An Author's Guide to Scientific Publishing

**Do's and Don'ts when Writing a Scientific Article** 

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## **Guidelines for Authors**

- Please refer to the notes in the <u>author guidelines</u> how to prepare a manuscript (sometimes also called «Instructions to Authors», «Manuscript Guidelines», or «Manuscript Style Guide»). → Read them carefully.
- Guidelines varies from publisher to publisher even from journal to journal.
- Observe the instructions rendered in the guidelines: e.g. about the «Arrangement», that is the structure of the article, or e.g. the required statements such as «Conflicts of Interest».



### **Guidelines for Authors**

#### Arrangement

Title page: The first page of each paper should indicate the title, the authors' names, the institute where the work was conducted, and a short title for use as running head.

Full address: The exact postal address of the corresponding author complete with postal code must be given at the bottom of the title page. Please also supply phone and fax numbers, as well as e-mail address.

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Abstract: Each paper needs an abstract in English of not more than 150 words. The abstract is of utmost importance. It should contain the following information: purpose of the study, procedures, results, conclusions and message of the paper.

Footnotes: Avoid footnotes.

Tables and illustrations: Tables and illustrations (both numbered in Arabic numerals) should be sent in separate files. Tables require a heading and figures a legend, also in a separate file. Due to technical reasons, figures with a screen background should not be submitted. When possible, group several illustrations in one block for reproduction

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#### Types of Papers

Editorial
Original Paper
Review
New Technologies in Ophthalmology
Letter to the Editor
Euretina Lecture

**Reviews** are either invited, or may be submitted for consideration. Invited reviews, if accepted, are not subject to page charges. The recommended length is 6 printed pages (approx. 15 double-spaced manuscript pages).

Mini Reviews should contain an easy-to-read literature



# Language

- Use simple sentences
- Take care to express your ideas clearly
- Use simple standard English
- Follow the rules of grammar / tenses
- Use subject-specific conventions (numbers, international units of measurement, terminology)
- Ask an native English-speaking colleague or look for professional help
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## **Article Structure**

## Structure of a Research Article/Original Paper

- Title
- Authors and their contributions
- Abstract
- Keywords

- Main text
  - Introduction
  - Methods
- Results
  - Figures and Tables
  - Discussion/Conclusion

- Acknowledgements
- Funding Sources
- Disclosure Statement/Conflict of Interest
- Ethics Statement
- References
- Supplementary Data

## See Examples:

<u>The Very Long-Term Outcome of Radiosurgery for Classical Trigeminal Neuralgia</u> Régis et al., Stereotact Funct Neurosurg 2016;94:24-32 (DOI:10.1159/000443529)

Modelling the Cost-Effectiveness of Delaying End-Stage Renal Disease

De Vries et al., Nephron 2016;133:89-97 (DOI:10.1159/000446548)



# **Article Structure – Examples**

## Acknowledgments

We thank K.S.F. Colman and C.M. Toxopeus for kindly providing their data from some of the included previous studies done at our center. This work was supported by a Junior Scientific Masterclass grant of the University of Groningen to A.H. and to A.R.E.P.

Potgieser et al., Neurodegener Dis 2014;14:125–132 (DOI:10.1159/000363245)

### **Disclosure Statement** <u>www.icmje.org/conflicts-of-interest</u>

This study was funded by GSK Consumer Healthcare. M.N., P.J., and S.M. are employees of GSK Consumer Healthcare. D.T.Z., A.T.H., and F.L. have received compensation from GSK Consumer Healthcare as independent consultants.

Nehme et al., Caries Res 2016;50:62-70 (DOI:10.1159/000443187)

#### Statement of Ethics

www.publicationethics.org

This study was approved by the Ethics Committee of Fujian Medical University (No. 2011-006).

Quan Du et al., Dermatology 2016;232:150–155 (DOI: 10.1159/000444081)



## **Abstract**



- ✓ Within the word limit
- ✓ Correct format

# Structure your abstract in at least four sections:

- ✓ What problem did you focus on?
- ✓ How did you obtain your results?
- ✓ What results did you obtain?
- ✓ What are the implications of your findings?

Further example - see also next page

- Background too short/too long
- Not give the expected information
- Not stating the implications clearly
- Too many abbreviations
- Wrong format for the journal





#### Abstract

**Background:** Small aneurysms located at the anterior communicating artery carry significant procedural challenges due to a complex anatomy. Recent advances in endovascular technologies have expanded the use of coil embolization for small aneurysm treatment. However, limited reports describe their safety and efficacy profiles in very small anterior communicating artery aneurysms. Objective: We sought to review and report the immediate and long-term clinical as well as radiographic outcomes of consecutive patients with ruptured very small anterior communicating artery aneurysms treated with current endovascular coil embolization techniques. Methods: A prospectively maintained single-institution neuroendovascular database was accessed to identify consecutive cases of very small (<3 mm) ruptured anterior communicating artery aneurysms treated endovascularly between 2006 and 2013. **Results:** A total of 20 patients with ruptured very small (<3 mm) anterior communicating artery aneurysms were consecutively treated with coil embolization. The average maximum diameter was 2.66 ± 0.41 mm. Complete aneurysm occlusion was achieved for 17 (85%) aneurysms and near-complete aneurysm occlusion for 3 (15%) aneurysms. Intraoperative perforation was seen in 2 (10%) patients without any clinical worsening or need for an external ventricular drain. A thromboembolic event occurred in 1 (5 %) patient without clinical worsening or radiologic infarct. Median clinical follow-up was 12 ( $\pm$ 14.1) months and median imaging follow-up was 12 ( $\pm$ 18.4) months. *Conclusion:* This report describes the largest series of consecutive endovascular treatments of ruptured very small anterior communicating artery aneurysms. These findings suggest that coil embolization of very small aneurysms in this location can be performed with acceptable rates of complications and recanalization.

Asif et al. Intervent Neurol 2016;5:57-64 DOI:10.1159/000444662



## Introduction



- ✓ General background
- ✓ Previous research
- ✓ Problem your study addressed
- ✓ Hypothesis (focus of your paper)
- ✓ Aim

- Too much/too little background
- Not well organized
- Aim (hypothesis) not clear

## Example - see also next page:

Clinical Risk Factors and Plaque Characteristics Associated with New Development of Contralateral Stenosis in Patients Undergoing Carotid Endarterectomy



## Cerebrovascular Diseases

## Introduction

Carotid endarterectomy (CEA) reduces the risk of stroke for both symptomatic and subgroups of asymptomatic patients with high-grade carotid artery stenosis [1]. Nevertheless, this advantage may be attenuated by the development of restenosis. Restenosis is associated with a higher risk of recurrent symptoms, re-interventions and stroke and therefore hampers the benefit of CEA [2]. In addition, following CEA patients are prone to develop atherosclerosis at other sites. Development of contralateral stenosis is relatively common after CEA, exceeds the rate of ipsilateral restenosis, reduces the contralateral cerebrovascular reserve and may also affect clinical outcome [3,4,5,6,7]. It remains to be clarified if patients at risk for development of contralateral stenosis need follow-up and, if so, for what period of time. Risk factors that might contribute to the development of contralateral stenosis remain to be established [1,8]. Identifying patients at risk for developing contralateral stenosis would allow selective individualized follow-up after CEA. Next to clinical and demographic factors, it could be useful to establish which plaque characteristics are predictive for contralateral stenosis development. Potentially, information derived from the removed carotid atherosclerotic plaque individualizes treatment decisions by using non-invasive plague imaging [9].

Our objectives were to establish the incidence and risk factors - both clinically and based on plaque characteristics - for development of new contralateral stenosis or occlusion in mid-term follow-up after CEA.

Merckelbach et al. Cerebrovasc Dis 2016;42:122-130 DOI:10.1159/000445529



## Methods



- Study design
- ✓ Participants, parameters tested
- ✓ Instruments, devices, and procedures
- Ethic statements
- Statistical analysis
- ✓ Organize clearly
- ✓ Use subheadings

- Poorly organized (wrong order)
- Too little detail (study cannot be replicated)
- X Too much detail
  - Describes experiments whose results are not shown
  - Mentions results
  - Too long
- Material and manufacturer information wrong

## Example - see also next page:

Type-Specific Identification of Genital Human Papillomavirus Infection in Women with Cytological Abnormality





#### Materials and Methods

The study population included 200 women with a cytological diagnosis of ASC-US enrolled into the PDCCC from a public hospital network in Engativá, a public hospital affiliated with the health system of Bogotá. Participants consulted the program between March and October 2014 and agreed to voluntarily participate in this study by providing informed consent. Patients between 17 and 63 years of age were included in this study. Information on sociodemographic characteristics, medical history, and sexual and reproductive behavior was obtained at the time of the gynecological visit. Pregnant women or women diagnosed with other cervical diseases were excluded. The management protocol of the participants is shown in figure 1. This study was approved by the Ethics Committee of the Secretaría de Salud de Bogotá.

#### Collection of Cervical Samples and Personal Information

Prior to colposcopy, cervical samples were taken from each patient using a cytobrush and preserved in transport medium (COBAS® PCR Cell Collection Media; Roche Molecular Systems) following the manufacturer's instructions. The samples were stored at room temperature until processing at the Laboratory of Public Health, Bogotá.

#### HPV Detection and Typing

Type-specific identification of HPV genotypes was performed using the Linear Array technique (Roche Molecular Systems) according to the manufacturer's instructions. This technique allows the identification of 37 HPV genotypes, including 14 HR genotypes (i.e. 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68) and 23 LR viral types (i.e. 6, 11, 26, 40, 42, 53, 54, 55, 61, 62, 64, 67, 69, 70, 71, 72, 73, 81, 82, 83, 84, IS39, and CP6108), which are widely used in epidemiological studies. The Linear Array HPV test (Roche Molecular Systems) has 96% sensitivity and 99% specificity to detect DNA from HR HPV types (Linear Array HPV Genotyping Test®; Roche). Extraction, amplification, and hybridization steps allow identification of both the target viral genetic material and a fragment of the human β-globin gene, used as the internal control in sample processing.

#### Statistical Analysis

The sample size was calculated considering the number of cytological samples analyzed during the year 2012 and the expected prevalence of 4% due to an ASC-US diagnosis. Accordingly, it included 160 samples (95% reliability and 3% error). However, since the number of samples collected during the sampling period was large, the sample size was increased to 200 specimens. The HPV frequency distribution was analyzed, with data collected in a database developed in Microsoft Excel®. A bar graph showing single and multiple infections was created using the same software. Confidence intervals (CI) for the overall HPV prevalence and type-specific viral prevalences were calculated using Epi Info 3.5.1 software.

> Vargas et al., Acta Cytologica 2016;60:211-216 DOI: 10.1159/000446389



# Methods X

Too little detail (what, when, where)

## X Study population

Subjects with Crohn's disease were recruited in the outpatient clinic at the Hospital São Rafael, a tertiary referral center.



## ✓ Study Population

Subjects with Crohn's disease were recruited between January 2014 and December 2015 in the gastroenterology outpatient clinic at the Hospital São Rafael, a tertiary referral center in Salvador, Bahia, Brazil.



## Results



- ✓ Main findings that support your 'story'
- ✓ BUT be balanced and honest
- ✓ Well organized
- Supported by tables, graphs, and figures
- Clear and concise

- Includes the implications of your results
- X Repeats the subheading in the running text
- X Results section too long/wordy

## Example - see also next page:

Overexpression of AQP5 Was Detected in Axillary Sweat Glands of Primary Focal Hyperhidrosis Patients



## Dermatology

## Results

## Morphological Characteristics of Sweat Glands

Using hematoxylin-eosin-stained histological sections and ultrastructural examination of axillary sweat glands, we found there were no significant differences between the two groups in terms of morphological characteristics (fig. 2a-d). There is no significant difference between the P group (34.95  $\pm$  8.36) and C group (32.43  $\pm$  7.51; p > 0.05) in terms of the number of sweat coils in axillary sweat glands. However, the number of secretory granules in the P group was significantly higher than in the C group (fig. 2e, F).

## Expression of AQP5 in Axillary Sweat Glands

The immunohistochemical results showed that AQP5 was expressed predominantly on the basolateral plasma membrane and luminal membrane of epithelial cells in sweat gland tubules. By using Image Pro-plus 6.0 software compared with the integrated optical density of the two groups, the expression of AQP5 increased significantly in the P group (8.15  $\pm$  1.71) compared to the C group (3.50  $\pm$  1.02; p < 0.01; fig. 3a, b). The results of immunofluorescence histochemistry showed that the average absorbance of AQP5 increased significantly in the P group (1.27 ± 0.11) compared to the C group  $(1.11 \pm 0.12; p < 0.01; fig. 3c, d)$ . By using the Western blot analysis, the level of skin AQP5 in the P group (1.43 ± 0.35) was significantly higher than that in the C group  $(0.75 \pm 0.26; p < 0.01, fig. 4)$ .

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Du Q. et al. Dermatology 2016;232:150-155 DOI:10.1159/000444081



# Results X

Repeats the subheading in the running text

## **Results**

Correlation of Biomarkers with Age

In terms of the correlation of biomarkers with age, In the DS group,

the concentration of A $\beta$ 1–42 correlated negatively with age ( $r_s$ = -0.69, p = 0.015), while T-tau had a positive correlation with age ( $r_s$  = 0.68, p = 0.025; fig. 2a).



# Figures and Tables 🗸 🗡

- ✓ High resolution
- ✓ Simple and clear
- ✓ Neatly formatted
- ✓ Stand-alone legends/captions

- Poor formatting
  - Too many colors
  - Inconsistent font, point size, capitalization
  - No scale markers on micrographs
- Abbreviations not defined
- Too many images
- Duplication between text and figure/table

## Example

Exploring Alzheimer Molecular Pathology in Down's Syndrome Cerebrospinal Fluid



## **Discussion**



- ✓ Main Findings
- ✓ Do the data support your hypothesis or a different one?
- ✓ How do your findings compare with published findings?
- ✓ Limitations of your study
- ✓ Ideas for future research
- ✓ Conclusion (short; take-home message only!)

- X Repeats your results without discussion
- Poor organization/logical flow
- Implications not stated/overstated
- Conclusion too long

Example – see also next page:

<u>Different Seasonal Patterns in Song System Volume in Willow Tits and Great Tits</u>





#### Discussion

### Main Findings

Our results suggest seasonal stability in the size of the willow tit SCS, compared to seasonal plasticity in the size of HVC in the great tit. The lack of seasonal change in the willow tit SCS in the field is consistent with previous studies on the black-capped chickadee, a closely related species, for which either a reduced seasonal change or seasonal stability in the SCS have been reported [Phillmore et al., 2006, 2015; Smulders et al., 2006]. The ecology and behavior of willow tits and black-capped chickadees are very similar to each other. The finding of changes in HVC size in early spring in great tits is also consistent with previous findings on blue tits [Caro et al., 2005]. Our results give support to the hypothesis that the difference in seasonal plasticity between these two species is related to the differences in vocalizations made by the two groups of birds [Smulders et al., 2006]. These differences, in turn, relate to differences in winter social systems.

#### Functional Explanations of Seasonal Stability

Although we measured the size of the SCS nuclei, previous research has observed seasonal changes using alternative measures, including the number of neurons, neuronal density and the incorporation of new neurons into the nucleus [Tramontin and Brenowitz, 2000]. One explanation for our findings is that measuring volume was not sensitive enough to observe subtle seasonal changes in our sample of birds. A previous study of the black-capped chickadee did find small seasonal changes in the SCS, which were of a smaller magnitude than the changes observed in the majority of species [Phillmore et al., 2015]. Measuring neuron numbers or neuronal density in our samples could therefore yield results different from those obtained with our measure of volume.

Nevertheless, in most songbirds, SCS volumes do change seasonally. We will first



Longmoor et al. Brain Behav Evol 2016;87:265-274 DOI:10.1159/000447114

## References



- ✓ Two types:
  - In-text citations
  - Reference section
- ✓ Use a referencing program
- ✓ Format the Reference section for your target journal
- ✓ Cite while you write!

- Wrong formatting in the text
- Wrong formatting in the Reference section



## **Final Remarks**



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## 3. Contact Details

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