От редакции

Уважаемые коллеги! В рамках XVI Конгресса педиатров России с международным участием «Актуальные проблемы педиатрии», проходившего 24–27 февраля 2012 г. в Москве, состоялся пре-конгресс мастер-класс для исследователей и авторов научных статей. Предлагаем вашему вниманию 2 лекции главного редактора Европейского респираторного журнала профессора J. Gerritsen о том, как правильно писать статьи и тезисы по проведенному научному исследованию для публикации в зарубежных изданиях.

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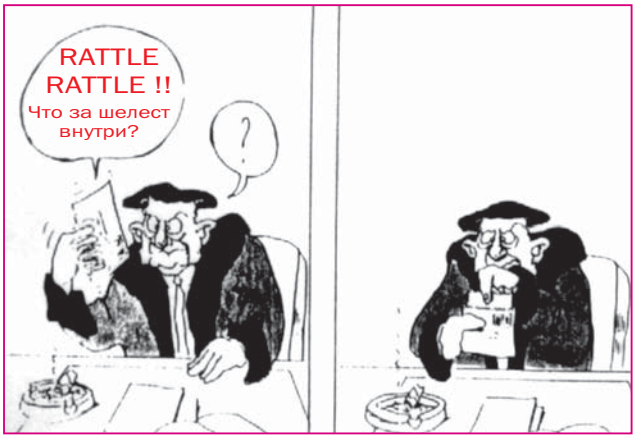
How to write an article about a study for a peer-reviewed journal

Pic. 1.

Outline

- nobody is born as a writer. It is a learning process and it is like piano playing it takes time and the pick up depends on the person
- writing an article takes time: start early and be well organized
- from the first sentence write the article in English, take lessons if not experienced
- the main author is in principle the first author, the principle investigators (PI's) are mostly situated on the second and last place. Discuss this before you start writing
- start with an outline of the article and make a time schedule i.e. time management.

Pic. 2.



Pic. 3.

Pic. 4.

First step in writing

- the first step is most times writing several abstracts for international conferences, and discuss the contents with colleagues and persons who are experienced. At presentation you can discuss it with international leaders in the field.
- the next step is writing an article for an international journal
- it is important to find somebody in your institute or from abroad who is experienced and can help you in writing, this is not per se your supervisor
- start with the results section of your article, analyse your data and make figures and/or tables

Pic. 5.

Function abstract

- an abstract is an appetizer, it makes scientists or clinicians curious to what follows
- it is as a rule the first step in presenting the challenging research you did
- if accepted it can open new areas and relationships in the scientific field
- unfortunately it does most times not lead to a publication

Pic. 6.

Realize

- that in human studies the project has to be reviewed by a Medical Ethics Committee and that they approved (in fact an international registration of this is needed)
- that a clinical trial has to be registered before the study starts
- that the methods are proper especially in retrospective studies
- that there is no conflict of interest in your study

Pic. 7.

Before writing

If you want to include a figure in the long term: right from the beginning of your project, think about experiments in terms of future papers and abstracts, especially the FIGURES.

For example, if you are doing immune-precipitation studies think about taking a picture when you load your samples on the gel, which you can use in the future for publication. This makes that you don't have to go back and redo it when you think about publishing.

For photomicrographs, think about the best magnifications and orientations to show the important features. Keep consistent backgrounds. Record the magnifications at the scale bars!

Pic. 8.

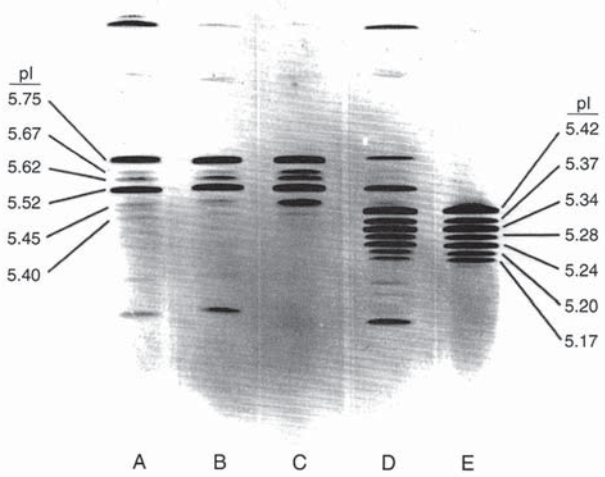


Figure 5. Well-prepared gel electrophoretograms. The fractions (here, isoelectric points, pI) are sharp and clear. Each gel is identified by a capital letter along the bottom of the photograph. Important fractions are identified by labels along the sides. Leader lines join each label to the appropriate fraction. The labels do not overwhelm the data.

Pic. 9.

It is easier to assemble all the data **BEFORE** writing an abstract or a manuscript, than during the process.

Realize:
you always have an overwhelming amount of data, therefor You have to make choices i.e. to focus on the most important data or on the scope of your manuscript

Pic. 10.

Short term

- produce and assemble draft **FIGURES** both for a manuscript and an abstract and lay them out in order on a table or desk.
- decide what are the key points that you need to make, and write them out. Focus on hypotheses that you tested.
- resolve **authorship** issues with your supervisor, avoid surprises, even then it can happen that there is discussion
- corresponding author is usually a senior author.
- have printed copies of key references at hand and not only the abstracts
- start a **database for references** e.g. ENDNOTE, REFERENCE MANAGER, etc. they have an in-built format database for references for the different journals

Pic. 11.

Writing an abstract

- In many ways this is the hardest kind of paper to write, but good to start with, even though it is the shortest.
- the abstract has to be concise and engaging, right from the opening sentence.
- the quality is decisive many times whether you go or not go to a congress
- the reviewers are very critical and the top experts in the field of your study
- it is very rewarding when an abstract is accepted

Pic. 12.

Starting out

- know your working style. For example, pencil and paper versus computer
- set a deadline and have a reward system!
- faced with a blank piece of paper, or an empty screen, it is best to just put something down and edit it afterwards rather than to expect to write a perfect sentence straight away
- In general it is easiest to start writing **the RESULTS** section and **MATERIALS and METHODS paragraph**
- just start writing these sections as if you were explaining the study to your colleagues. It also makes sense to have a presentation of your work for your colleagues and researchers in your institute. Start with general aspects and arguments and then go into the details so that you prepare the readers for what follows and the logic you are going to use

Pic. 13.

Let us start

- the first sentence in the introduction of a manuscript is most times a general statement about what follows. For example: «In children, a decrease in the prevalence of asthma has been published after many years of increase»
- The first sentence of an abstract should clearly introduce the topic of the paper and the problem to be solved
- to help the reader, relate the paper to other work they are familiar with
- recent studies of abstract writing indicate that it is important to summarize what has been achieved on this problem already, which suggests that the second sentence is the appropriate place to do this. But such studies don't tell you what to write next, and so most authors don't realize the third sentence should summarize the deficiencies of this existing research
- to solve this problem, we describe a technique that structures the entire abstract around a set of six sentences, each of which has a specific role, so that by the end of the first four sentences you have introduced the idea fully
- this structure then allows you to use the fifth sentence to elaborate a little on the research, explain how it works, and talk about the various ways that you have applied it, for example to teach generations of new graduate students how to write clearly
- this technique is helpful because it clarifies your thinking and leads to a final sentence that summarizes why your research matters

Pic. 14.

Title

- title must be short but not to short
  a. example: Prognosis of asthma: multi-centre study
  b. example: Follow-up of children with asthma on prognosis: multi-centre study
  c. example: long term follow-up of children aged 6 to 15 years for 25 years on the prognosis of asthma: multi-centre study
- it is **impossible** to present your whole study in the title

Pic. 15.

Authors & affiliations

- the order of the authors has been mentioned.
- it is important that all authors had a role in the study and try to omit authors who did not have a role at all. Sometimes very difficult to achieve.
- discuss the authors always with your PI
- Be sure whether titles of the persons have to be added for example MD, PHD, MSc, etc.
- the institutions should be mentioned in order of the authors.

Pic. 16.

TITLE PAGE

Original Article

Transforming Growth Factor beta-1 polymorphisms and asthma severity, airway inflammation and remodelling

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Total word count of the main text: 3420

Pic. 17.

Introduction

- **general topic**: the first part introduces the study
- comparison with other studies and what is known
- it should describe the goals, significance and background for the study. This is usually accomplished in one or two sentences that describe the general topic to be investigated and why it is important. Sometimes this is most easily done by relating something about the state of the field and why you did the experiments
- **specific question or relationship**: write one or two sentences describing the specific question you are addressing or relationship you are investigating with this investigation
- at the end of the manuscript you must give answers on the aims and questions
- reviewers and editors always look whether answers on questions are presented

Pic. 18.

Patients and methods

- **patients and methods**: ehe second section of the manuscript summarizes the methods used: how the study was designed and carried out
- in abstracts this usually takes about two sentences, but may be shorter or longer depending on the complexity of the study
- in abstracts: do not attempt to write a detailed procedure, just give a general idea of how you did it. In contrast in the manuscript you have to give detailed information about the patients and methods

Pic. 19.

Results

- **results in abstracts**: write one or two sentences explaining what you found out
- be as specific as possible
- state only your major findings of the study. These should relate to the objectives that you described in the introductory section of your abstract
- this section is variable in length, depending on the number and complexity of the findings, but is typically two to three sentences long

Pic. 20.

Results in manuscript

- results are different from data. **Data** are facts, obtained from experiments and observations
- **data** can be raw (for example all the phospholipid concentrations measured during an experiment), summarized (for example: mean and SD), or transformed (for example, per cent of control)
- **data** can rarely stand alone. The result i.e. meaning of the data must be stated
- **results** are general statements that interpret data (for example: propranolol given during normal ventilation decreased phospholipid concentrations)

Pic. 21.

Conclusions

- **conclusions**: the final part of the manuscript at the end of the discussion consists of one or two sentences giving your interpretation of the results and the overall significance of the study
- the conclusions must be answer(s) on the aims of the study
- the conclusions must be firm and not weak, like: further studies are necessary to find a relationship, etc.

Pic. 22.

Future directions

- the study can provide information which can be a suggestion for future research
- in an abstract references are as a rule not necessary and if they are needed than only one or two
- in an abstract figures can be informative but take a lot of space
- tables are most times a disaster in abstracts and should be omitted when possible

Pic. 23.

Additional guidelines

- verb tenses: the common practice is to express the work being described in the past tense: «The average concentration of E2 in surface waters was 35 ng/L,» and previously reported work is expressed in either the present or past tense: «E2 is known to increase the number of feminized fish in surface water»
- keep sentences short. 15–20 words is about right but shorter ones can be used for impact or emphasis. Check that each sentence makes sense and is not ambiguous

Pic. 24.

An example of a sentence that is too long:

- «Genes A, B, C and D and their antagonists are expressed at high levels in the thymus of the wild type embryos but in the heterozygous mutants they are lower and in the null mutant they are absent except in a small region where the latter are expressed at low levels»

Pic. 25.

Better is:

«Genes A, B, C and D, and their antagonists, are expressed at high levels in the thymus of wild type embryos. Transcription of all genes is lower in heterozygous mutants. By contrast, in homozygous null mutants no expression of any gene could be detected, except in a small region in which the genes encoding the antagonists are still fully active.»

Pic. 26.

Discussion

- the main function of the **Discussion** is to answer the question(s) posed in the Introduction, or aim of the study. I also explains how the results support the answers and how the answers fit in with existing knowledge on the topic
- the discussion starts with a short summary of the main findings of the study

Pic. 27.

Discussion cont.

- after the introductory sentence the findings are tested with findings of other published reports of previous findings of the same team
- one of the important sections is to explain the strength and weaknesses of the study
- in the last sentences the conclusions are presented, they must be an answer on the aim of the study
- finally is presented the vision on future research

Информация для педиатров