importance of the study-but don’t overdo it
- Don’t try to show readers that you have read everything

Title

- The title is the part of a paper that is read the most;
- It is usually read first and most often, it is the only thing that is read
- Electronic indexing services rely heavily on the accuracy of the title to allow users to find papers that are relevant to their research
- Day (1983) defines a good title “as the fewest possible words that adequately describe the contents of the paper”
- When the title is too long, it usually contains too many waste words such as ‘Investigations on’ at the beginning
- On the other hand, titles that are too short often use words which are too general

Title

- Should be specific But comprehensive
- Short But sufficiently descriptive
- No abbreviations
- Should be easy To catalogue

A strong title orients readers to your area of work

Effects of Humidity on the Growth of Avalanches

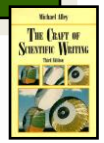
Effects of Humidity on the Growth of Electron Avalanches in Electrical Gas Discharges

A strong title also separates your work from everyone else's work

Studies on the Electrodeposition of Lead on Copper

→

Effects of Rhodamine-B on the Electrodeposition of Lead on Copper



Types of title

- **Indicative titles** indicate the subject matter of a paper but give no indication of any results obtained or conclusions drawn e.g. *The effectiveness of bed nets in controlling mosquitoes at different seasons of the year.*

- **Informative titles** give an indication of results achieved and conclusions drawn as well as the subject matter of the paper e.g. *Bed nets control mosquitoes most effectively when used in the rainy season.*

- **Question-type titles** obviously asks a question. e.g. *When are bed nets most effective when used to control mosquitoes?*

- **Main-subtitle (series) type** – not liked by because if they accept the first paper they will be duty bound to accept sequels. e.g. *The effect of bed nets on mosquitoes: 1.Their effectiveness when used only in the rainy season.*

Abstract

- A one-paragraph summary of the whole paper
- Abstracts have become increasingly important, as electronic publication databases use them as the primary means of finding research reports in a certain subject area today (Koopman, 1997)
- Hence, everything of relevance to potential readers should be in the abstract, everything else not

Purposes of the Abstract

- Provides an overview of the article
- Helps reader decide whether to read the article (i.e. is this important to me?)
- Directs readers' attention to the highlights of the article
- Used by journals to assign reviewers
- Used by abstracting and information services to index and retrieve articles
- Used by translation services for foreign readers

Characteristics of the Abstract

- Accurate, coherent, and readable
- Concise, specific, and selective
- Complete and internally consistent
- No references
- No tables or figures
- No or few abbreviations (must be defined)
- Conclusions should be based on data/info presented within the abstract
- Self-contained, i.e. stand alone

What Abstracts Are NOT

- Not substitutes for the article and should not be cited as references
- Not a summary of the entire article; should present main finding
- Do not contain enough information for a critical evaluation of the research
- Not fully peer-reviewed; up to 60% are never followed by a complete scientific article

Structured abstract

- Objective
- Design
- Setting
- Patients and methods
- Results
- Conclusions
- Key word

The Writing Process

- Read paper carefully
- Mark key words and sentences (look for the why, how, what and so what)
- List all marked material
- Edit to condense
- Refine to reflect desired style

Introduction

Existing state of knowledge

Gaps in knowledge which research will fill.

State what you Intend to do

Give pertinent references

It does not

Review the history of the subject

Does not identify all the other gaps in knowledge

Don not include methods, results and discussion

Methods

- What Subjects/patients/animals/specimens techniques were used?
- Reason for selecting the experimental design
- Statistical methods used for analysis
- Patient / Animals / Specimens
  - Numbers
  - How are they grouped
  - (cases /controls)
  - Criteria
  - Informed consent obtained

Methods

- Give enough details for readers to assess the validity of the results, and repeat the study
- If standard techniques is used, give appropriate reference,any modifications should be clearly explained
- If drug trial- clear description of trial
- Statistics- Clearly mention the statistical methods used for appropriate verification of reported results

Results

- Communication of facts, measurements, and observations gathered by the author
- Stick to what is relevant
- Be sure to include basic descriptive data
- The text should tell the story
- The tables give the evidence
- The figures illustrate the highlights
- Do not duplicate illustrations
- Don’t include just percentages or p values
- Include confidence intervals
- Avoid beginning to discuss the implications or strengths and weaknesses of your study

Discussion

- Summarise main results in the beginning
- Mention only relevant past results
- State message of the article in final para
- Also cover
  - Strengths and weaknesses of the study
  - Strengths and weaknesses in relation to other studies, discussing particularly any differences in results
  - Meaning of the study: possible mechanisms and implications for clinicians or policymakers
  - Unanswered questions and future research

Acknowledgements (Silent partners)

“We wish to thank” - all those who deserve recognition for their contribution but who have not made a significant intellectual contribution and are therefore not included as authors (Colleagues,Institutions, Organizations providing financial help, laboratory and secretarial staff)

References

- **Don't** bury me with references (~ 30 is a good target)
- **Don't** cite 5 randomized trials when a single systematic review or meta-analysis will suffice
- **Don't** use other review articles or monographs – leads to "medical gossip"
- **Do** use original research, meta-analyses, evidence-based guidelines, and systematic reviews.

Reference citation styles

- **APA.** APA is an author/date based style. This means emphasis is placed on the author and the date of a piece of work to uniquely identify it.
- **MLA.(** Modern Language Association**)** is most often applied by the arts and humanities, particularly in the USA. It is arguably the most well used of all of the citation styles.
- **Harvard.** Harvard is very similar to APA. Where APA is primarily used in the USA, Harvard referencing is the most well used referencing style in the UK and Australia, and is encouraged for use with the humanities.
- **Vancouver.** The Vancouver system is mainly used in medical and scientific papers.
- **Chicago** and **Turabian.** These are two separate styles but are very similar, just like Harvard and APA. These are widely used for history and economics.

Referance Generator

- https://www.ukessays.com/referencing/vancouver/generator/
- We have free reference generators for all styles
- Following are some examples of the Vancouver style

References

1. **Standard journal article**

   Vega K., Pina I., Krevisky B. Heart transplantation is associated with an increased risk for pancreaticobiliary disease. Ann Intern Med 1996 Jun 1: 124(11): 980-3

2. **Books and other monographs**

   Phillips SJ, Whisnant JP. Hypertension and stroke. In: Laragh JH, Bremier BM, editors. Hypertension: pathophysiology, diagnosis, and management. 2nd ed. New York: Raven Press; 1995. P.465-78.

References

3. **Disertation**

   Kaplan SJ. Post-hospital home health care: the elderly's access and untilizaiion (dissertation]. St. Louis (MO): Washington Univ: 1995.

4. **Unpublished material**

   Leshner AL. Molecular mechanisms of cocaine. N Engl J Med. In press 1996.

5. **Electronic material**

   Morse SS. Factors in the emergence of infectious disease. Emerg Inftect Dis [serial online] 1995 Jan-Mar (cited 1996 Jun 5]; 1(1): [24 screens]. Available from URL: http:/www.cdc.gov/ncdod/EID/eid.htm

References

- Use proper format:
  - Authors. Title. Journal Year; Volume: Page range.
  - Ebell MH, Barry HC. POEMs in the medical literature. J Fam Pract 1998; 43: 341-4.
  - For Web citations include URL and date last cited.

- See author guide at www.aafp.org/afp for details

Tables

- Do NOT use tabs and spaces in a table. EVER. It is impossible to reformat.
- Use the built-in Table creation feature in MS Word:
  - Table | Insert | Table
  - Tell it how many rows and columns
  - Can always change rows and columns later.

Figures

- Do not embed figures in the manuscript
- Do not create figures using the MS Word drawing tools

- Do create them using a Paint or Paintshop program
- Photos and graphics must be very high resolution

- Follow the author instructions!!!

- Be concise.
- Write clearly and in a conversational tone
- Use active voice

- *Remember, if it doesn't sound like something you could say in the hall to a colleague or in a lecture, you probably shouldn't write it*.

Additional manuscript structure related considerations:

- Trials registration, statements such as CONSORT
- Sponsorship
- Disclosure of (non)Conflicts of Interest
- Uniform Requirements for Manuscripts Submitted to Biomedical Journals: Writing and Editing for Biomedical Publication
- http://www.icmje.org/
- Electronic publication ⇔ in-print
- Pre-publication – allowed or not?
- Paper ⇔ Conference proceedings

Choosing the journal

- Journals are of different types (based on medium)

1. Print Journals
2. Online Journals

•Journals are of different types (based on specialty)

1. General Science
2. Specialty Journals

What constitutes a good journal?

- Impact factor – average number of times published papers are cited up to two years after publication.

- Immediacy Index – average number of times published papers are cited during year of publication.

Journal Citation Report

Journal	Impactfactor	Immediacy Index
Nature	30.979	06.679
Science	29.160	5.589
Economics & Human Biol	2.630	0.838
Economics of Edu Rev	1.260	0.842
Am. J Math	0.962	0.122
Annals maths	1.505	0.564

Preparing Poster Presentations

Why Posters?

- An opportunity to effectively share research results and engage in scientific dialog with colleagues
- Good posters can attract attention of peer researchers during conferences. Act as a conversation starter - they engage people in discussion about your work.
- Posters act as a medium to advertise your work;
- They enable you to summarise your work – and to get your main points across to a larger audience
- Feedback received can help in refining your research and preparing it for publication

Thinking about your poster

- Key questions need to be answered before you get to the design stage.
- These are:
  - Who is your audience?
    - Professionals, academics, the general public – the language used and messages given out need to meet the needs of your audience
  - What is your hook?
    - Catchy titles provide the feature that may draw your audience in to peruse your poster. Is the message clearly stated and will it capture the attention of your audience?
  - What is the purpose of your poster?
    - Consider what messages you wish to communicate and the audience receiving the messages. Remember you need to present a coherent snapshot of your research
  - What are the guidelines for your poster?
    - Refer to your brief
  - What is your message?
    - Effective posters deliver clear messages, content is highly visual

Planning your poster

- An effective poster should have following features:
  - Legible from a distance of about six feet away,
  - Use a title that captures the attention of audience, and is readable from about 15 - 20 feet away.
  - Have enough ‘white’ space which aids readability,
- Use of bullets, numbering, and headlines make it easy to read
- Effective use of graphics, colour and fonts
- Consider using original/owned photos or source photos which are “royalty free” to avoid any potential copyright issues
- Consistent and clean layout
- Includes acknowledgments, name and institutional affiliation

Things to think about

- People read posters from left to right and top to bottom – consider your layout – portrait/landscape. Be guided by your conference brief
- Using too much jargon may confuse your audience, unless they are specialists in your field and already know the jargon
- What message will readers take home with them? – what will they remember about your work?
- Colour schemes – think about the tones and hues, avoid large swathes of garish colours
- Word count – a typical poster will have between 300 – 500 words, audience dependent (Anon, n. d)

Cont'd...

- Font – Avoid using more than two different fonts. Choose a font such as Arial
- Use a good balance of text, pictures, charts and graphics. The text should support your images and vice versa
- The size of your poster and the orientation you will use
- Line spacing and text justification – left justification maybe easier to read

Cont'd...

- Getting it printed – matt/glossy to laminate or not to laminate – a matt finish reduces glare. Laminated posters travel better so this might be worth considering – refer to conference brief
- At the printers -When arranging to get your poster printed it might be useful to find out if they print use RGB (red green and black) or CMYK (cyan magenta (purplish pink) yellow black – four colour printing) as this can affect your final print version of your poster. e.g. purple may appear as more of a pink hue than true purple
- Most PCs are set to RGB as default – custom colours

Design tips

- Plan your poster – preparation is key
  - Consider using a sheet of flipchart paper during preliminary planning.
- Do not clutter the poster
- Be creative and proofread

Design tips (contd)

- Think outside of the box – what images best capture the messages you are attempting to give out?
- Use arrows, number, boxes, headings to guide readers through your poster
- Do not forget to include you title, names, supervisor details (if relevant), company logo (where necessary/relevant) any other affiliations and possibly your email address. Ideally, you want people to be able to contact you about your research

Cont’d...

- What to include?
- Think about - 'Introduction', 'Methods', 'Results' and 'Conclusions‘, ‘References’. Be guided by your conference brief
- Use indents, justification and a variety of formatting to highlight your main points e.g. bold titles
- Identify the most innovative, exciting and relevant aspects of your work to present in your poster

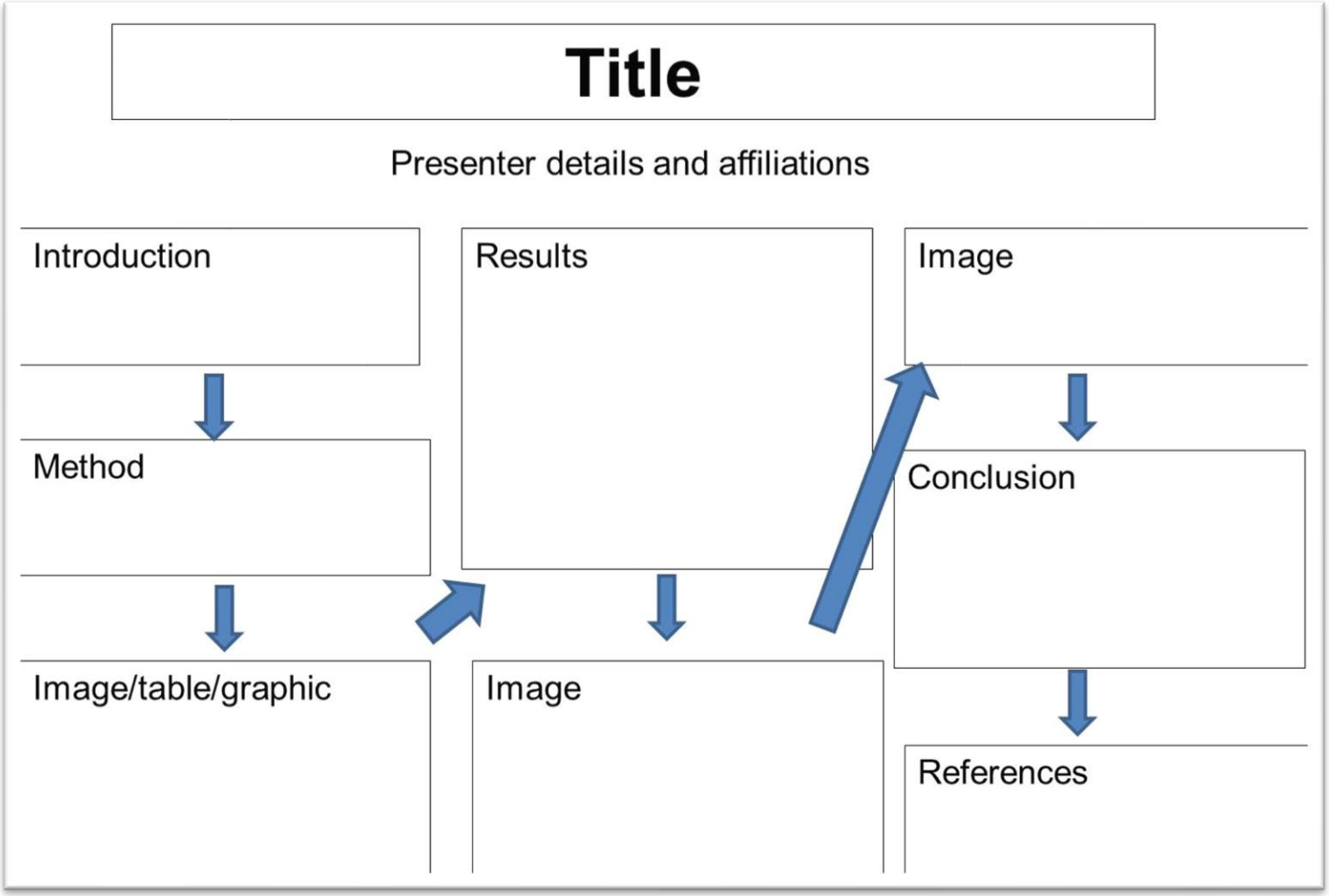
What software can I use to make a poster?

- PowerPoint: A popular, easy-to-use option. It is part of Microsoft Office package
- Adobe Illustrator, Photoshop and InDesign: Feature-rich professional software that is good for posters including lots of high-resolution images, but they are more complex and expensive.
- Open Source Alternatives: OpenOffice in the free alternative to MS Office (Impress is its PowerPoint alternative). Inkscape and Gimp are alternatives to Adobe products. For charts and diagrams try Gliffy or Lovely Charts.

Choose the right kind of chart

Chart type	Best use
Bar charts	Show comparisons
Horizontal bars	Only used to show time
Line charts	Illustrate trends
Pie charts	Relationship to whole – big picture (%)
Text	The last resort

Some Sample Templates


Title
Presenter details and affiliations
Introduction
Method
Image/table/graphic
Results
Image
Image
Conclusion
References

This is the Title of Your Presentation

Your Name, Title, Affiliation

Introduction and Objectives

Lay in your introduction

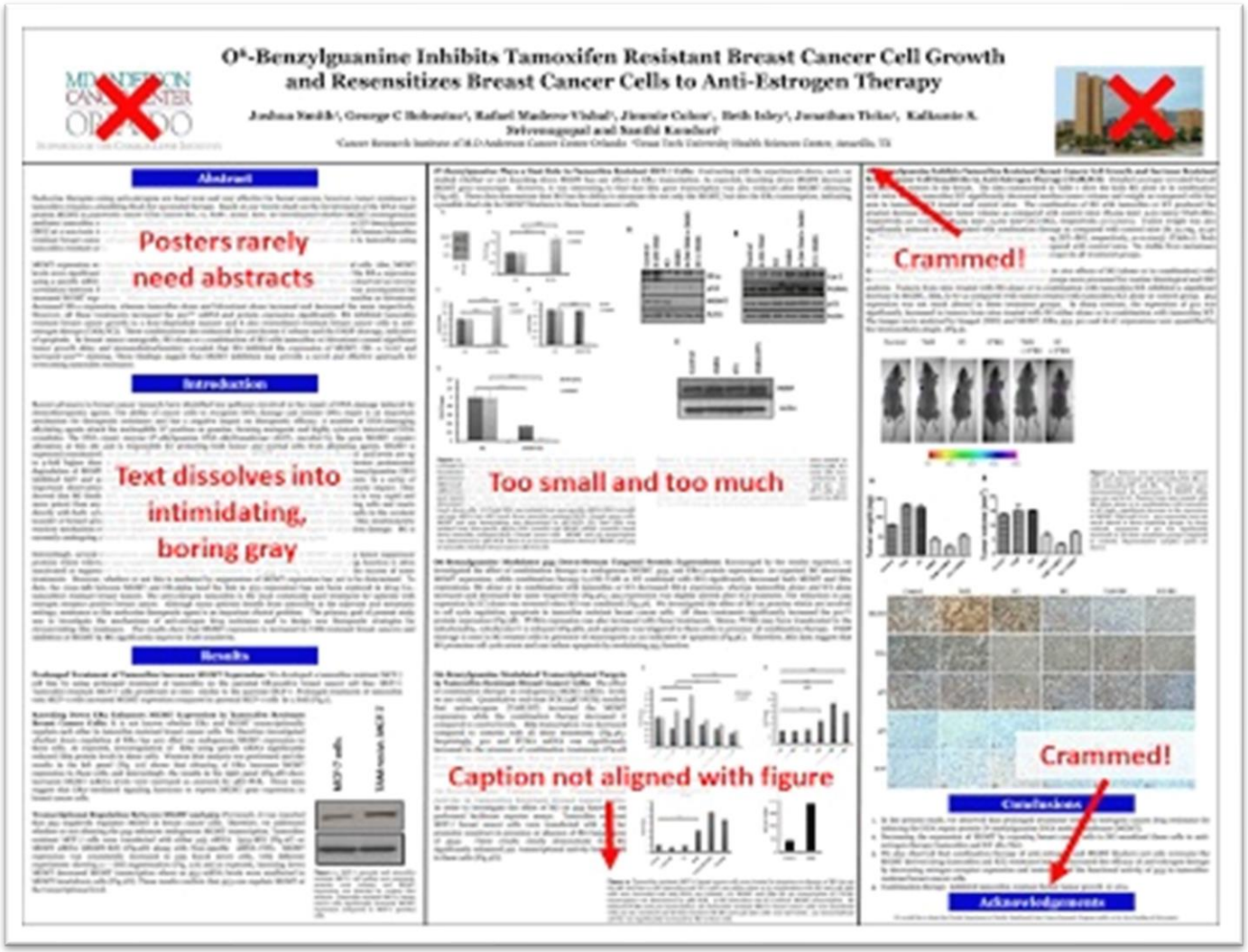
x
x
x
x
x
x
x
x
x
x

xxxx

Good poster

Tips for Designing Effective Presentations
A poster with the main title in 1½" sans serif
Get the audience's attention and communicate your message quickly and succinctly.
Choosing and Using Color
Developing a Layout
Planning
Selecting Fonts and Using Text
Using Images
Judges Checklist
Viewers reading this line demonstrate the poster's success!

Poor poster


O⁶-Benzylguanine Inhibits Tamoxifen Resistant Breast Cancer Cell Growth and Resensitizes Breast Cancer Cells to Anti-Estrogen Therapy
Abstract
Posters rarely need abstracts
Introduction
Text dissolves into intimidating, boring gray
Results
Too small and too much
Caption not aligned with figure
Crammed!
Crammed!
Conclusions
Acknowledgements

Presenting the Poster

- Use the poster as a visual aid
  - Refrain from reading it
- Use the graphics to support your points when telling your story
- Prepare a 2 and 5 minute tour of the poster