

## **Using This Template (clinical studies – general)**

We strongly encourage authors of papers reporting clinical studies other than trials, systematic reviews, or meta-analyses to structure their articles as described below. Authors of papers reporting trials, systematic reviews, or meta-analyses should use the specific templates for those article types.

Although we have no firm length restrictions for the entire manuscript or individual sections, we urge authors to present and discuss their findings concisely.

The template consists of some headings that will be generally speaking be essential along with body text explaining what to include in each section. You should overwrite (or copy and paste) the body text with the corresponding section text for your article. Obviously, you should add other headings as needed.

### **Title (150 characters or fewer)**

The title should be specific to the study yet concise, and should allow sensitive and specific electronic retrieval of the article. It should be comprehensible to readers outside your field. Avoid specialist abbreviations if possible. Present this in title case, capitalizing all words except for prepositions, articles, and conjunctions. Titles should also include relevant information about the design of the study, e.g.: Television watching and family dysfunction in medical journal editors: a case-control study.

### **Authors and Affiliations**

Provide the first names or initials (if used), middle names or initials (if used), surnames, and affiliations—department, university or organization, city, state/province (if applicable), and country—for all authors. One of the authors should be designated as the corresponding author. If the article has been submitted on behalf of a consortium, all author names and affiliations should be listed at the end of the article.

### **Abstract**

The abstract succinctly introduces the paper. We advise that it should not exceed 250–300 words. The abstract is conceptually divided into three sections. Background: include here a statement of the main research question. Methodology/Principal Findings. include here the techniques used without going into methodological detail, together with a summary of the most important findings with key numerical results given, with measures of error and not just p values. Conclusions/Significance: concisely summarize the study's implications. Please do not include any citations in the abstract. Avoid specialist abbreviations if possible.

## **Introduction**

The introduction should put the focus of the manuscript into a broader context. As you compose the introduction, think of readers who are not experts in this field. Include a brief review of the key literature. If there are relevant controversies or disagreements in the field, they should be mentioned so that a non-expert reader can delve into these issues further. The introduction should conclude with a brief statement of the overall aim of the experiments and a comment about whether that aim was achieved.

## **Methods**

Information in the Methods section describing selection and description of participants, and statistical methods, should conform to the criteria outlined by the Uniform Requirements, as described here: <http://www.icmje.org/index.html#manuscript>. We strongly recommend a structured Methods section which includes but is not limited to the following subsections:

### **Objectives**

Include here a description of the specific objectives and hypotheses being tested in this study.

### **Participants**

Describe the eligibility criteria for participants and the settings and locations where the data were collected.

### **Description of Procedures or Investigations undertaken.**

This section should provide enough detail to allow full replication of the study by suitably skilled investigators. If you are describing laboratory techniques, protocols for new techniques should be included, but well-established protocols may simply be referenced. We encourage authors to submit, as separate supporting information files, detailed protocols for newer or less well-established techniques. These protocols are published online only, but are linked to the article and are fully searchable.

### **Ethics**

This section should declare that individual participants in this study gave written informed consent; if this form of consent was not possible, that should be explained here. The section should also state which Institutional Review Boards or Ethics Committees approved the study. If detailed descriptions, data, or images from individual patients are included in the paper, authors must obtain informed consent from those individuals to

publication of the paper using the form online at [http://journals.plos.org/plos\\_consent\\_form.pdf](http://journals.plos.org/plos_consent_form.pdf) and include a statement to that effect here.

### **Statistical methods (if applicable)**

Describe the statistical methods used to compare groups, as well as methods for additional analyses, such as subgroup analyses and adjusted analyses.

This section should also conform to the criteria outlined by the Uniform Requirements, as follows: “Describe statistical methods with enough detail to enable a knowledgeable reader with access to the original data to verify the reported results. When possible, quantify findings and present them with appropriate indicators of measurement error or uncertainty (such as confidence intervals). Avoid relying solely on statistical hypothesis testing, such as the use of p values, which fails to convey important quantitative information. Discuss the eligibility of experimental subjects. Give details about randomization. Describe the methods for and success of any blinding of observations. Report complications of treatment. Give numbers of observations. Report losses to observation (such as dropouts from a clinical trial). References for the design of the study and statistical methods should be to standard works when possible (with pages stated) rather than to papers in which the designs or methods were originally reported. Specify any general-use computer programs used.”

## **Results**

The results section should provide details of all of the experiments that are required to support the conclusions of the paper. There is no specific word limit for this section. Large datasets, including raw data, should be submitted as supporting information files; these files are published online alongside the accepted article. We advise that the results section be written in past tense. This section may be divided into subsections, each with a concise subheading.

## **Discussion**

Authors should begin the discussion with a concise summary of the main findings. The discussion should then have an assessment of both the internal and external validity of the study. Authors should include a general interpretation of the results in the context of current evidence and which is not restricted to evidence which supports the findings of the present study. The discussion should end with a suggestion of what further research should be done. The Discussion should include the following subsection:

### **Limitations**

What are the key limitations of the study, taking into account study hypotheses, sources of potential bias or imprecision, and the dangers associated with multiplicity of analyses and outcomes?

## Acknowledgments

People who contributed to the work but do not fit criteria for authorship should be listed in the Acknowledgments, along with their contributions. It is the authors' responsibility to ensure that anyone named in the acknowledgments agrees to being so named. Details of the funding sources that have supported the work should be confined to the funding declaration provided on submission. Do not include them in the acknowledgments.

## References

Only published or accepted manuscripts should be included in the reference list. Meetings abstracts, conference talks, or papers that have been submitted but not yet accepted should not be cited. Limited citation of unpublished work should be included in the body of the text only. All personal communications should be supported by a letter from the relevant authors.

PLoS uses the numbered citation (citation-sequence) method. References are listed and numbered in the order that they appear in the text. In the text, citations should be indicated by the reference number in brackets. Multiple citations within a single set of brackets should be separated by commas. Where there are more than three sequential citations, they should be given as a range. Example: "... has been shown previously [1,4-6,22]." Make sure the parts of the manuscript are in the correct order before ordering the citations.

Because all references will be linked electronically as much as possible to the papers they cite, proper formatting of the references is crucial. Please use the following style for the reference list:

### Published papers

Sanger F, Nicklen S, Coulson AR (1977) DNA sequencing with chain-terminating inhibitors. *Proc Natl Acad Sci U S A* 74: 5463–5467.

Please list the first five authors and then add "et al." if there are additional authors. Use of a DOI number to the full-text article is acceptable as an alternative to or in addition to traditional volume and page numbers.

### Accepted papers

Same as above, but "In press" appears instead of the page numbers. Example: *Adv Clin Path.* In press.

### Electronic journal articles

Loker WM (1996) "Campesinos" and the crisis of modernization in Latin America. *Jour Pol Ecol* 3. Available: [http://www.library.arizona.edu/ej/jpe/volume\\_3/ascii-lokeriso.txt](http://www.library.arizona.edu/ej/jpe/volume_3/ascii-lokeriso.txt) via the Internet. Accessed 11 Aug 1996.

### Books

Bates B (1992) *Bargaining for life: A social history of tuberculosis*. Philadelphia: University of Pennsylvania Press. 435 p.

### Book chapters

Hansen B (1991) New York City epidemics and history for the public. In: Harden VA, Risse GB, editors. *AIDS and the historian*. Bethesda: National Institute of Health. pp. 21–28.

## **Figure Legends**

The aim of the figure legend should be to describe the key messages of the figure, but the figure should also be discussed in the text. An enlarged version of the figure and its full legend will often be viewed in a separate window online, and it should be possible for a reader to understand the figure without switching back and forth between this window and the relevant parts of the text. Each legend should have a concise title of no more than 15 words. The legend itself should be succinct, while still explaining all symbols and abbreviations. Avoid lengthy descriptions of methods.

## **Tables**

The table title should be concise, no more than one sentence. The rest of the table legend and any footnotes should be placed below the table. Footnotes can be used to explain abbreviations.

Tables must be cell-based, such as would be produced in a spreadsheet program or in Microsoft Word. Do not provide tables as graphic objects. Tables must be no larger than one printed page (7inches x 9.5inches). Larger tables can be published as online supporting information. Bold and italics formatting will be preserved in the published version; however, more extensive formatting will be lost. Do not include color, shading, lines, rules, text boxes, tabs, returns, or pictures within the table.