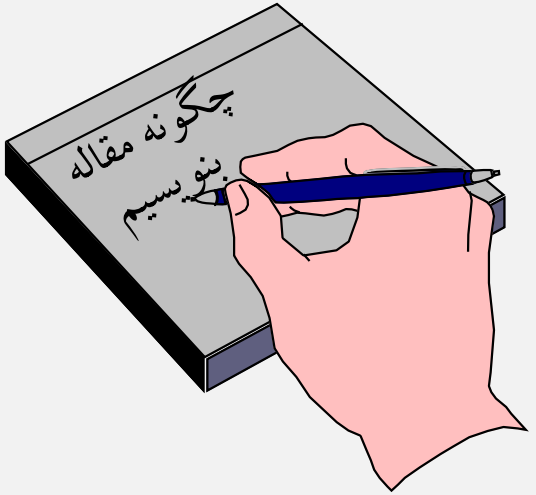
معاونت تحقیقات و فناوری
مرکز توسعه و هماهنگی پژوهش

دانشگاه علوم پزشکی و خدمات بهداشتی درمانی تبریز

چگونه مقاله بنویسیم؟



دکتر مرتضی قوجازاده

Ghojazadehm@tbzmed.ac.ir

Fundamentals of good medical writing

The scope of medical writing

Internal reports

Regulatory reports

Conference presentations
- abstract
- oral presentation
- poster

Journal articles
- original research paper
- review article
- case report
- letter to editor

Introductions and course agenda

The scope of medical writing

Qualities of effective medical writing

The writer's role

Assessing the audience

Identifying and placing key messages

Start with good science

Communalism - common ownership of scientific discoveries

Universalism - evaluation using universal, unbiased criteria

Disinterestedness - scientists should act selflessly

Organised scepticism - ideas tested and subjected to rigorous, structured scrutiny by peers

US sociologist Robert Merton b1910

Plan effectively

For original research:

have a clear research question

seek statistical advice

use the right study design

act ethically

keep an open mind and minimise bias

agree who will be principal investigator

agree who will be authors and contributors

agree to publish even negative results

Behave ethically

Research ethics – declaration of Helsinki, ICH

Publication ethics

- avoid misconduct
- protect patients' identities
- report clearly:
  - informed consent
  - any deviation from usual practice
  - full burden imposed on participants
  - total risks posed to participants or others
  - benefits to participants, patients, society

It's not always enough to state that the study was approved by an ethics committee or IRB

Protect patients' confidentiality

Beware identifiers:

age, sex, location

clinical details, test results

unusual personal story or context

photo (even if of a body part or clinical image)

Making articles more evidence-based

There are now many evidence based clinical guidelines and good systematic reviews, some of which may relate directly to your article. We would like you, therefore, to provide suitable evidence for key statements - the Cochrane Library or a medical librarian should be able to help you.

Guidelines

Try to indicate probabilities and levels of evidence:

- **Frequency information:** when giving a differential diagnosis for a particular presentation please provide population estimates of the frequency of each separate diagnosis
- **Diagnostic tests:** please give their false positive and false negative rates (or sensitivities and specificities) and, if possible, the causes of false positives and false negatives
- **Prognosis:** information on prognosis or natural history is often missing from medical articles but is vital for rational decision making. Wherever possible, give information about remission, progression and risks of disease
- **Treatments:** please mention the level of evidence on which main treatment recommendations are made. This can be kept relatively simple, using three levels:
  - No clear evidence: opinions based on clinical experience, anecdotal case studies, or descriptive articles; conflicting evidence from studies or poorly designed studies, even if randomised controlled trials
  - Suggestive evidence: evidence from cohort, case control, before-and-after studies; evidence from non-randomised experimental studies
  - Firm evidence: evidence from at least one properly designed randomised, controlled trial with adequate sample selection, sample size, and appropriate controls; with double or single blinding; and with clear outcome(s)

Please try to quantify the benefit of treatment, giving the relative risk reduction

Clear writing

Keep it simple: use short, familiar words

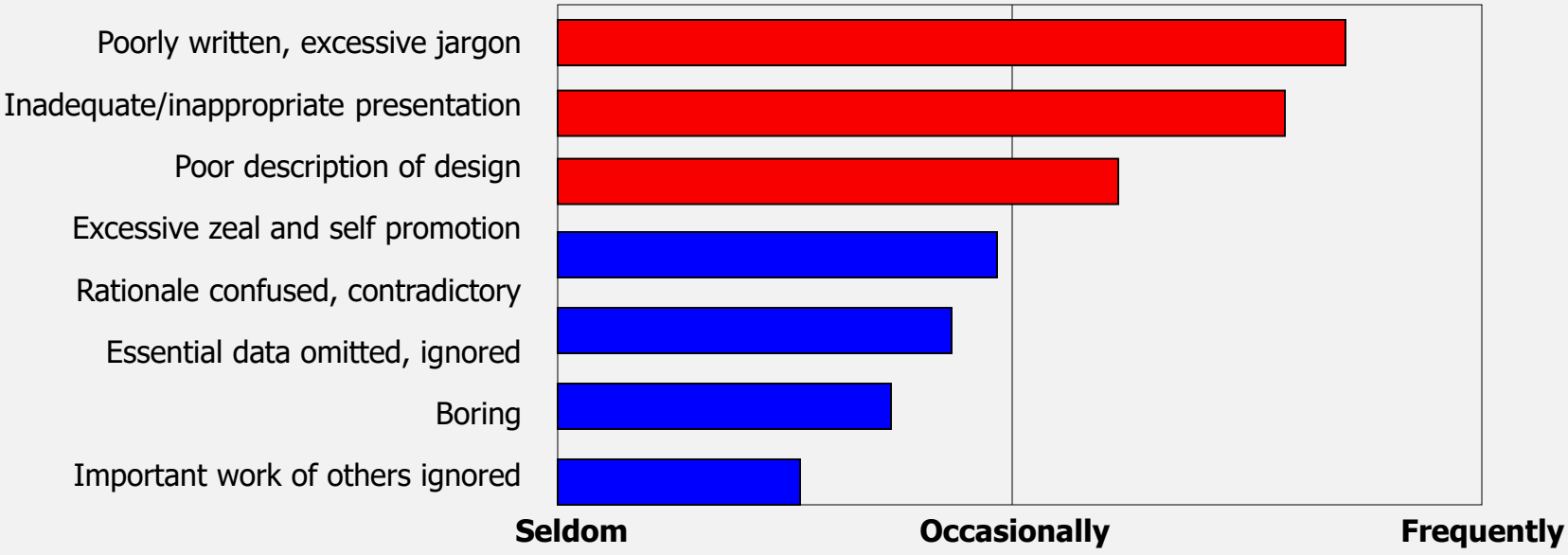
Avoid jargon and acronyms

Be specific

Be concrete, not abstract

Say what you mean and mean what you say

How frequently do editors encounter manuscript problems?



Byrne DW, Publishing Medical Research Papers, Williams and Wilkins, 1998

Introductions and course agenda

The scope of medical writing

Qualities of effective medical writing

The writer's role

Assessing the audience

Identifying and placing key messages

Who did what and why?

authors

contributors

competing interests

publication ethics

Authorship
Avoid guest- and ghost-writers

Authorship credit is based only on **substantial** contribution to:

- conception and design, **or** data analysis and interpretation
- drafting the article **or** revising it critically for important intellectual content
- **and** final approval of the version to be published

All these conditions must be met

Solely acquiring funding or collecting data does not justify authorship

All authors included on a paper must fulfil the criteria

No one who fulfils the criteria should be excluded

Contributorship

contributors who took part in planning, conducting, and reporting the work, including professional medical writers

guarantors (one or more) who accept full responsibility for the work and/or the conduct of the study, had access to the data, and controlled the decision to publish

researchers must decide among themselves the precise nature of each contribution

Who did what?

Helen C Eborall, *post-doctoral research fellow*1, **Simon J Griffin**, *programme leader*2, **A Toby Prevost**, *medical statistician*1, **Ann-Louise Kinmonth**, *professor of general practice*1, **David P French**, *reader in health behaviour interventions*3, **Stephen Sutton**, *professor of Behavioural science*1

Contributors: SS, DPF, ATP, A-LK, and SJG conceived and designed the original protocol. All authors were involved in amending the protocol. HCE coordinated the study throughout. Data entry was carried out by Wyman Dillon Ltd, Lewis Moore, and HCE. HCE cleaned the data and ran preliminary analysis with input from Tom Fanshawe. ATP analysed the data. ADDITION trial data were supplied by Lincoln Sargeant and Kate Williams. HCE wrote the first draft of the manuscript with ATP and SS. All authors contributed to subsequent and final drafts. HCE is guarantor of the paper.

Competing interests

A person has a competing interest when he or she has an attribute that is *invisible* to the reader or editor but which *may* affect his or her judgment

Always declare a competing interest, particularly one that would embarrass you if it came out afterwards

Misconduct

Fabrication: making up data or results and recording or reporting them

Falsification: manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record

Plagiarism: the appropriation of another person's ideas, processes, results, or words without giving appropriate credit

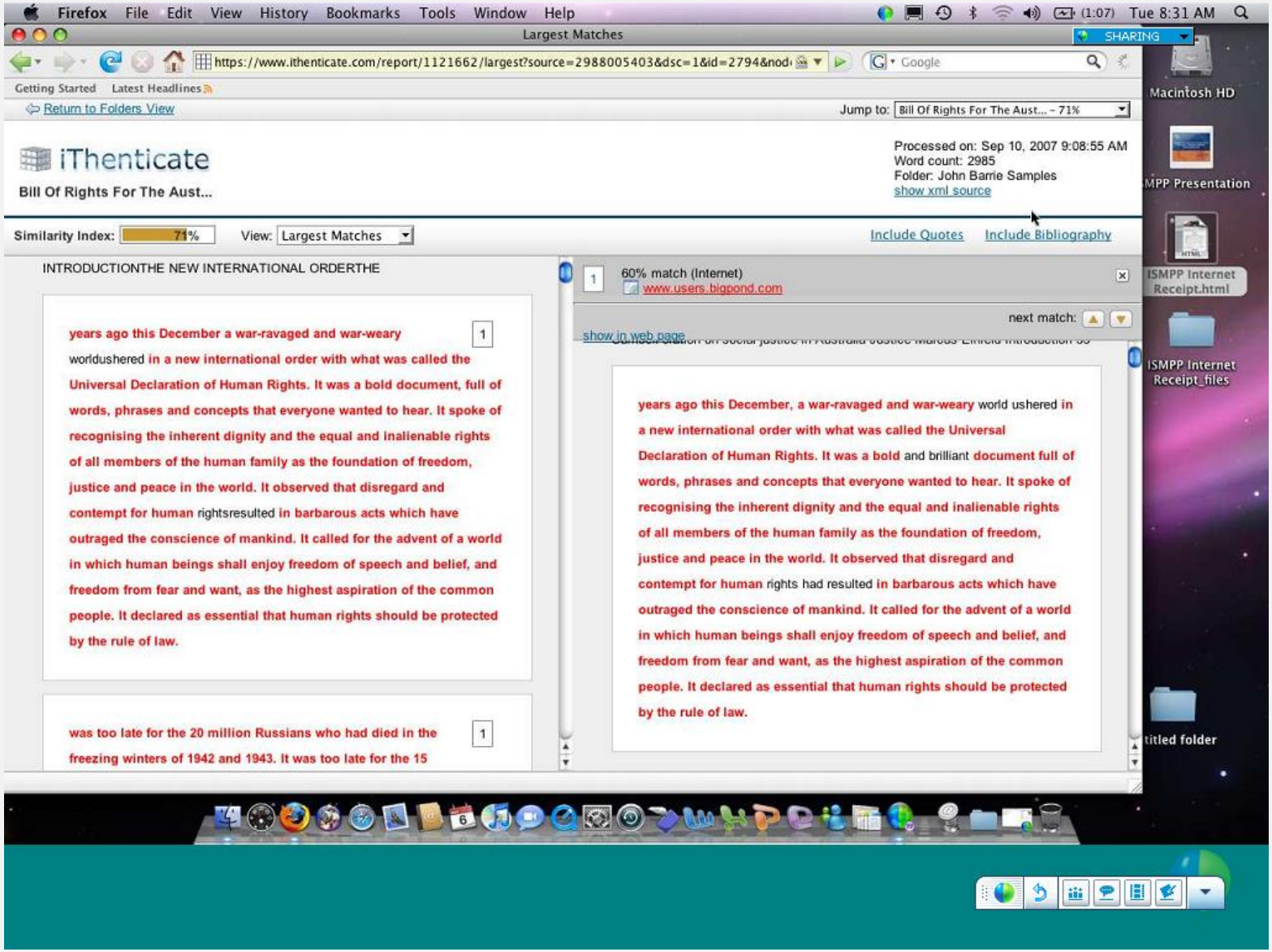
CrossCheck

web tool searches for overlapping content:

- prepublication
- postpublication

specialist search engine (iThenticate)
uses “text fingerprinting” and “string matching”

gets behind access controls (unlike free tools) to search >9 billion articles in CrossRef database


Firefox File Edit View History Bookmarks Tools Window Help
Tue 8:31 AM
Largest Matches
SHARING
https://www.ithenticate.com/report/1121662/largest?source=2988005403&dsc=1&id=2794&nod
Google
Getting Started Latest Headlines
Return to Folders View
Jump to: Bill Of Rights For The Aust... - 71%
iThenticate
Bill Of Rights For The Aust...
Processed on: Sep 10, 2007 9:08:55 AM
Word count: 2985
Folder: John Barrie Samples
show xml source
Similarity Index: 71%
View: Largest Matches
Include Quotes
Include Bibliography
INTRODUCTIONTHE NEW INTERNATIONAL ORDERTHE
years ago this December a war-ravaged and war-weary worldushered in a new international order with what was called the Universal Declaration of Human Rights. It was a bold document, full of words, phrases and concepts that everyone wanted to hear. It spoke of recognising the inherent dignity and the equal and inalienable rights of all members of the human family as the foundation of freedom, justice and peace in the world. It observed that disregard and contempt for human rightsresulted in barbarous acts which have outraged the conscience of mankind. It called for the advent of a world in which human beings shall enjoy freedom of speech and belief, and freedom from fear and want, as the highest aspiration of the common people. It declared as essential that human rights should be protected by the rule of law.
was too late for the 20 million Russians who had died in the freezing winters of 1942 and 1943. It was too late for the 15
60% match (Internet)
www.users.bigpond.com
next match:
show in web page
years ago this December, a war-ravaged and war-weary world ushered in a new international order with what was called the Universal Declaration of Human Rights. It was a bold and brilliant document full of words, phrases and concepts that everyone wanted to hear. It spoke of recognising the inherent dignity and the equal and inalienable rights of all members of the human family as the foundation of freedom, justice and peace in the world. It observed that disregard and contempt for human rights had resulted in barbarous acts which have outraged the conscience of mankind. It called for the advent of a world in which human beings shall enjoy freedom of speech and belief, and freedom from fear and want, as the highest aspiration of the common people. It declared as essential that human rights should be protected by the rule of law.
Macintosh HD
MPP Presentation
ISMPP Internet Receipt.html
ISMPP Internet Receipt_files
titled folder

Introductions and course agenda

The scope of medical writing

Qualities of effective medical writing

The writer's role

Assessing the audience

Identifying and placing key messages

Assessing the audience

Regulators

Markets

Conferences

Journals

Clinicians

How to please editors and peer reviewers

make sure the message is clear in the paper and abstract, not just in the cover letter

also send:

- extra materials eg CONSORT checklist
- details of any closely related papers
- previous peer review reports

communicate clearly and promptly

Introductions and course agenda

The scope of medical writing

Qualities of effective medical writing

The writer's role

Assessing the audience

Identifying and placing key messages

The message

For original research:

Introduction: why ask this research question?
Methods: what did I do?
Results: what did I find?
and
Discussion: what might it mean?

What makes a good research question?

FINER criteria

Feasible (answerable with a robust method)
Interesting
Novel
Ethical
Relevant

What makes a poor research question?

a question you don't care about, nor does anyone else

looking at routine clinical data and trying to think of a question

- the records will be biased and confounded
- they may lack the information you need to answer your question reliably, because they were collected for another reason

a fishing expedition/data dredging – gathering lots of information and hoping a question will emerge

- statistical analysis of many outcomes post-hoc may yield false positives (type I errors) or false negatives owing to lack of power (type II errors)

Spin: the dishonest drug trial

Not transparent (sponsors' roles, competing interests)

Compares intervention with one known to be inferior

- with ineffective dose of competitor intervention
- with so much of competitor intervention that ADRs likely

Uses multiple endpoints and reports selectively

Reports results only from favourable centres

Reports only favourable subgroup analyses

Presents only most impressive results — eg reduction in relative rather than absolute risk

Spin – it's not only in trials…

2006 BMJ paper found that industry supported systematic reviews were of lower quality than Cochrane reviews of the same drugs, were less transparently reported, had fewer reservations about methodological limitations, and always recommended the sponsor's drug without reservations

2007 BMJ paper found that sponsored meta-analyses on antihypertensive drugs were not associated with favourable results but had overgenerous conclusions

Industry-commissioned reviews

primary research articles create influence

peer review approves the science

journal brand endorses the message

better than drug reps

secondary articles spread influence

more likely to be read than research

especially if KOL authors

can alter policy

The honest review article

describe sources of information and methods of selection

ideally, cite Cochrane and other systematic reviews

clarify type and strength of evidence for key statements

- "A large well conducted randomised conducted trial finds..."
- "The findings of a small case series suggest..."

declare provenance, funding, and competing interests

How can journals help?

BMJ asks authors submitting or offering unsolicited reviews and editorials on potentially commercial topics three questions

- has anyone prompted or paid you to write this article?
- would/did a professional writer contribute to the article? to what extent?
- would the BMJ article be original, or would it be similar to articles submitted or published elsewhere?

And every published article declares competing interests and provenance