



Becoming the Editor's Pick and Key Strategies for Drafting Manuscripts for Publication.

Dr. Ximena Alvira

Dr. Ximena Alvira, MD, PhD October 4, 2023

# Clinical and Research Manager at Elseviemena Alvira Clinical Best Practice Council

### Education

- Medical Doctor (MD, MBBS, PhD)
- Doctor in Neuroscience
- Medical Writer

### Professional experience

- 6+ years of clinical practice in primary care and emergency medicine settings
- 9+ years in basic research
- 25+ years in medical writing
- 250+ masterclasses, workshops, and conferences on health research and scientific publishing worldwide
- Joined Elsevier in 2012 as Knowledge Representation Expert

# Agenda

- Main session Part 1:
  - What do editors look for and Recommendations on how to draft an original article (part I).
- Break
- Main Session part 2:
   Recommendations on how to draft an original article (part II).
- Q&A



## Objectives for today

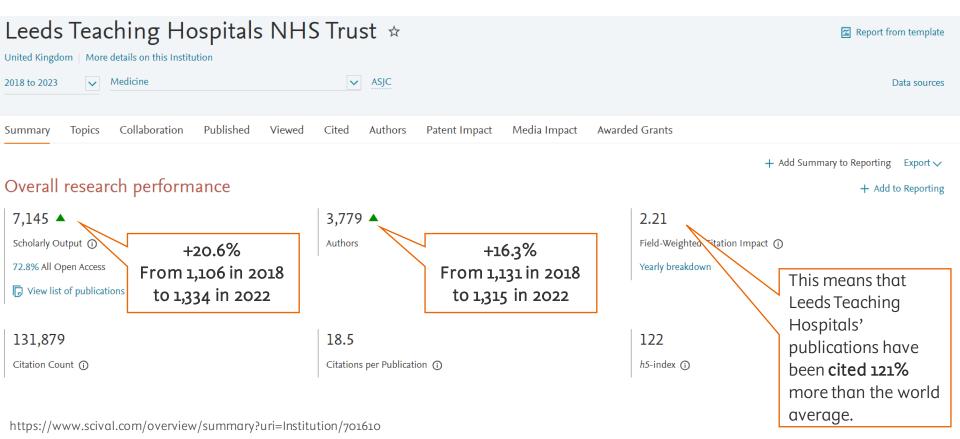
- Gain insights about the main reasons for manuscript rejection.
- Obtain practical recommendations on how to effectively write an original article and increase the chances of being published in a peer-reviewed journal.
- Identify **common pitfalls** in health research writing and learn strategies to avoid them.
- Foster the development of research that is ethical, transparent, and of high quality.

### Dr. Ximena Alvira

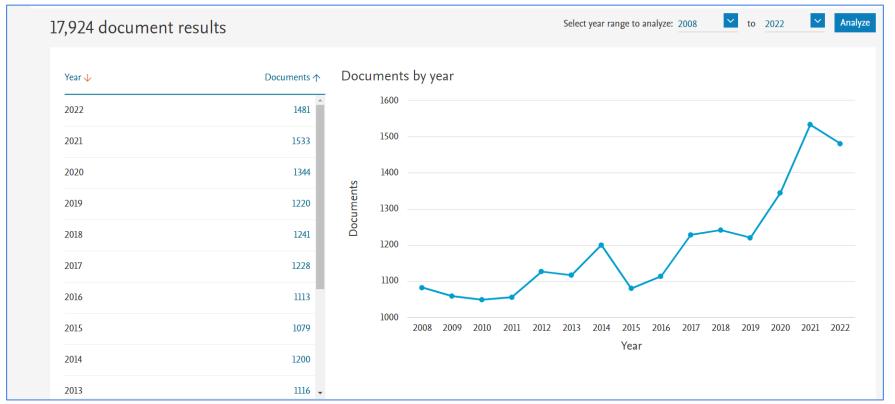


## Overview of scholarly output in Medicine (2018-2023)mena Alvira









① Metric guidance + Add to Reporting Export ✓ Shortcuts ✓



Leeds Teaching Hospitals NHS Trust

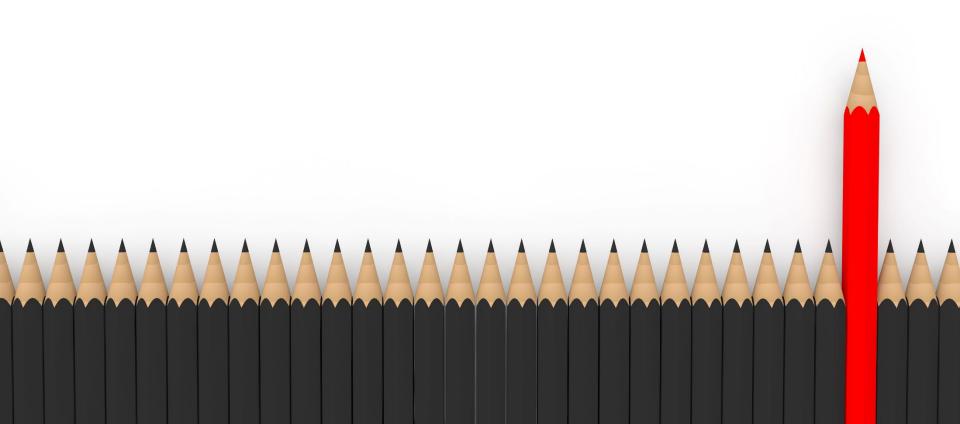
2018 to 2023 Medicine

### Top collaborating Institutions

by number of publications co-authored with Leeds Teaching Hospitals NHS Trust

Add to panel 🤣 Tag V + Create group									
		Institution	Co-authored publications $\psi$	Citations received for co-authored publications	Co-authors	Field-Weighted Citat 🗸			
1.	8 8 8 8 8 8	GBR University of Leeds	2,752 ▲	41,833	2,826 🛦	1.79			
2.		GBR University of Manchester	744 🛦	24,089	1,032 ▲	3.81			
3.		GBR University College London	719 🛦	28,538	1,266 ▲	4.57			
4.		GBR University of Oxford	627 ▲	16,432	744 🛦	3.41			
5.		GBR Manchester University NHS Foundation Trust	552 ▲	15,768	788 ▲	3.43			
6.		GBR Imperial College London	544 ▲	22,763	888 ▲	4.85			
7.	8 8 8 8 8 8	GBR Oxford University Hospitals NHS Foundation Trust	525 ▲	19,612	707 🛦	4.09			
8.		GBR King's College London	518 ▲	15,763	772 🛦	3.82			
9.		GBR University Hospitals Birmingham NHS Foundation Trust	496 ▲	17,758	644 🔺	4.18			
10.		GBR Newcastle upon Tyne Hospitals NHS Foundation Trust	458 ▲	18,436	606 ▲	4.58			





### A real-life review



More generally, you have not made it clear to me what the burning issue is that you are addressing in this paper. This is what the *Nature* editor will want to see, so s/he can understand why you have sent the paper to *Nature*, and why the readers of *Nature* will want to read about this research. Is

treatment of brain diseases, etc). The interest must arise directly from your results in the paper. And there might indeed be a *Nature* paper in here somewhere, but you have not convinced me,

and I worry you would not convince a Nature editor either. Whatever the broad impact is, you need to make a stronger case that you presently do for the interest of the work, if you wish to be successful in your submission to Nature.



PLoS Med. 2016 Jun; 13(6): e1002049.

Published online 2016 Jun 21. doi: 10.1371/journal.pmed.1002049

PMCID: PMC4915619

PMID: 27328301

### Why Most Clinical Research Is Not Useful

John P. A. Ioannidis 1, 2,\*

► Author information ► Copyright and License information <u>Disclaimer</u>

"Blue-sky research cannot be easily judged on the basis of practical impact, but clinical research is different and should be useful. It should make a difference for health and disease outcomes or should be undertaken with that as a realistic prospect".



Table 1

### Features to consider in appraising whether clinical research is useful.

Feature	Questions to Ask		
Problem base	Is there a health problem that is big/important enough to fix?		
Context placement	Has prior evidence been systematically assessed to inform (the need for) new studies?		
Information gain	Is the proposed study large and long enough to be sufficiently informative?		
Pragmatism	Does the research reflect real life? If it deviates, does this matter?		
Patient centeredness	Does the research reflect top patient priorities?		
Value for money	Is the research worth the money?		
Feasibility	Can this research be done?		
Transparency	Are methods, data, and analyses verifiable and unbiased?		



	FINER Criteria for a Good Research Question						
F	Feasible	<ul> <li>Adequate number of subject</li> <li>Adequate technical expertise</li> <li>Affordable in time and money</li> <li>Manageable in scope</li> </ul>					
1	Interesting	Getting the answer intrigues the investigator, peers, and community					
N	Novel	Confirms, refutes, or extends previous findings					
E	Ethical	Amenable to a study that Institutional Review Board will approve					
R	Relevant	<ul> <li>To scientific knowledge</li> <li>To clinical and health policy</li> <li>To future research</li> </ul>					



Data dredging, salami-slicing, and other successful strategies to ensure rejection: twelve tips on how to *not* get your paper published

Geoff Norman ☑

- "Whatever the down side of it, we rarely deliberately replicate studies. Far more commonly a study gets replicated simply because the author was unaware of previous work.
- It is now the case that many manuscripts are rejected because the literature review was incomplete or inadequate.
- A good literature review is a sine qua non. This should arise early in the development of the idea, as it then permits refinement (or abandonment) of the study in light of the evidence available."

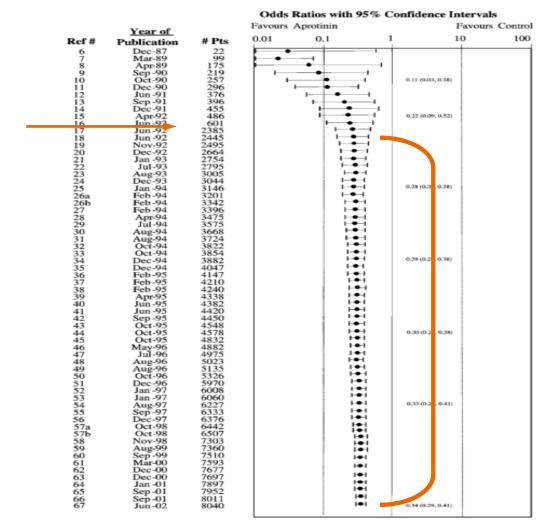


Figure 3 Cumulative meta-analysis of all RCTs.



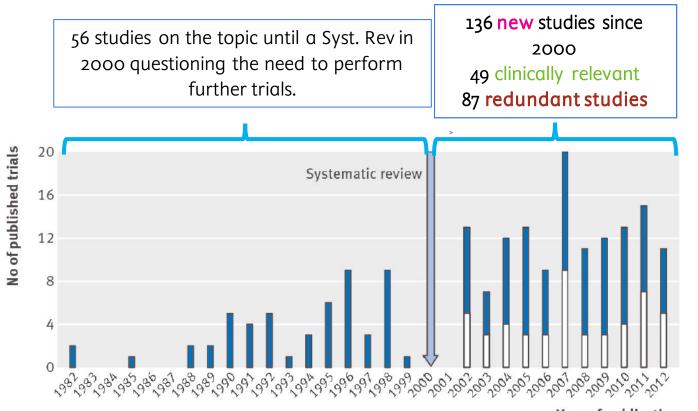
52 additional trials

> 5,600 patients

Fergusson, D; Glass, K C; Hutton, B, and Shapiro, S. Randomized controlled trials of aprotinin in cardiac surgery using clinical equipoise to stop the bleeding. Clinical Trials. 2005; 2(3)218-232.

# "Ability of a meta-analysis to prevent redundant research: systematic review of a Alvira studies on pain from propofol injection"





Redundancy in research is unethical, and a waste of resources

Habre C, Tramèr MR, Pöpping DM, Elia N. Ability of a meta-analysis to prevent redundant research: systematic review of studies on pain from propofol injection. *BMJ*. 2014;348:g5219.

Year of publication





## From the editors



## **BMJ Open**

How can I maximise my chances of being published?

BMJ Open will publish all submissions judged to be technically sound after peer review. Asking yourself these five questions will help maximise your chances of a successful submission.

- Does my research fall within BMJ Open's aims and scope?
- Is the research question clear?
- Is the study design appropriate?
- Is the study valid?
- Is the research presented correctly?

### Paper Rejected After Review – 9 Ways to Avoid Manuscript Rejection

- The manuscript fails the technical screening
- 2. The manuscript does not fall within the journal's Aims and Scope
- 3. The research topic isn't of **great enough** significance
- 4. The research is **over-ambitious**
- 5. A clear hypothesis hasn't been established
- 6. The manuscript is **incomplete**
- 7. There are **flaws** in the **procedures**, **presentation** or **analysis of the data**
- 8. Flaws in the manuscript's arguments and/or conclusions
- 9. Language, writing and spelling issues

## 1. The manuscript fails the technical screening



Keep in mind

for later

Before the manuscript gets passed to the Editor-in-Chiefor Managing Editor of a journal, the editorial office will undertake some basic checks. The main reasons for rejection of papers at this stage include:

- Suggested elements of plagiarism
- The paper is under review at another journal (submission to multiple journals at the same time isn't allowed)
- Key elements such as a title, list of authors and affiliations, main text, references, or figures and tables are missing
- The quality of the language is not sufficient for review to take place
- Tables and figures are not clear enough to read
- The paper doesn't conform to the journal's Author Guidelines



A journal editor reveals the top reasons so many manuscripts don't make it to the peer

By Peter Thrower, PhD Posted on 12 September 2012

It fails the technical screening.

review process

- The **English** is **not sufficient** for the peer review process.
- The figures are not complete or are not clear enough to read.
- The article does not conform to the Guide for Authors for the journal it is submitted to.
- References are incomplete or very old.
- 2. It does not fall within the **Aims and Scope** (of the journal).
- It's incomplete.

### Cont...



- 4. The procedures and/or analysis of the data is seen to be defective.
- 5. The conclusions cannot be justified on the basis of the rest of the paper...
- 6. It's is simply a small extension of a different paper, often from the same authors.
- 7. It's incomprehensible.
  - The language, structure, or figures are so poor that the merit can't be assessed. Have a native English speaker read the paper. Even if you ARE a native English speaker.
- 8. It's boring.

# What do editors look at?

The first parts of the manuscript that the editor sees are:

- the Title,
- the Abstract and
- the Cover letter





## Title

### Dr. Ximena Alvira



- Differentiates your paper from other
  papers of the same subject area: it can
  be the difference between being
  selected for publication or not.
- Should **capture** the readers' attention: it can be the difference between being **read or not.**

# The title is without doubt the part of a paper that is read the most, and it is usually read first.



Published: 26 August 2015

# Papers with shorter titles get more citations

**Boer Deng** 

Nature (2015) Cite this article

4503 Accesses 9 Citations 1081 Altmetric Metrics

Intriguing correlation mined from 140,000 papers.



Journal of Clinical Epidemiology
Volume 85, May 2017, Pages 32-36



Original Article

Health care articles with simple and declarative titles were more likely to be in the Altmetric Top 100

Nicola Di Girolamo a, b A ☑, Reint Meursinge Reynders c, d

Ctip2-, Satb2-, Prox1-, and GAD65-Expressing Neurons in Rat Cultures: Preponderance of Single- and Double-Positive Cells, and Cell Type-Specific Expression of Neuron-Specific

Gene Family Members, Nsq-1 (NEEP21) and

Nsq-2 (P19)

Try to avoid abbreviations and jargon

Use appropriate words that describe your work

Gamma knife radiosurgery for recurrent gliomas

Ideally include: study
population, disease or condition under study,
key details about the study design, hint about the
findings or outcomes

Review > Sci Total Environ. 2022 Mar 20;813:152667. doi: 10.1016/j.scitotenv.2021.152667. Epub 2021 Dec 25.

Content of toxic components of cigarette, cigarette smoke vs cigarette butts: A comprehensive systematic review



# miR miR on the wall, who's the most malignant medulloblastoma miR of them all?

```
Xin Wang <sup>1 2</sup>, Borja L Holgado <sup>1</sup>, Vijay Ramaswamy <sup>1 3</sup>, Stephen Mack <sup>1</sup>, Kory Zayne <sup>1</sup>, Marc Remke <sup>4</sup>, Xiaochong Wu <sup>1</sup>, Livia Garzia <sup>1</sup>, Craig Daniels <sup>1</sup>, Anna M Kenney <sup>1 5 6</sup>, Michael D Taylor <sup>1 2 7</sup>
```

Affiliations + expand

PMID: 28575493 PMCID: PMC5817951 DOI: 10.1093/neuonc/nox106

Free PMC article

Review > Curr Opin Microbiol. 2019 Dec;52:55-63. doi: 10.1016/j.mib.2019.05.002. Epub 2019 Jun 7.

# Fantastic yeasts and where to find them: the hidden diversity of dimorphic fungal pathogens

Marley C Caballero Van Dyke <sup>1</sup>, Marcus M Teixeira <sup>2</sup>, Bridget M Barker <sup>3</sup>

Affiliations + expand

PMID: 31181385 DOI: 10.1016/j.mib.2019.05.002

## But...

You need to consider several factors when choosing the right title for your publication:

- Journal
- Type of article
- Type of discipline
- Type of research
- Audience...



### 3 Basic tips on writing a good research paper title





Popular · This article is in Title, Abstract & keywords



### Sneha Kulkarni

Oct 17, 2013

1.2m views · 5 claps





## 4 Important Tips on Writing a Research **Paper Title**

Titlez

By Enago Academy

**VIEWS ₡** 509K PUBLISHED ON

READING TIME

4 Minutes

m Apr 25, 2022

https://www.editage.com/insights/3-basic-tips-on-writing-a-good-research-paper-title



# **Abstract**Dr. Ximena Alvira

- It is key for the editor. Based on the abstract, he/she may decide to continue reading, or not.
- A poor-quality abstract rarely summarizes a high-quality manuscript.
- For many readers, the abstract is the only part of the published article they will be able to access.



- Double-check that numbers in the abstract match those in the text, tables, results, and legends.
- Make sure it conforms strictly to the style indicated in the journal's Author
   Guidelines (word limit, type of abstract, etc.).
- Make sure it does not contain typographical or syntax errors.
- An abstract should be **fully understandable** on its own, a completely **independent** text.
- It should be the last thing you write.

# How to write an effective title and abstract and choose appropriate keywords

Velany Rodrigues

Nov 04, 2013

1.3m views · 5 claps

#### Key takeaways:

- Without the title, abstract, and keywords—the key marketing tools for research papers—most papers may never be read or even found by interested readers.
- Good research paper titles (typically 10–12 words long) use descriptive terms and phrases that
  accurately highlight the core content of the paper.
- The abstract should provide a quick and accurate summary of the paper, to help the reader decide whether the rest of the paper is worth reading.
- Keywords ensure that your paper is indexed well by databases and search engines, and thus
  improve the discoverability of your research. Therefore, keywords should be selected after
  careful consideration.

### Dr. Ximena Alvira

### How to Write an Abstract | Steps & Examples

Published on February 28, 2019 by Shona McCombes, Revised on July 18, 2023 by Eoghan Ryan.

An abstract is a short summary of a longer work (such as a thesis, dissertation or research paper). The abstract concisely reports the aims and outcomes of your research, so that readers know exactly what your paper is about.

Although the structure may vary slightly depending on your discipline, your abstract should describe the purpose of your work, the methods you've used, and the conclusions you've drawn.



Click to enlarge

One common way to structure your abstract is to use the IMRaD structure. This stands for:

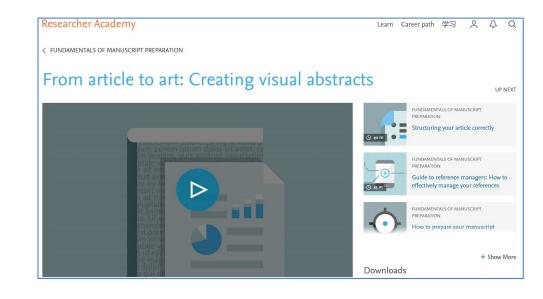
- Introduction
- Methods
- Results
- Discussion

Abstracts are usually around 100–300 words, but there's often a strict word limit, so make sure to check the relevant requirements.



Dr. Ximena Alvira Create a graphical abstract: allows readers to quickly gain an understanding of the take-home message of the paper.

- They are beneficial both in terms of views of the article as well as increased activity on social media.
- Research shows that the average annual use of an article with a graphical abstract is doubled when compared with those without one.









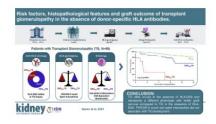
### Examples of graphical abstracts



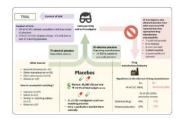
Incidence of ESKD Among Native Hawaiians and Pacific Islanders Living in the 50 US States and Pacific Island
Territories ₹



Sleep Apnea in Maintenance Hemodialysis: A Mixed-Methods Study ₹



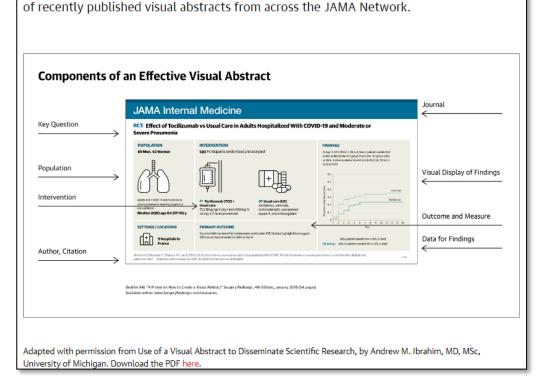
Risk factors, histopathological features, and graft outcome of transplant glomerulopathy in the absence of donor-specific HLA antibodies >>



A meta-research study revealed several challenges in obtaining placebos for investigator-initiated drug trials \*\*

Ideal for sharing, JAMA Network visual abstracts offer a quick, helpful overview of the key findings and conclusions of randomized clinical trials. Explore below for a selection

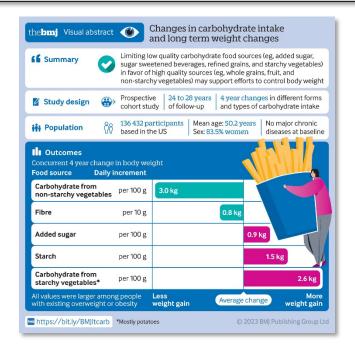


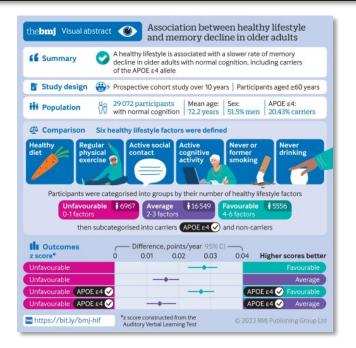


To view all JAMA Network visual abstracts, please click here.

### BMJ visual abstracts

To help our readers to get a quick overview of research we publish, we started making visual abstracts (also known as "graphical abstracts") in March 2018. These small images give a summary of selected papers. Initially, we are focussing on reports of trials and systematic reviews, but more formats may be introduced in future.



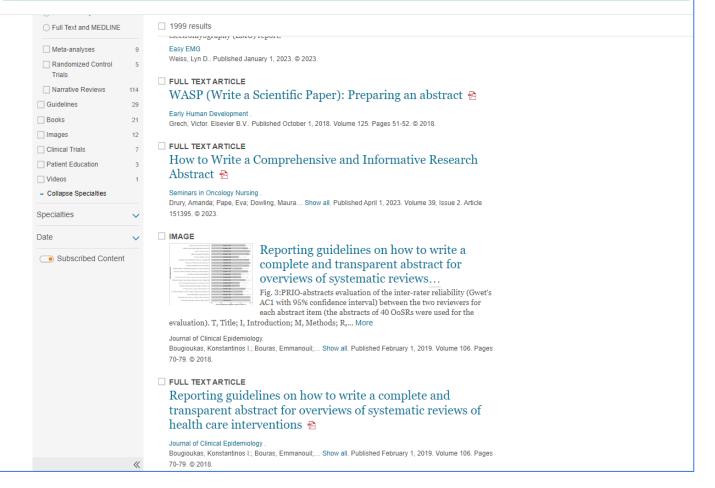


All Types 

✓ how to write the abstract









# Cover letter Alvira

- It can strongly influence the editor's decision.
- "Used effectively, it provides an excellent opportunity for the author to communicate and lobby directly with the editor and grab their attention".
- "The cover letter introduces the manuscript and supplies critical insights into the merits of the work to the editors".

# "I won't know why I should care about your experiment until you tell me why I should".

"I won't know why I should care about your experiment until you tell me why I should".

## Cover letters Dr. Ximena Alvira

A good cover letter can help to "sell" your manuscript to the journal editor. As well as introducing your work to the editor you can also take this opportunity to explain why the manuscript will be of interest to a journal's readers, something which is always as the forefront editors' mind. As such it is worth spending time writing a coherent and persuasive cover letter.

The following is an example of a poor cover letter:

Dear Editor-in-Chief,

I am sending you our manuscript entitled "Large Scale Analysis of Cell

Cycle Regulators in bladder cancer" by Researcher et al. We would like to have the manuscript considered for publication in Pathobiology.

Please let me know of your decision at your earliest convenience.

With my best regards,

Sincerely yours,

A Researcher, PhD



The Wolf of Wall Street

# 10 Tips to write an effective cover letter for journal submission (Download - cover letter template)

Popular · This article is in Submission Process



170.3k views · 2 claps 术





Editor's Note: This post was originally published in 2013 and has been refreshed.

#### Cover Letter Template for Journal Submissions.pdf

**↓** Download

#### Template for cover letter

ed/tage Insights

Dear Dr./Ms./Mr. [insert Editor's name],

I would like to request you to consider the attached manuscript entitled [insert manuscript title] for publication in [insert the journal's name] as an original article.

While many studies have investigated the [briefly describe the existing state of knowledge on the subject], I have not come across a paper that deals with [the subject/theme/topic of your study]. We conducted [brief description of methods] and came up with [give a brief overview of results]. I feel that [why your research is important and what future direction it might offer].

I believe that the findings of this study are relevant to the scope of your journal and will be of interest to its readership. I have provided tables summarizing the findings. If required, the entire data can be made available as supplementary information [optional/only if applicable]. Do let me know if you wish to have a look at them.

This manuscript has not been published or presented elsewhere in part or in entirety, and is not under consideration by another journal. There are no conflicts of interest to declare.

[Alternatively, if you have conflicts of interest, you should mention them here].

I look forward to hearing from you.

Sincerely, [Your name]

# Next:

"Recommendations on how to effectively write the main sections of an original article"



"The reader's job is to pay attention and remember what they read. The writer's job is to make those two things easy to do"



# Write an article that:

- Has a clear and useful message
- Has a logical manner
- Is **easy** to read





Title, Abstract

Introduction

Methods

Results

Tables and Figures

Discussion







# Tables and Figures

Results

Methods

Discussion

Introduction

Title, Abstract

# Tables and figures

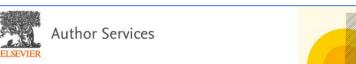
- Play a key role in improving the manuscript's quality.
- They improve understanding and interpretation of the study results.
- They provide the editors,
   reviewers and readers a quick
   overview of the study findings.
- Save time and space when representing numerical data.
- They significantly reduce the length of the manuscript.



Use a Table	Use a Figure	Use text
To show many and precise numerical values and other specific data in a small space <sup>17</sup>	To show trends, patterns, and relationships across and between data sets when the general pattern is more important than the exact data values 8,9,13,16,17,18 (what to use: graphs and data plots)	When you don't have extensive or complicated data to present
To compare and contrast data values or characteristics among related items <sup>2,9</sup> or items with several shared characteristics or variables <sup>19</sup>	To summarize research results <sup>8</sup> (what to use: graphs, data plots, maps, and pie charts)	When putting your data into a table would mean creating a table with 2 or fewer columns2
To show the presence or absence of specific characteristics 19	To present a visual explanation of a sequence of events, procedures, geographic features, or physical characteristics 7,18 (what to use: schematic diagrams, images,	When the data that you are planning to present is peripheral to the study or irrelevant to the main study findings <sup>8,12</sup>

When to use what?

Tips on effective use of tables and figures in research papers





### Language Editing Services

Ensure that your work is written in correct English before submission

ELSEVIER

RESEARCH PROCESS

MANUSCRIPT PREPARATION

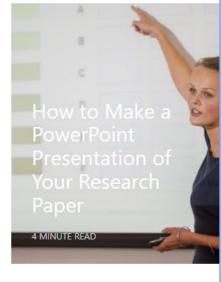
MANUSCRIPT REVIEW

**PUBLICATION PROCESS** 

PUBLICATION RECOGNITION

**ENGLISH** 





- First, design the table, then add the labels, and finally add the numbers.
- Use a clean layout and legible font.
- Leave sufficient spacing between columns and rows.
- Add a descriptive title and describe in the legend any abbreviations and symbols used. They are key to understanding the table or figure.
- For submission, leave one table/figure per page.
- Use page breaks to separate pages.
- Place them at the end of the manuscript, after the references (follow the Author Guidelines).

- Make sure percentages add up to 100%.
- **Unify** decimal places.

Magazine | Feature Article

Neuroscience Science Forum: Ten common statistical mistakes to watch out for when writing or reviewing a manuscript Tamar R Makin <sup>™</sup>, Jean-Jacques Orban de Xivry

University College London, United Kingdom; KU Leuven, Belgium

Oct 9, 2019 · https://doi.org/10.7554/eLife.48175 8 @

https://elifesciences.org/articles/48175

https://adc.bmj.com/content/archdischild/ 100/7/608.full.pdf

ARCHIVES OF DISEASE IN Open Access CHILDHOOD from BMI ▶ View this article
▶ Submit a manuscript
▶ Open Access at BMI
▶ Contact us

Arch Dis Child. 2015 Jul; 100(7): 608-609.

Open Access > PMC4483789

Published online 2015 Apr 15. doi: 10.1136/archdischild-2014-307149

Too many digits: the presentation of numerical data

T J Cole

► Author information ► Article notes ► Copyright and License information Disclaimer

PMCID: PMC4483789

PMID: 25877157

Table 1. Causes of chronic renal failure in children in our study patients (n=66).

Diagnosis	Number of patients	Percentage
Urinary system anomalies	33	50%
Posterior Urethral Valve	11	17%
Vesicoureteric Reflux	11	17%
Renal Dysplasia	8	12%
Other anomalies	3	4.5%
Hereditary conditions:	8	12%
Congenital nephrotics	3	4.5%
ARPKD	2	3%
FHHNC	2	3%
Cystinosis	1	1.5%
Neurogenic bladder	13	19.6%
Spina bifida or sacral agenesis	9	13.6%
Idiopathic	4	6%
Glomerular	9	13.6%
Steroid resistant nephrotic syndrome	5	7.5%
Rapidly progressive glomerulonephritis	4	6%
Cortical necrosis	1	1.5%

ARPKD= Autosomal recessive polycystic kidney disease

FHHNC= Familial hypomagnesemia hypercalciuria nephrocalcinosis syndrome

Table 1. Causes of chronic renal failure in children in our study patients (n=66).

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Cystinosis	1	1.5%
Neurogenic bladder	13	19.6%
Spina bifida or sacral agenesis	9	13.6%
Idiopathic	4	6%
Glomerular	9	13.6%
Steroid resistant nephrotic syndrome	5	7.5%
Rapidly progressive glomerulonephritis	4	6%
Cortical necrosis	1	1.5%

ARPKD= Autosomal recessive polycystic kidney disease

FHHNC= Familial hypomagnesemia hypercalciuria nephrocalcinosis syndrome

- Total percentage does not add up to 100% (96.7%)
- Neither do all the individual groups.
- Percentage symbol is not needed.
- Items should be centered.
- Contains spelling mistakes (vesicoureteric, congenital nephrotics).
- Format could be cleaner.

Diagnosis	Nº of patients	Percentage
Urinary system anomalies	33	52
Posterior urethral valve	11	17
Vesicoureteral reflux	11	17
Renal dysplasia	8	13
Other anomalies	3	5
Neurogenic bladder	13	20
Spina bifida or sacral agenesis	9	14
Idiopathic	4	6
Glomerular	9	14
Steroid resistant nephrotic syndrome	5	8
Rapidly progressive glomerulonephritis	4	6
Hereditary conditions	8	12
Congenital nephrotic syndromes	3	5
ARPKD	2	3
FHHNC	2	3
Cystinosis	1	1
Cortical necrosis	1	2

ARPKD: autosomal recessive polycystic kidney disease; FHHNC: familial hypomagnesemia hypercalciuria nephrocalcinosis syndrome.

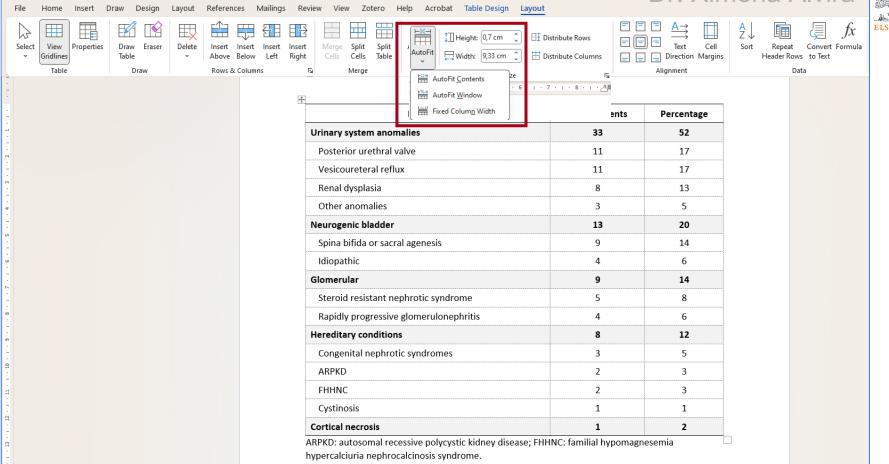
Table 1. Etiology of chronic kidney disease in patients aged 10-65

Diagnosis	Nº of patients	Percentage
Urinary system anomalies	33	52
Posterior urethral valve	11	17
Vesicoureteral reflux	11	17
Renal dysplasia	8	13
Other anomalies	3	5
Neurogenic bladder	13	20
Spina bifida or sacral agenesis	9	14
Idiopathic	4	6
Glomerular	9	14
Steroid resistant nephrotic syndrome	5	8
Rapidly progressive glomerulonephritis	4	6
Hereditary conditions	8	12
Congenital nephrotic syndromes	3	5
ARPKD	2	3
FHHNC	2	3
Cystinosis	1	1
Cortical necrosis	1	2

ARPKD: autosomal recessive polycystic kidney disease; FHHNC: familial hypomagnesemia hypercalciuria nephrocalcinosis syndrome.

- First, design the table, then add the labels, and finally add the numbers.
- Use a clean layout and legible font.
- Leave sufficient spacing between columns and rows.
- Add a descriptive title and describe in the legend any abbreviations and symbols used. They are key to understanding the table or figure.





#### 3.1. Incidence and characteristics of surgical procedures

Overall, of the 1211 patients who underwent liver transplantation, 161 patients underwent 183 further surgical procedures (15%) for conditions both related and unrelated to the transplant (Table 1). Among these, 154 were patients with liver transplants only, six had both liver and kidney transplants and one patient had both liver and lung transplants. Among the 183 procedures, post-operative morbidity was noticed after 54 procedures (30%) and mortality after two procedures (1%) secondary to sepsis and renal failure after emergency intestinal surgeries. Emergency surgery was required in 19 procedures (10%), while 162 (90%) were elective surgical procedures. Among the 19 emergency cases (10%), six were morbid (32%). Emergency cases accounted for both the mortalities (11%). Of the 164 electively operated cases, 48 had post-operative morbidity (30%). There was no mortality after elective surgery. While there was no statistical difference in the post-operative morbidity between the elective and emergency surgery groups, post-operative mortality was significantly higher after the emergency surgeries (p = 0.02). Overall, 78 procedures (43%) were major and 103 procedures (57%) were minor. Among the 103 minor procedures, post-operative complications arose in 16% of cases, while among the 78 major procedures post-operative complications arose in 49% of cases. Post-operative morbidity was significantly higher after major surgery compared to minor surgery (p = 0.04). Both the mortalities occurred after major surgeries (Table 1).

- Disorganized data
- Difficult to follow
- Number inconsistencies
  - Elective surgery: 162 vs 164
  - Type of procedure:minor+major=181 vs183

Table 1 Descriptive and analytic results of the current study.

Parameters	Number	Percentage	p
LT cohort	1211	_	
Surgical procedures	183	15%	_
Number of patients	161	_	_
Overall morbidity	54	30%	_
Overall mortality	2	1%	_
Emergency surgery	19	10%	_
Morbidity <sup>c</sup>	6	32%	NS
Mortality <sup>d</sup>	2	11%	0.02
Elective surgery	162	90%	_
Morbidity <sup>c</sup>	48	30%	NS
Mortality <sup>d</sup>	0	0%	0.02
Major procedures <sup>a</sup>	78	43%	_
Morbidity <sup>e</sup>	38	49%	0.04
Mortality <sup>r</sup>	2	2.6%	NS
Minor procedures <sup>b</sup>	103	57%	_
Morbidity	16	16%	0.04
Mortality <sup>f</sup>	0	0%	NS

#### LT: liver transplant.

Dr Ximena Alvira

Column labels could be improved

- Difficult to interpret the data
- Individual numbers don't add up to total N (1211).

Percentages do not add up to

- 100%
- Confusing legend

a Defined as procedures with peritoneal cavity opening with a visceral surgical procedure (digestive resection and/or anastomosis).

defined as procedures limited to the abdominal wall.

Morbidity comparisons between emergency and elective surgeries.

Mortality comparisons between emergency and elective surgeries. Morbidity comparisons between major and minor surgeries.

Mortality comparisons between major and minor surgeries.

**Table 1**Descriptive and analytic results of the current study.

Parameters	Number	Percentage	p	
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Morbidity <sup>e</sup>	38	49%	0.04	
Mortality <sup>f</sup>	2	2.6%	NS	
Minor procedures <sup>b</sup>	103	57%	_	
Morbidity <sup>e</sup>	16	16%	0.04	
Mortality <sup>f</sup>	0	0%	NS	

LT: liver transplant.

Table I	Patient characteristics imena	A	lvira
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	Patients N = 36	
	No.	%
Age (years)		
Median	_	56
Range	36	-77
Sex		
Female	21	58
Male	15	42
ECOG PS		
0	16	44
1	19	53
2	1	3
Type of tumour		
Carcinoid	21	58
Islet cell carcinoma	15	42
Prior treatment		
Adjuvant chemotherapy	2	6
Palliative chemotherapy	21	58
Radiotherapy	5	14
Bland embolisation	4	11
Surgery	26	72
Octreotide	9	25
No. of prior chemotherapy regimens		
0	14	39
1	9	25
2	7	19
3	3	8
4	3	8

<sup>&</sup>lt;sup>a</sup> Defined as procedures with peritoneal cavity opening with a visceral surgical procedure (digestive resection and/or anastomosis).

b defined as procedures limited to the abdominal wall.

<sup>&</sup>lt;sup>c</sup> Morbidity comparisons between emergency and elective surgeries.

<sup>&</sup>lt;sup>d</sup> Mortality comparisons between emergency and elective surgeries.

<sup>&</sup>lt;sup>e</sup> Morbidity comparisons between major and minor surgeries.

Mortality comparisons between major and minor surgeries.

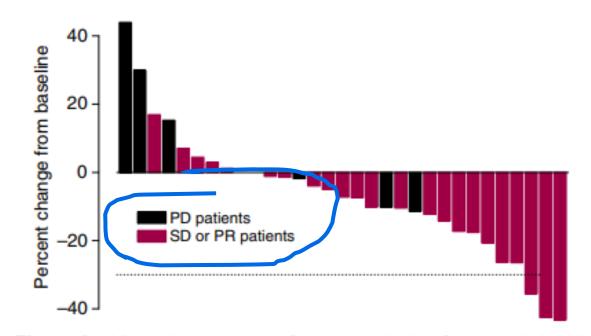


# **Describe** in the **legend** any abbreviations and **symbols** used: they are **key** to understanding the table or figure.

# Dr. Ximena Alvira

Safety and tolerability data are available for 213 treatment cycles, with a median number of four cycles delivered per patient (range 1-21), AE deemed by the investigator as at least possibly related to

Toxicity



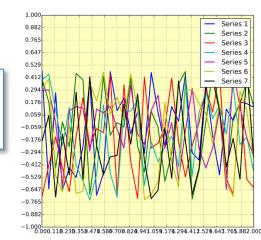
**Figure I** Maximal percentages of tumour reduction for target lesion(s) by RECIST criteria (*Note*: some patients with PD progressed owing to new or increasing non-target lesions, or by symptomatic progression).

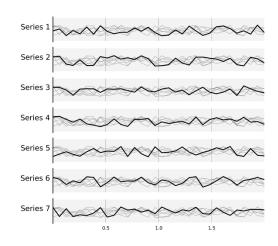
- Be critical about what is necessary vs what is nice to have.
- Think about what your main takeaway is going to be and emphasize it as clearly as possible.

## Ten Simple Rules for Better Figures

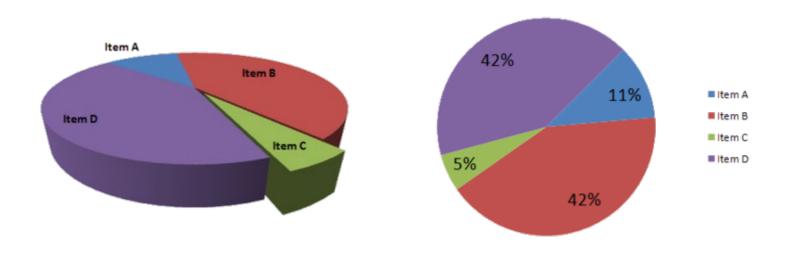
Nicolas P. Rougier , Michael Droettboom, Philip E. Bourne

Published: September 11, 2014 • https://doi.org/10.1371/journal.pcbi.1003833





- Do not use special effects or 3D graphs.
- Do not use Power Point to format figures unless you can ensure the resolution required by the journal.



# Data Visualization: Why 3D charts Vinhena Alvira are a terrible idea





# Results

- Answer the question WHAT.
- Written in **past** tense.
- Depending on the type of study and study design they will need to include some information or another.
- Use <a href="http://www.equator-network.org/">http://www.equator-network.org/</a> to find the specific reporting guideline.

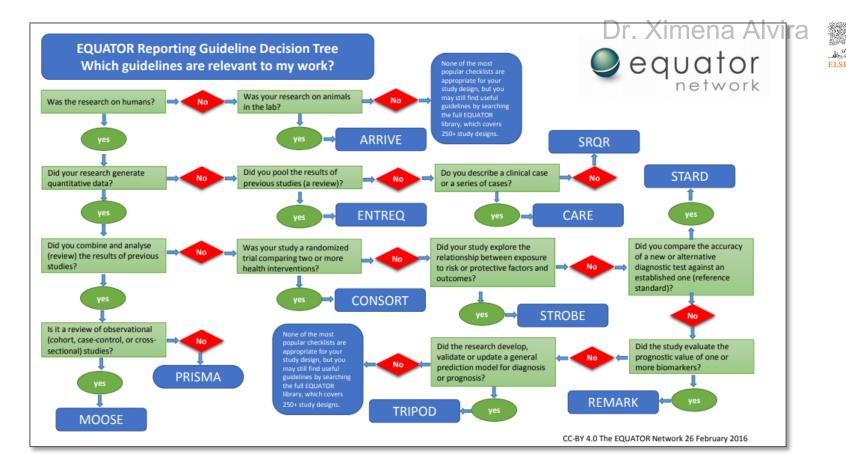


addo roport gardamad			_
Topic	Item	Checklist item description	Reported on Line
Title	1	The diagnosis or intervention of primary focus followed by the words "case report"	
Key Words	2	2 to 5 key words that identify diagnoses or interventions in this case report, including "case report"	
Abstract	3a	Introduction: What is unique about this case and what does it add to the scientific literature?	
(no references)	3b	Main symptoms and/or important clinical findings	
	3c	The main diagnoses, therapeutic interventions, and outcomes	
	3d	Conclusion—What is the main "take-away" lesson(s) from this case?	
Introduction	4	One or two paragraphs summarizing why this case is unique (may include references)	
Patient Information	5a	De-identified patient specific information.	
	5b	Primary concerns and symptoms of the patient	
	5c	Medical, family, and psycho-social history including relevant genetic information	
	5d	Relevant past interventions with outcomes	
Clinical Findings	6	Describe significant physical examination (PE) and important clinical findings.	
Timeline	7	Historical and current information from this episode of care organized as a timeline	
Diagnostic 8a Assessment 8b		Diagnostic testing (such as PE, laboratory testing, imaging, surveys).	
		Diagnostic challenges (such as access to testing, financial, or cultural)	
	8c	Diagnosis (including other diagnoses considered)	
	8d	Prognosis (such as staging in oncology) where applicable	
Therapeutic	9a	Types of therapeutic intervention (such as pharmacologic, surgical, preventive, self-care)	
Intervention	9b	Administration of therapeutic intervention (such as dosage, strength, duration)	
	9c	Changes in therapeutic intervention (with rationale)	
Follow-up and	10a	Clinician and patient-assessed outcomes (if available)	
Outcomes	10b	Important follow-up diagnostic and other test results	
	10c	Intervention adherence and tolerability (How was this assessed?)	
	10d	Adverse and unanticipated events	
Discussion	11a	A scientific discussion of the strengths AND limitations associated with this case report	
	11b	Discussion of the relevant medical literature with references.	
	11c	The scientific rationale for any conclusions (including assessment of possible causes)	
	11d	The primary "take-away" lessons of this case report (without references) in a one paragraph conclusion	
Patient Perspective	12	The patient should share their perspective in one to two paragraphs on the treatment(s) they received	
Informed Consent	13	Did the patient give informed consent? Please provide if requested	

#### STROBE Statement—checklist of items that should be included in reports of observational studies

	Item No	Recommendation
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the abstract
		(b) Provide in the abstract an informative and balanced summary of what was done
		and what was found
Introduction		
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported
Objectives	3	State specific objectives, including any prespecified hypotheses
Methods		
Study design	4	Present key elements of study design early in the paper
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment
		exposure, follow-up, and data collection
Participants	6	(a) Cohort study—Give the eligibility criteria, and the sources and methods of
		selection of participants. Describe methods of follow-up
		Case-control study—Give the eligibility criteria, and the sources and methods of
		case ascertainment and control selection. Give the rationale for the choice of cases
		and controls
		Cross-sectional study—Give the eligibility criteria, and the sources and methods of
		selection of participants
		(b) Cohort study—For matched studies, give matching criteria and number of
		exposed and unexposed
		Case-control study—For matched studies, give matching criteria and the number of
		controls per case
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect
		modifiers. Give diagnostic criteria, if applicable
Data sources/	8*	For each variable of interest, give sources of data and details of methods of
measurement		assessment (measurement). Describe comparability of assessment methods if there
		is more than one group

Use the appropriate reporting guidelines for your study type and methodology



https://www.equator-network.org/toolkits/selecting-the-appropriate-reporting-guideline/

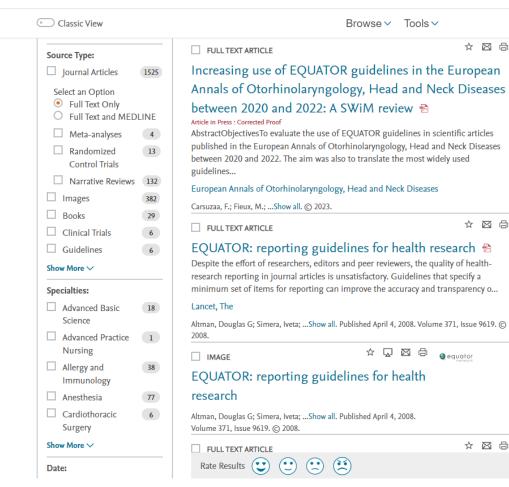
All Types

equator guidelines

Dr. Ximena AlviraxI

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# Questions to consider when reading (and writing) the results section include:



- What did the author(s) find and how did they find it?
- Does the author(s) highlight any findings as most significant?
- Are the results presented in a factual and unbiased way?
- Does the analysis of results in the discussion section agree with how the results are presented?
- Is all the data present and did the author(s) adequately address gaps?
- What conclusions do you formulate from this data and does it match with the author's conclusions?

- Make sure the results are the consequence of the methods used.
- Make sure the **results** answer the **questions** raised in the **Introduction**.
- State the study outcomes **objectively**. Present the information without **interpretation** and **avoid** phrases like, "Surprisingly, we found..." or "Contrary to what we expected..."
- Use previous papers with similar methodological approach to guide you in the writing of this (and other) sections.

• Do not duplicate what is being presented in **Tables** and **Figures**.

#### 3.1. Incidence and characteristics of surgical procedures

Overall, of the 1211 patients who underwent liver transplantation, 161 patients underwent 183 further surgical procedures (15%) for conditions both related and unrelated to the transplant (Table 1). Among these, 154 were patients with liver transplants only, six had both liver and kidney transplants and one patient had both liver and lung transplants. Among the 183 procedures, post-operative morbidity was noticed after 54 procedures (30%) and mortality after two procedures (1%) secondary to sepsis and renal failure after emergency intestinal surgeries. Emergency surgery was required in 19 procedures (10%), while 162 (90%) were elective surgical procedures. Among the 19 emergency cases (10%), six were morbid (32%). Emergency cases accounted for both the mortalities (11%). Of the 164 electively operated cases, 48 had post-operative morbidity (30%). There was no mortality after elective surgery. While there was no statistical difference in the post-operative morbidity between the elective and emergency surgery groups, post-operative mortality was significantly higher after the emergency surgeries (p = 0.02). Overall, 78 procedures (43%) were major and 103 procedures (57%) were minor. Among the 103 minor procedures, post-operative complications arose in 16% of cases, while among the 78 major procedures post-operative complications arose in 49% of cases. Post-operative morbidity was significantly higher after major surgery compared to minor surgery (p = 0.04). Both the mortalities occurred after major surgeries (Table 1).

Table 1
Descriptive and analytic results of the current study.

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#### LT: liver transplant.

- <sup>a</sup> Defined as procedures with peritoneal cavity opening with a visceral surgical procedure (digestive resection and/or anastomosis).
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- <sup>c</sup> Morbidity comparisons between emergency and elective surgeries.
- d Mortality comparisons between emergency and elective surgeries.
- <sup>e</sup> Morbidity comparisons between major and minor surgeries.
- Mortality comparisons between major and minor surgeries.

#### 3. Results

#### 3.1. Patients

Between May 2011 and December 2014, 86 patients (43 in the HX arm and 43 in the LX arm) from 28 institutions were enrolled in this study. All patients received the study treatment and were included in the efficacy and safety analyses (Fig. 1). Patient characteristics were balanced between the 2 arms, as shown in Table 1.

#### 3.2. Efficacy

was 6.1 months in the HX arm and 7.1 months in the LX arm (stratified HR, 0.81; 90% confidence interval [CI], 0.55–1.21; p=0.39; Fig. 2A). The median OS was 31.0 months in the HX arm and was not reached in the LX arm (stratified HR, 0.58; 95% CI, 0.26–1.31; p=0.18; Fig. 2B). The ORR and DCR were evaluated in 77 patients (90%) with measurable lesions; the ORR was 40% (16/40) in the HX arm and 41% (15/37) in the LX arm (p=1.00), and the DCR was 73% (29/40) in the HX arm and 92% (34/37) in the LX arm (p=0.038), The proportion of patients with brain metastases as the site of first progression was 5% (2/43) in the HX arm and 5% (2/43) in the LX arm.

The median follow-up time was 44.6 months. The median PFS

The subgroup analysis of PFS according to the baseline clinical characteristics showed similar results across all subgroups, except for the duration of prior systemic treatment for MBC (Fig. 3). The PFS benefit in the LX arm compared with the HX arm was significantly larger if the duration was less than 1 year (interaction p = 0.007; Fig. 4A and B). This result indicated that patients whose disease had progressed on trastuzumab-based therapy within one year benefited more from LX than from HX.

# 3.3. Treatment exposure and safety

The median duration of the study treatment was 5.3 months in the HX arm and 6.2 months in the LX arm. The relative dose intensity during the first 12 weeks of study treatment was 96.3% for trastuzumab and 80.1% for capecitabine in the HX arm and 89.0% for languing and 84.1% for capecitabine in the LX arm.

for lapatinib and 84.1% for capecitabine in the LX arm.

Adverse events are listed in Table 2. Palmar-plantar erythrodysesthesia syndrome was the most common grade ≥3 adverse events in both arms. Diarrhea, rash, paronychia, and increased blood bilirubin were observed more in the LX arm. Five patients (12%) in the HX arm and 12 patients (28%) in the LX arm discontinued the study treatment because of adverse events. No

- Use numbered headings and subheadings to group similar results.
- Unless the Author Guidelines state otherwise.

# Methods

- Who? Study population (inclusion and exclusion criteria).
- How?
  - Study design: did the study use qualitative, quantitative, a mixed-methods and so on, to examining the research problem?
  - Is there enough information available to repeat the study?
- Why? What are we expecting to find? Outcomes/objectives/endpoints.
- What was done with the data? Statistical methods.



### Keep in mind:

- Describe the essential and critical steps of your experiment.
- Make sure they contain enough details to replicate them (transparency!).
- **Double check** that names of materials, equipment, reagents, genes, proteins used are correct.
- Do not include methods that have not produced results.
- Include lengthy methods in the references or in "supplementary materials/methods" section.

#### PATIENTS AND METHODS

#### Eligibility

Patients were eligible if they were 18 years of age or older and had histologically or cytologically confirmed NEC of either carcinoid or pancreatic ICC pathologies. Patients had to have documented progressive metastatic disease within 6 months of study entry. Previous chemotherapy, investigational agents, radioactive therapies and/or radiation were allowed if completed >4 weeks before study entry. Previous local therapy (e.g. bland or chemoembolisation) was allowed if completed >6 weeks before study entry. Patients were required to have measurable disease, an ECOG performance status \$2, normal serum cholesterol and triglyceride, adequate haematologic, hepatic, renal and cardiac functions and a life expectancy of >3 months. Patients had to have tumour lesions accessible for core biopsy, and must agree to undergo tumour biopsy before and 2 weeks after initiation of temsirolimus.

#### Treatment

Temsirolimus at 25 mg was administered as a 30-min intravenous infusion on a weekly schedule. Four weeks of treatment were considered as one cycle.

#### Assessment of toxicity

Adverse events were graded using the National Cancer Institute Common Terminology Criteria for Adverse Events v3.0.

#### Dose modifications

Dose modifications of temsirolimus were based on haematologic and non-haematologic toxicities at the time of every weekly dose. Upon recovery of toxicity within a maximum delay of 3 weeks, temsirolimus may be re-started with a dose reduction. Stepwise dose modifications from 25 to 20, 15 and 10 mg were allowed, but doses once reduced cannot be re-escalated.

#### Response assessment

Radiological imaging was repeated every 8 weeks to assess for tumour response until disease progression, completion of study treatment or discharge of patient from study. Tumour responses were evaluated according to standard RECIST criteria (Therasse et al, 2000). Objective responses were confirmed by central independent radiological review.

#### Correlative studies

Archival tissues Archival paraffin slides were stained for PTEN, p53, pAKT, p56 and pmTOR (phosphorylated mTOR) by immunohistochemistry. Slides were pretreated and incubated with primary antibody (Appendix 1), followed by bötin-conjugated secondaries and HRP-Streptavidin labelling reagent (ID Labs Inc.,

#### 2.2. Patients

Eligible patients were women aged 20 years or older with HER2-positive MBC or unresectable locally advanced breast cancer who were previously treated with taxanes, with progression on trastuzumab-containing regimens. HER2 positivity was defined as 3 + staining by immunohistochemistry or HER2 gene amplification (HER2:CEP17 signal ratio of 2.0 or more) by in situ hybridization. Patients treated with more than 2 chemotherapy regimens for MBC were excluded. Eligible patients had an Eastern Cooperative Oncology Group (ECOG) performance status (PS) of 0–2 and adequate bone marrow, cardiac, hepatic, and renal function. Patients with brain metastases were included if they were asymptomatic

#### 2.3. Endpoints

The primary endpoint was progression-free survival (PFS) and the secondary endpoints included overall survival (OS), the objective response rate (ORR), the disease control rate (DCR), the proportion of patients with brain metastases as the site of first progression, and safety. Tumor response and progression were assessed using Response Evaluation Criteria in Solid Tumors (RECIST) version 1.1. Chest/abdomen CT was performed at baseline and every 6 weeks. Brain MRI or CT was performed at baseline and every 6 weeks in patients with brain metastases and every 12 weeks in patients without brain metastases.

#### 2.4. Analyses of PIK3CA mutations

Archival tumor tissues of primary lesions or metastases and plasma samples at enrollment were collected from all patients who gave their consent. DNA/RNA extraction from the formalin-fixed paraffin-embedded (FFPE) tumor tissues was performed using an

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- To ensure
   consistency
   with the
   results, use
   numbered
   headings and
   subheadings
   to group
   methods.
- Unless the
  Author
  Guidelines
  state
  otherwise.

a meaningful conclusion for use of furosemide in AKI due to the limited number of controlled studies [11, 12]. It was hypothesized that furosemide infusion in early-onset AKI [by pediatric-Risk, Injury, Failure, Loss, End stage kidney disease (p-RIFLE) criteria] in critically ill children would be associated with a reduced proportion of patients progressing to the higher stage (injury or failure) as compared to placebo.

#### Material and Methods

This double-blind, placebo-controlled, randomized pilot trial was conducted in the PICU of a tertiary-care institution from 1st October 2016 to 31st December 2018. The institutional ethics committee approved the study and, a written informed consent was obtained from parents/legal guardians. Children aged 1-mo (corrected) to 12-y, who were diagnosed with early-onset AKI (risk stage), and achieved immediate resuscitation goals were enrolled within 24 h of admission. AKI was defined by p-RIFLE criteria (either urine output or serum creatinine criterion or both) [3]. The immediate resuscitation goals were defined as directed by the treating physician, which included one or more of the following: fluid resuscitation and/ or vasoactive therapy to achieve (i) capillary refill of ≤ 2 s, (ii) > 5th percentile mean arterial blood pressure (MABP), (iii) normal pulse volume with no differential peripheral and central pulse, (iv) central venous pressure (CVP)≥8 cm H2O (if measured), (v) central venous oxygen saturation (ScvO2)≥ 70% (if measured), (vi) cardiac index between 3.3 to 6.0 L/ min/m2 (if measured). Children with any of the following conditions were excluded: (i) stage-4 or more chronic kidney disease, end-stage kidney disease on renal replacement therapy (RRT), kidney transplantation or already received RRT in PICU, (ii) acute pulmonary edema requiring urgent furosemide use or RRT, (iii) patient already receiving furosemide (infusion or bolus) irrespective of dose and duration, (iv) known or suspected allergy to furosemide, and (v) known or suspected obstructive etiology for AKI.

A web-based, computer-generated, unstratified block randomization with variable block sizes of four, six, and eight were used. The random number allocation was performed by a person not involved in the study. Individual assignments were placed in sequentially numbered, opaque sealed envelopes (SNOSE). The envelope contained an instruction slip showing the dilution and preparation of the trial drug. Nursing personnel, who was not part of the study and working in the pediatric emergency, opened the envelope and prepared the infusion. Injection furosemide (FRUSEMIDE, 2 mL/20 mg, MODERN Laboratories, Indore (M.P.), India] was used. Four milliliters of prosemide (40 mg) was diluted in 36 mL of 5%-dextrose [= 1 mg/mL].

Five percent dextrose solution was used as a placebo. Both the drugs were identical in appearance. The Institute's central pharmacy supplied the trial drugs. The infusion syringe was labeled with random numbers, three alphanumerical codes, and drug dose (0.05 mL/kg/h). The volume of the infusion was also included in the calculation of the daily fluid balance. The person who prepared the trial drug was blinded to the patient's identity. The participants, nurses administering the drugs, treating doctors, and the investigators and research personnel who collected the data and study statistician, were unaware of the treatment assignments. The treatment allocation was disclosed only after the finalization of the first draft of the results.

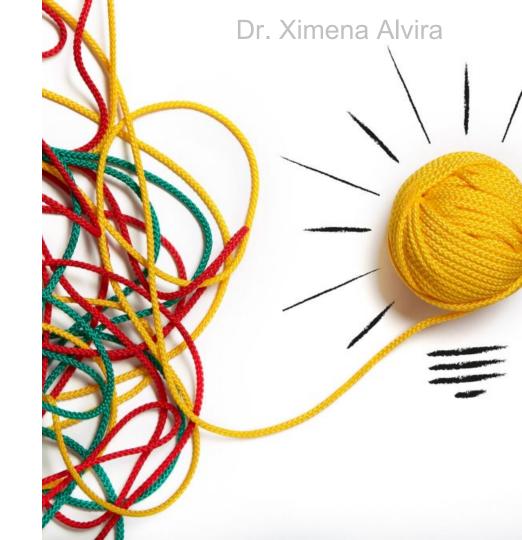
The patients were managed by stabilizing the airway, breathing, and circulation as per standard protocol. Maintenance fluid was calculated using the Holiday-Segar formula, and 80% of the calculated fluid was started, as per the study unit protocol [13]. After that, every six-hourly (more frequently, if needed) fluid charting was done based on fluid balance, clinical, and laboratory parameters. The trial drug titration concept was adapted from the SPARK study [14]. The intravenous (peripheral/central) infusion of the trial drug was commenced at 0.05 mL/kg/h (= 0.05 mg/kg/h of furosemide) using a dedicated infusion pump and titrated at the rate of 0.05 mL/kg/h up to a maximum infusion of 0.4 mL/kg/h. The trial drug infusion was titrated to achieve the minimum urine output of 1 to 2 mL/kg/h or 1 to 2 mL/kg/h from baseline. If the target urine output was achieved, the same rate of infusion was continued. If the urine output was more than the targeted range for more than two consecutive hours, the infusion rate was reduced by 0.05 mL/kg/h every hour. The infusion was discontinued if the urine output remained more than the target range with the infusion at the lowest rate (0.05 mL/ kg/h). It was started again at the lowest rate when the urine output fell below 1 mL/kg/h (or 1 mL/kg/h from baseline). The infusion was stopped, if any of the following occurred: (i) MABP below 5th percentile and/or addition of and/or increase in vasoactive therapy > 20% from baseline to achieve the target MABP or (ii) CVP < 8 cmH2O (if measured) or (iii) ScvO2 < 60% (if measured) or (iv) cardiac index < 3.3 L/min/m<sup>2</sup> (if measured). The trial drug infusion was also discontinued in the event of adverse effects related to the intervention, as described by Naranjo et al. [15]. By protocol and in order to minimize the potential bias of clinician discretion on when to initiate RRT, at least one of the following criteria must be fulfilled before initiation of RRT: (i) refractory oliguria (urine output < 0.5 mL/kg/h in preceding 6 h, despite fluid resuscitation and/or vasoactive therapy or maximum dose of the trial drug), (ii) refractory extravascular fluid overload and/or hypoxemia and/or pulmonary edema [Fraction of inspired oxygen (FiO<sub>2</sub>)≥60%, receiving mechanical ventilation, Partial pressure of oxygen (PaO2)/FiO2 ratio ≤ 200], (iii) symptomatic azotemia (i.e., encephalopathy, pericarditis), and (iv) metabolic acidosis (pH < 7.2 or HCO3 < 15): hyperkalemia [K+≥6.0 mEq/dL or electrocardiogram

### Avoid this writing style

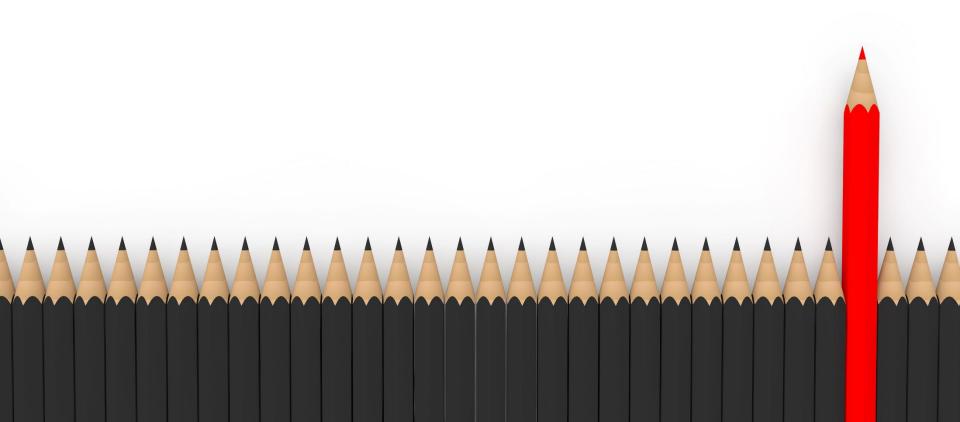
- Dense to read and difficult to interpret (and boring).
- Specific methods are difficult (impossible) to identify at a glance.

### Discussion

- It is the most important (and hardest) section to write.
- Many articles are rejected because the discussion is weak.
  - Unclear or disorganized
  - Is a repetition of the results
  - Fails to answer the research questions
  - Is largely speculative



What made your study unique? Interesting? Novel? What makes it worth publishing and reading?



## Think about the implications moving forward

- Think about "the 4 P's":
  - patients, providers, payers, policy makers.
- How will your study affect each of them?
- Does this change how patients choose treatments?
- How providers practice?
- How should payers be reimbursed?
- Policy makers regulations?

### How to structure the Discussion

- Are my results clinically and scientifically relevant?
  - Remind us why what we just read is important and why we should continue reading.

### Discussion

This is the first clinical trial to report the efficacy and safety of timothy grass AIT treatment in a North American adult population. Grass AIT treatment significantly improved TCS, DSS, and RQLQ(S) scores relative to placebo, despite the fact that the majority of subjects were multisensitized to aeroallergens, including tree pollen, weeds, and house dust mites, and other timothy grass—related grass pollens. Furthermore, these results are consistent with the efficacy demonstrated in European trials of grass AIT treatment. 22 23 24 25 The safety profile was also consistent with data from European trials. 22 23 24 25 In this study it is noteworthy that there were no grass AIT—related serious AEs, life-threatening events, or anaphylactic shock events. Importantly, the design of the trial was consistent with recommendations by Casale et al. <sup>32</sup> for producing high-quality evidence of sublingual immunotherapy's efficacy.

# BETTER Dr. Ximena Alvira

A 2006 survey conducted in the United States revealed that approximately 30 million adults have allergic rhinoconjunctivitis (ARC). <sup>1</sup> For many of these persons, grass pollen is a cause of their ARC symptoms. In some regions of the United States, it is estimated that 50% to 70% of subjects with ARC are sensitive to grass allergens. <sup>2</sup> 3 The symptoms of ARC can have a pronounced negative effect on patients' health-related quality of life by affecting sleep quality, work performance, and social activities. <sup>4</sup> The effect of these symptoms was documented in the Allergies in America survey in which 64% of patients reported frequently (29%) or sometimes (36%) feeling miserable during the allergy season. <sup>4</sup> Options to treat ARC include over-the-counter and prescription medications; however, these medications only treat symptoms and do not have long-term benefits. Specific allergen immunotherapy is an option recommended in treatment guidelines as a first-line therapy for ARC and is the only treatment option that alters the disease.

<sup>5</sup> In North America administration of immunotherapy has been predominantly subcutaneous. However, safety concerns related to the risk of near-fatal or fatal anaphylaxis, in combination with the inconvenience of frequent injections, make subcutaneous immunotherapy undesirable for many subjects. 6 7 8 9

- Why did you conduct this study?
- What was the research gap?

### Discussion

### Dr. Ximena Alvira



Vitamin D supplementation did not reduce time to <u>sputum culture</u> conversion, nor did it reduce time to detection in culture, in line with findings from one previous randomised trial using similar methods.<sup>11</sup> We did not have the capacity to do <u>vitamin D receptor</u> polymorphism testing, although on the basis of the common ethnic origin of our patients, we might not have detected much variety.

Patients with active tuberculosis in south India have mild vitamin D <u>deficiency</u> (mean 62.6 nmol/L [SD 48.8], sufficiency concentration 75 nmol/L). This deficiency might be explained by the vegetarian diet, which does not provide adequate vitamin D intake, because sun exposure in this population is intense and constant. Increases from baseline in concentrations of vitamin D <u>in patients</u> with available comparison data in our study show that <u>tuberculosis treatment</u> improved vitamin D deficiency. We noted a significant increase in vitamin D concentrations in patients in the vitamin D group, but not in those in the <u>placebo</u> group; however, patients who received vitamin D did not achieve sufficiency. Sampling at day 0 and day 180 alone might have failed to identify a significant mid-study increase in vitamin D concentrations, which were reduced towards normal by day 180.

### Dr. Ximena Alvira

- 2. Are my results comparable to other similar studies? (similar disease, stage, dosage, treatment).
- 3. If **not**, **why** not? Describe the possible **mechanisms** and **reasons** for these **differences**.
  - Discuss one result per paragraph.
  - Each paragraph should contain opinions for or against, critical evaluations,
     provide new ideas, mechanisms, explanations, and learning points.
  - Discuss any unexpected findings, without overstating their importance.

- Dr. Ximena Alvira

   Start by selecting between 3-5 articles alike that allow for comparisons:
- - **Consider** the **quality** of the studies you want to use.
  - **Reference** studies from **other** countries and centers.
  - Reference **key people** in the subject you are writing about.
- Cite **original articles** whenever possible.
- Do not make **assumptions** that the **results** cannot support.
- Do not discuss **results** that **have not** been **presented** in the **results** section or **described** in the **methods** sections.

The findings of this study raise the question: why is interventional research, rather than observational research, associated with increased Trust performance? There may be a number of factors driving this distinction. First, patients enrolled in interventional studies may directly benefit from being in the study because of a) an improved treatment being offered, and/or b) being treated in accordance to the latest applicable guidelines for the condition in question, and/or c) potentially being monitored more closely as part of the trial. Conversely, an enormous observational study such as COSMOS (COhort Study of MObile phone uSe and health) 18—which has recruited 105,000 participants and investigates the health effects of mobile phone use—is less likely to result in a change in care for those taking part. Second, positive outcomes from trials may be incorporated into clinical practice more rapidly when a Trust has participated in those trials. This has been demonstrated in various settings, from oncology units to operating theatres. 19, 20 Third, interventional research, which in our analyses included commercial activity, may also generate more income than contributions to observational research.<sup>21</sup> This in turn allows reinvestment in Trust equipment and infrastructure, or investment in



Provide twothree explanations per the finding, supported by evidence or reasoning from the authors.

### However...

Discussion

Dr. Ximena Alvira



Ozdemir et al. 4 showed a significant association between NIHR clinical <u>research</u> activity and reduced mortality, with a focus on research funding per Trust to represent research activity. Our results are in agreement with their findings despite some variations in source data and methodology. In their article, NIHR activity data from one year, 2010–11, were used, and Trust size was corrected using more than just Trust staff levels; they calculated mortality rates themselves, whereas we used the now-established SHMI, which was first used in 2010. Our approach of using only staffing levels to control for Trust size does not take into account e.g. vacancy factors (which are only published at regional level). Nonetheless, both studies have produced comparable outcomes. In our study, we have addressed two discussion points raised by Ozdemir et al.: whether the positive link between NIHRadopted research activity and mortality persists over time and if there is a difference between different types of research. The positive association persists over time, and only interventional research shows a persistently significant association with lower mortality rates. The SHMI was originally developed to identify outliers in a cohort of hospitals. 13 There have long been discussions on the merit of a

- Dr. Ximena Alvira Use **short phrases** (25-30 words). Use transitional words such as "therefore", "however", "thus",
- "conversely", "consistent with", "in contrast to"...
- **Avoid** adding "further studies are needed" without explaining why.
- **Remove** any unnecessary **words** (as long as it doesn't change the meaning of the text).

#### Comparison with the existing literature

The authors believe that this is the first study to systematically attempt to determine decision thresholds for patients with acute cough. The authors' previous study examined decision thresholds for patients with influenza-like illnesses, and found a test threshold of 5% and treatment threshold of 55% for rapid antigen testing for influenza and prescription of oseltamivir, respectively.

### Limitations

There are some limitations of our study that deserve note. Given the low incidence of diabetes in our cohort, we were underpowered to demonstrate a significant association of magnesium and potassium with hyperglycemia or diabetes. In addition, some children on prolonged parenteral nutrition could be at an increased risk of hyperglycemia that was not captured. Similarly, with a small number of events, we could not adjust for other potential risk factors, such as graft rejection, family history of diabetes, pretransplant use of diabetogenic medications, pretransplant magnesium levels and medications data beyond 2 weeks posttransplant, which could potentially be associated with diabetes after transplant. Although we did include pancreatic transplant recipients who are at a higher risk of diabetes, there were only two children in the entire cohort. Results from a single center also limit the generalizability of our findings. Despite these limitations, the findings demonstrate the risk of an important comorbid condition that impacts survival and quality of life of children after transplantation.

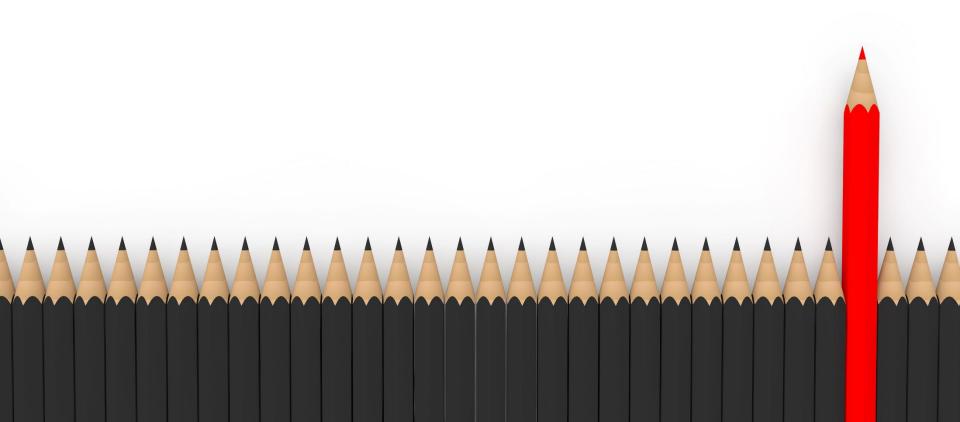
To really take advantage of this section, you will want to provide a counter point about how you tried to mitigate that limitation or why it may not threaten your entire study.

### Introduction

- Answers the question WHY.
- Should be clear, engaging, and coherent; should motivate the reader to continue reading.
- It is not intended to be a history lesson.



What makes will make your study unique? Interesting? Novel? What makes it worth publishing and reading?



# How to structure the Introduction

- What is known and why is it important and interesting?
- What is **not** known? (knowledge gap)
- What is the question we are trying to answer and how are we going to answer it?

### 1. Introduction Dr. Ximena Alvira

In recent decades, there has been impressive progress in the management of liver transplantation (LT), resulting in a constantly growing liver transplant recipient population, as reported by the last annual reports of the French Biomedicine Agency (2014) [1] and the OPTN (2012) [2], [3], [4]. Pre-existing chronic liver diseases and an initially aggressive surgical procedure using a large abdominal approach with vascular and biliary anastomosis, as well as the consequences of long-term immunosuppression can lead to subsequent surgical procedures for liver transplant recipients at a higher rate than in the general population [5], [6], [7], [8]. Moreover, it

transplantation centers. Therefore, it is important that non-liver <u>transplant surgeons</u> are aware of the specific complications that they may have to manage when they encounter these specific patients. In this sense, epidemiological data about the incidence, type of surgery, post-operative complications and mortality are required for this specific patient population to managed them regarding medical and surgical care. The literature on the subject is very weak and insufficient, as only one benchmark study published in the past ten years ago has reported this specific aspect [6]. Therefore, an update on the <u>epidemiology</u> of post-LT surgical procedures <u>seems</u> relevant.

aspect [6]. Therefore, an update on the <u>epidemiology</u> of post-LT surgical procedures seems relevant.

The aim of this monocentric <u>retrospective cohort study</u> was to assess the epidemiology of surgical procedures and their complications in the liver transplant recipient population to enhance their medical care.

# Questions to consider when reading (and writing) the Alvira introduction include:



- What is this study trying to prove or disprove?
- What is the author(s) trying to test or demonstrate?
- What do we already know about this topic and what gaps does this study try to fill or contribute a new understanding to the research problem?
- Why should I care about what is being investigated?
- Will this study tell me anything new related to the research problem I am investigating?



- Use **short** phrases (25-30 words).
- Use as few abbreviations as possible: <5 do not abbreviate. If you have to, make sure they are widely accepted abbreviations and acronyms.
- Do not include results, discussion or conclusions.
- Avoid words like "novel", "first time", "first ever"... Unless you can prove it is true.
- Avoid starting phrases with an abbreviation, acronym or number.
- Limit the number of references included (15-30).

### **About abbreviations**



Hospitals organize medications according to a formulary system to guide appropriate medication use. Medications approved on formulary have been assessed by a pharmacy and therapeutics committee and are provided in hospitals because of advantages in safety and efficacy, or because of cost savings (when safety and efficacy are equivalent to the safety and efficacy of alternative medications). Formulary medications are stocked in the pharmacy and may be ordered for approved indications. Nonformulary (NF) medications have not been formally assessed or there is no evidence suggesting that they have greater therapeutic value than formulary alternatives. NF medication orders must be reviewed on a case-by-case basis before the medication is dispensed.

### Why am I highlighting this?

### Dr. Ximena Alvira



## Abbreviations used

AIDS acquired immunodeficiency syndrome

HIV human immunodeficiency virus

ICD International Classification of Diseases and Causes of Death

OECD Organisation for Economic Co-operation and Development

WHO World Health Organization

### 138 pages and 5 abbreviations

https://www.who.int/patientsafety/information\_centre/Summary\_evidence\_on\_patient\_safety.pdf

#### Abbreviations

ASDR: Age-standardized death rate

ASIR: Age-standardized incidence rate

ASR: Age-standardized rate

DALY: Disability-adjusted life year

EAPC: Estimated annual percentage change

GBD: Global burden of disease

HR: Hormone receptor

SDI: Social-demographic index

UI: Uncertainty interval

YLD: Year lived with disability

YLL: Year of life lost

### 12 pages and 11 abbreviations

https://jhoonline.biomedcentral.com/articles/10.1186/s13045-019-0828-0/metrics

## Key takeaways

- Make perfectly clear what your paper will add to current knowledge
- Start by the Tables and Figures
- Organize yourself: set reasonable deadlines to draft each section
- Create a "just before sending" checklist
- Follow the Author Guidelines



Dr. Ximena Alvira

Thank you!
Please provide your feedback!

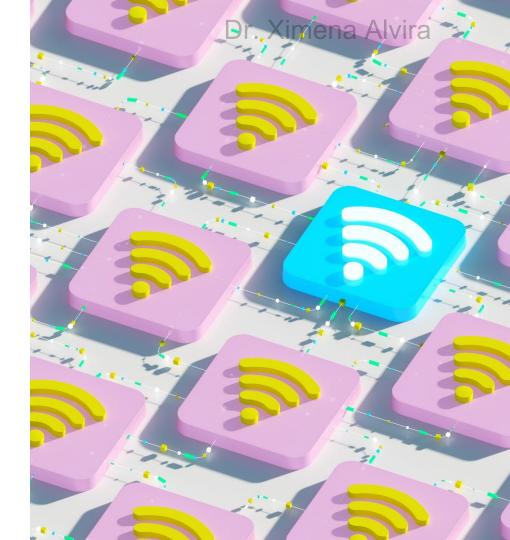




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## **Appendix**

Websites mentioned and other useful ones.





#### **ELSEVIER**

About Elsevier **Products & Solutions** 

Home > Journals > Rare



### Rare

Open research in rare diseases

Publishing options: OA Open Access 7

☐ Guide for authors Track your paper ∨

(i) Article Publishing Charge



\*This discount is valid for all authors who wish to publish Open Access and submit their article by February 29, 2024.

- Rare. Open Research in Rare Diseases is an openaccess, multidisciplinary, international journal that aims to have a clinical impact on rare disease patients. It publishes rigorously peer-reviewed articles on research that improves the well-being and quality of life of patients with rare diseases - diagnosed or undiagnosed - and their families. The journal has a broad scope, including but not limited to:
- -Direct clinical and psychosocial care: diagnosis, followup, treatment, therapeutic advances, clinical trials, quality of life
- -Increasing diagnostic yield and early diagnosis: implementation of new DNA techniques, provision of genetic tests and newborn screening
- -Pharmacology: development and regulation of orphan drugs
- -Application of technologies to diagnose or interpret genetic variants
- -Health economics and public policies: regulatory, reimbursement policies
- -Legal perspectives: data sharing, privacy issues
- -Ethics: primary prevention and family information
- -Patient contributions to research: late diagnosis (patient journey)
- -International collaborative projects, initiatives by associations and the rare disease community.
- The journal is open in every sense: patients are encouraged to contribute with their experiences and needs, as they are one of the pillars of medical research.

## Dr. Ximena Alvira https://www.springernature.com/gp/authors/campaigns/writing-in-english



### Author tutorials

Writing in English

Publishing in English allows you to reach the broadest possible audience and will help you achieve the goal that led you to publish in the first place—to add to our understanding of the world by informing other researchers about your research.

We have designed this tutorial to help non-native English speakers avoid some of the common errors that occur when writing for scholarly publication. Once complete you should understand the importance of good writing, be aware of common mistakes, and know how to avoid them.

You will also have the opportunity to test your learning with guizzes as we go.







English Self-paced

30 minutes







### www.orcid.org



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#### Reporting guidelines for main study types

Randomised trials	CONSORT	Extension
Observational studies	STROBE	Extension
Systematic reviews	PRISMA	Extension
Study protocols	SPIRIT	PRISMA-
Diagnostic/prognostic studies	STARD	TRIPOD
Case reports	CARE	Extension
Clinical practice guidelines	AGREE	<u>RIGHT</u>
Qualitative research	SRQR	COREQ
Animal pre-clinical studies	ARRIVE	
Quality improvement studies	SQUIRE	Extension

**CHEERS** 

See all 576 reporting guidelines

Economic evaluations





The CONSORT website is temporarily unavailable

#### Toolkits

Find practical help and resources to support you in:

#### **EQUATOR** highlights

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We're delighted to announce that our partnership with the Pan American

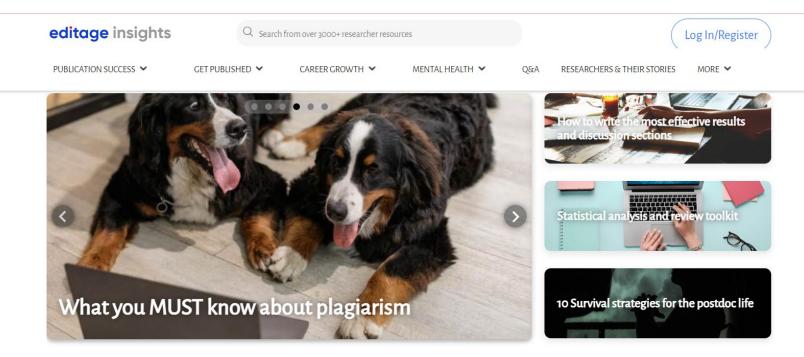
#### News

**EQUATOR Network Newsletter April 2023** 27/04/2023

CONSORT and PRISMA websites down -

### www.editage.com/insights Dr. Ximena Alvira





### **Explore by Content Type**

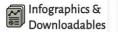
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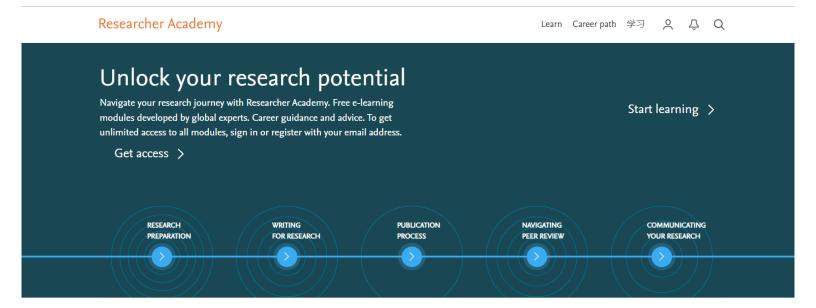






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PREPARATION

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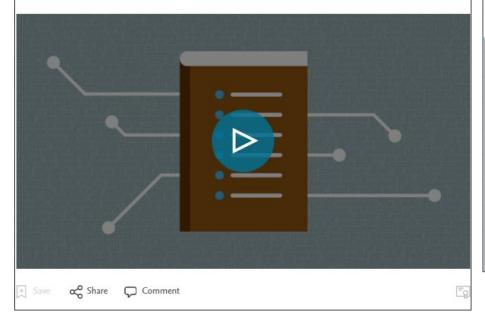
\*

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https://researcheracademy.elsevier.com/research-preparation/research-data-management/conduct-evidence-based-research

### How to conduct evidence-based research



https://researcheracademy.elsevier.com/writing-research/writing-skills/prepare-proposal-review-article

### How to prepare a proposal for a review article







### ImageJ Features



#### Runs Everywhere:

ImageJ is written in Java, which allows it to run on Linux, Mac OS X and Windows, in both 32-bit and 64-bit modes.

#### Open Source:

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#### Macros:

Automate tasks and create custom tools using macros. Generate macro code using the command recorder and debug it using the macro debugger. More than 300 macros are available on the ImageJ Web site.

#### Plugins:

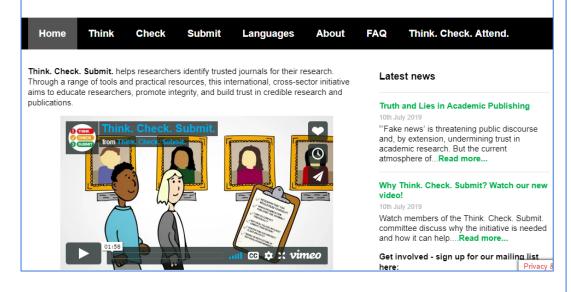
Extend ImageJ by developing plugins using ImageJ's built in text editor and Java compiler. More than 500 plugins are available.

#### Toolkit:

Use ImageJ as a image processing toolkit (class library) to develop applets, servlets or applications.



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# Additional Resources from ClinicalKey Nursing Dr. Ximena Alvira



- FACILITATING CLINICIAN-LED RESEARCH
- Clinical research 6: Writing and research
- Writing Research Grants: An Overview of the Process
- Research for emergency care
- The Use of iThenicate and Editorial Policy
- <u>Maximizing the academic nursing model in the era of COVID-19 and beyond</u>
- The Publisher's Perspective on Journal and Book Publishing

# Additional Resources from ClinicalKey Physician Dr. Ximena Alvira



- WASP (Write a Scientific Paper): Presenting scientific work
- Write a Scientific Paper (WASP): Guidelines for reporting medical research
- Write a Scientific Paper (WASP): Effective graphs and tables
- WASP (Write a Scientific Paper): Preparing an abstract
- <u>Essential Concepts in Clinical Research</u>
- <u>Clinical and Translational Science: Principles of Human Research</u>
- WASP (Write a Scientific Paper): Writing an academic research proposal